

# Insights into the Mechanism, Regio–/Diastereoselectivities and Ligand Role of Nickel–Initiated [3+2] Cycloadditions between Vinylcyclopropane and *N*–tosylbenzaldimine

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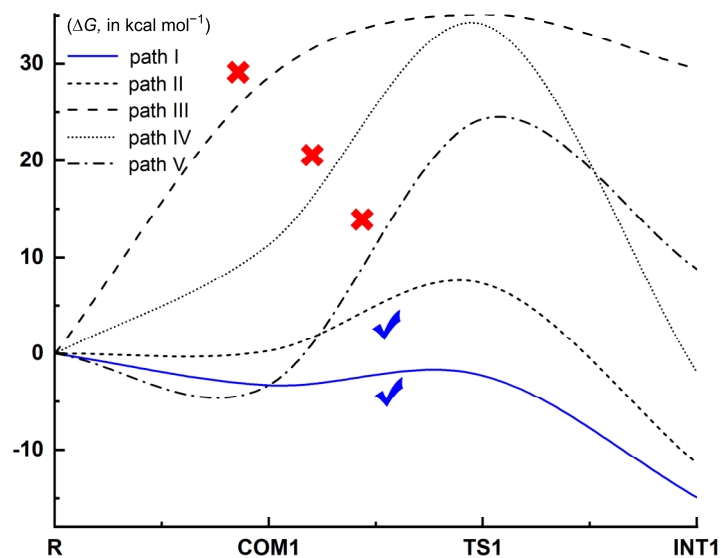
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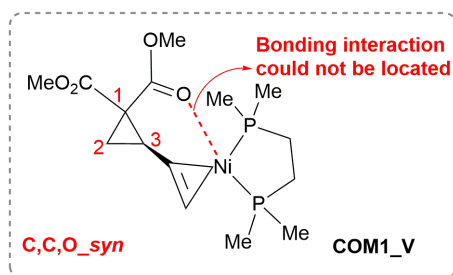
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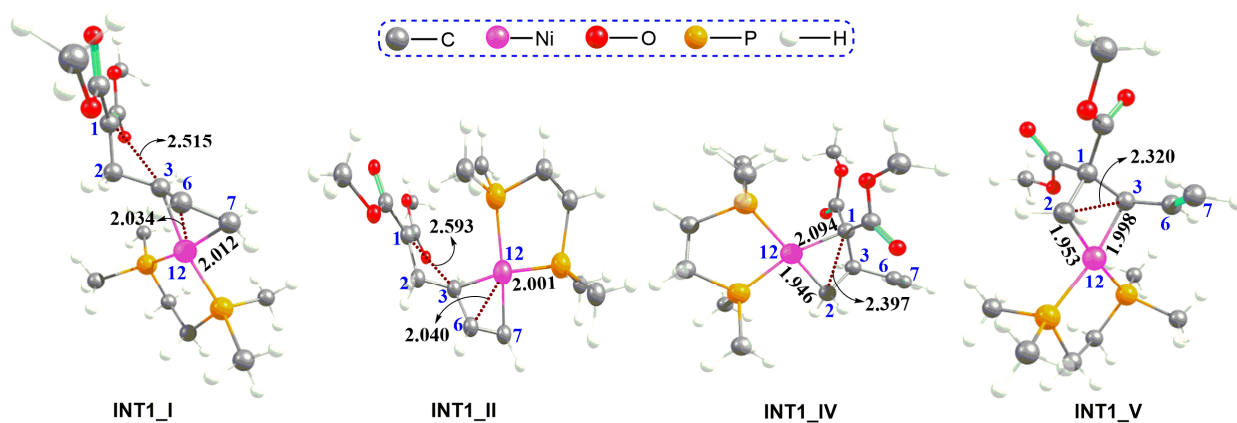
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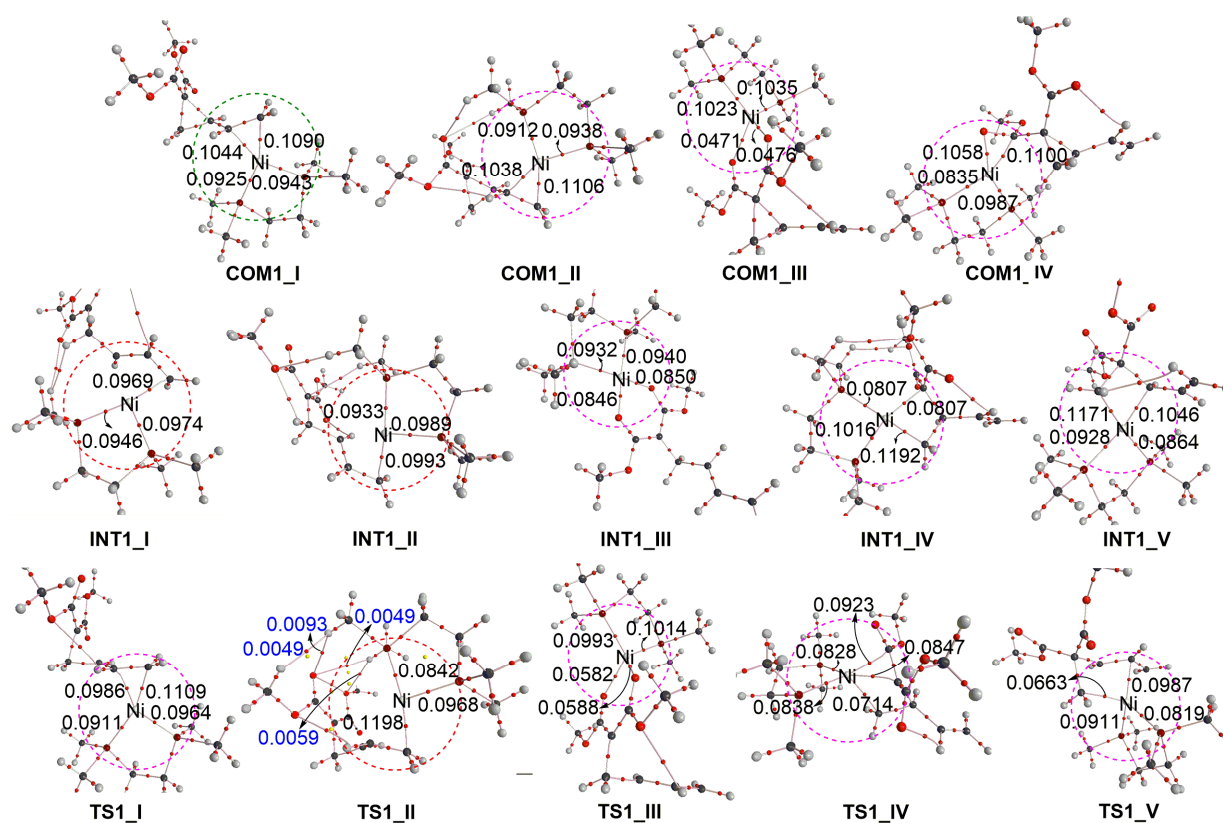
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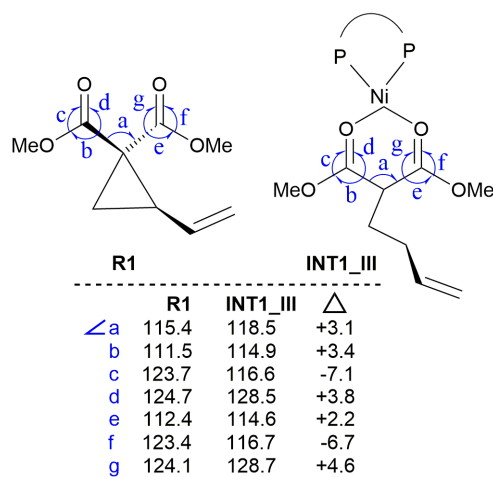
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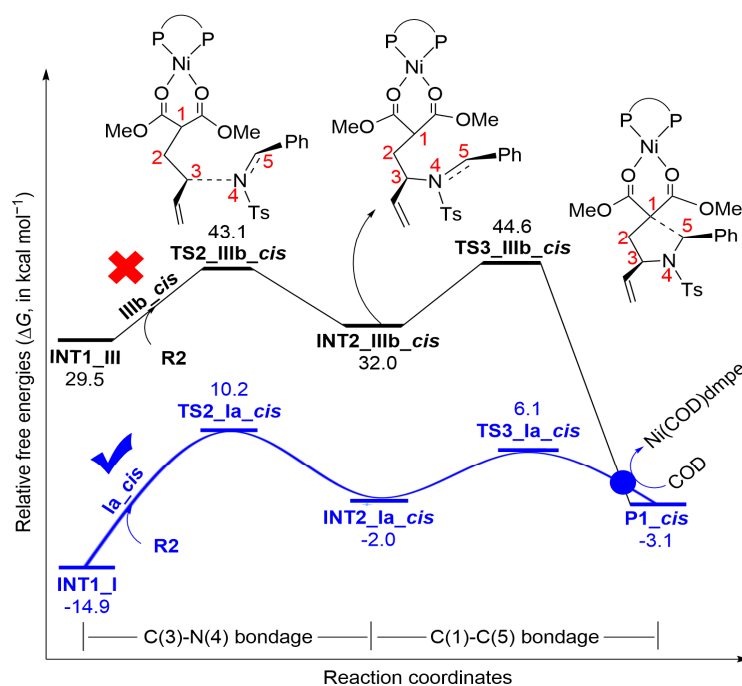
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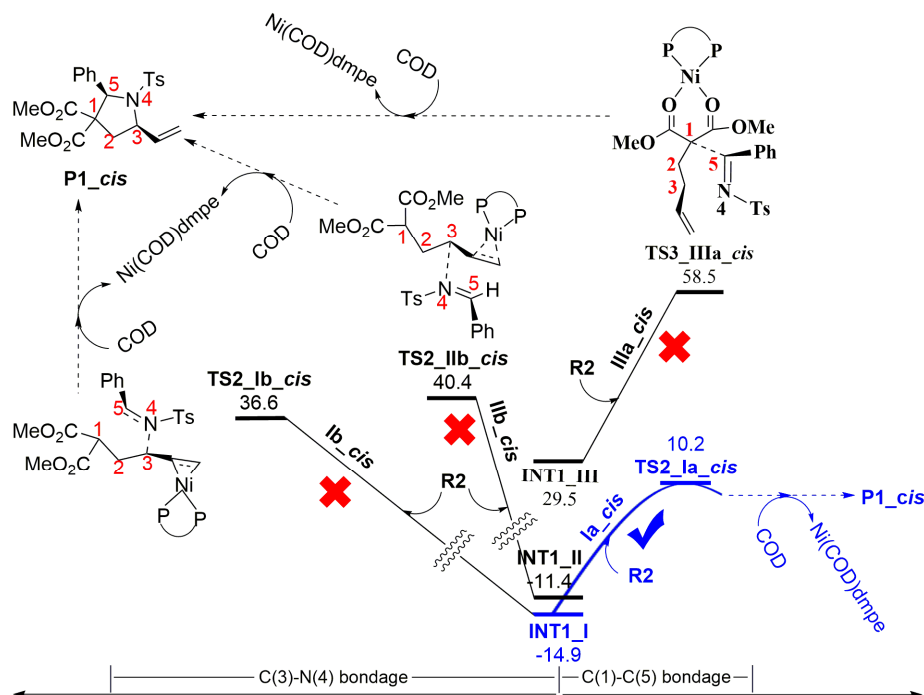
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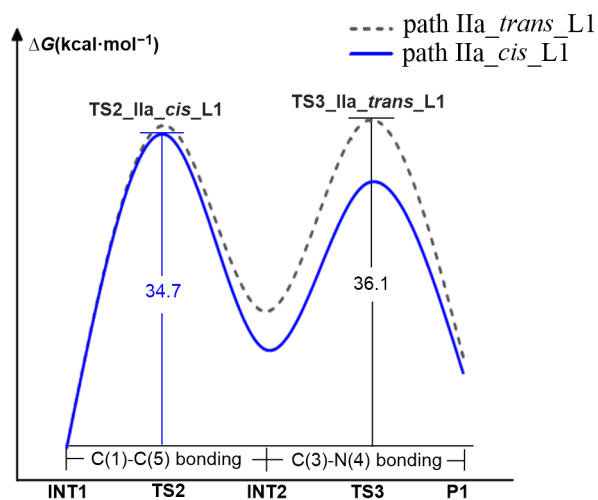
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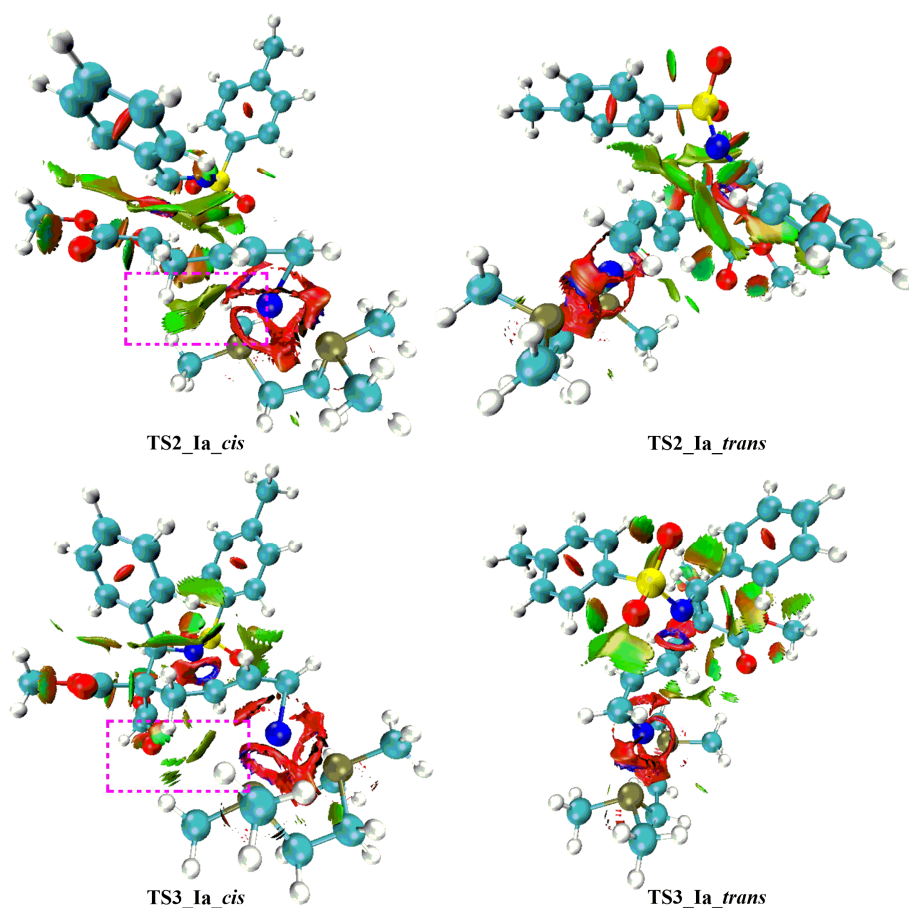
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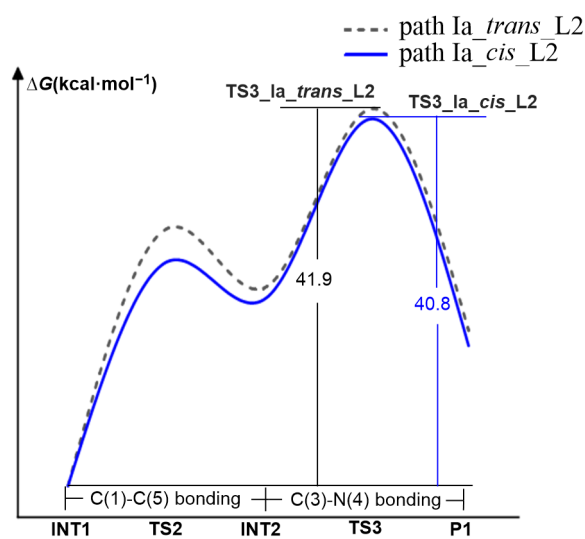
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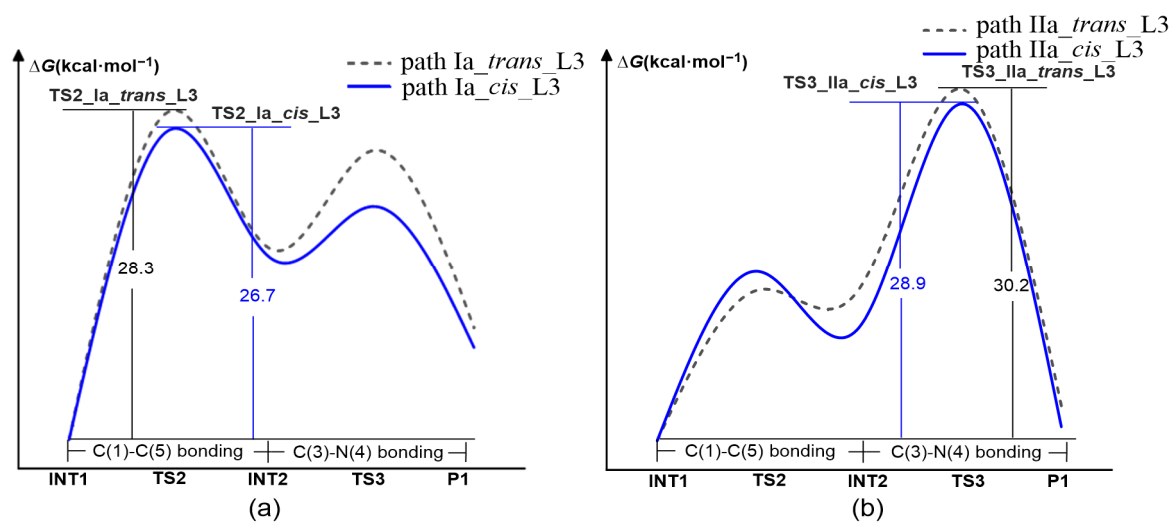
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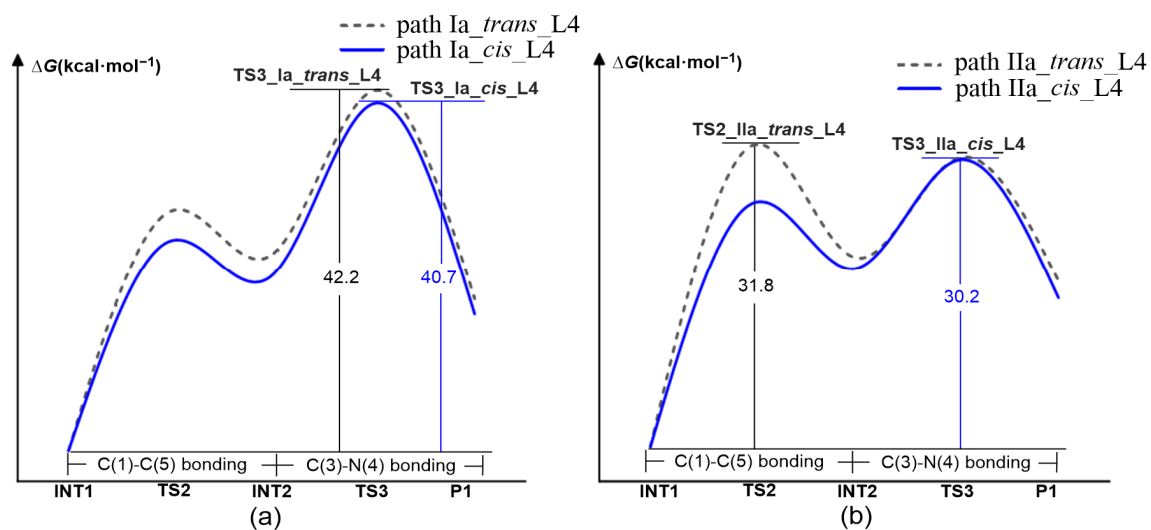
**Figure S9.** Noncovalent interaction (NCI) analysis results for transition states **TS2\_Ia\_cis**, **TS2\_Ia\_trans**, **TS3\_Ia\_cis** and **TS3\_Ia\_trans**.



**Figure S10.** Potential free energy surfaces (PESs) for paths **Ia\_cis\_L2** and **Ia\_trans\_L2**, obtained at IDSCRF(ACN)–B3LYP/DGDZVP level in acetonitrile solvent at 303 K.

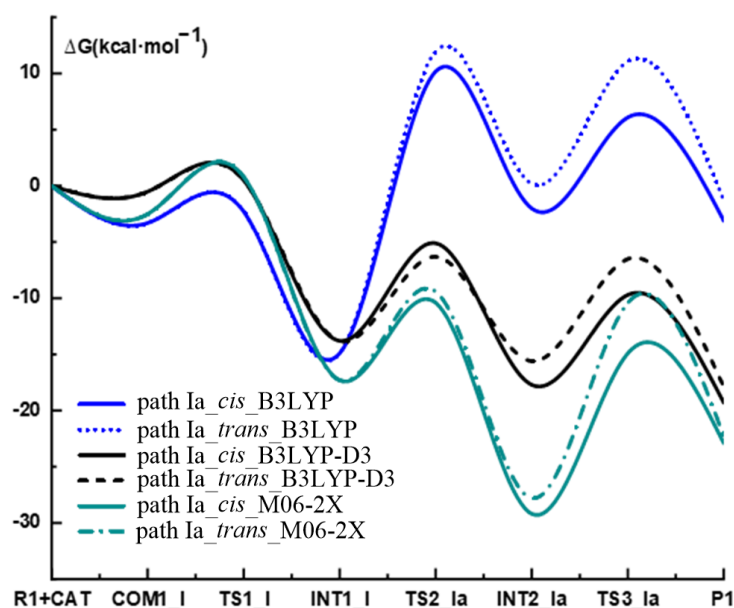


**Figure S11.** Potential free energy surfaces (PESs) for (a) paths Ia\_cis\_L3 and Ia\_trans\_L3, (b) paths IIa\_cis\_L3 and IIa\_trans\_L3, obtained at IDSCRF(ACN)-B3LYP/DGDZVP level in acetonitrile solvent at 303 K.



**Figure S12.** Potential free energy surfaces (PESs) for (a) paths Ia\_cis\_L4 and Ia\_trans\_L4, (b) paths IIa\_cis\_L4 and IIa\_trans\_L4, obtained at IDSCRF(ACN)-B3LYP/DGDZVP level in acetonitrile solvent at 303 K.





**Figure S13.** Potential free energy surfaces (PESs) for paths **Ia<sub>cis</sub>** and **Ia<sub>trans</sub>**, obtained at IDSCRF(ACN)–B3LYP/DGDZVP, IDSCRF(ACN)–B3LYP–D3/DGDZVP and IDSCRF(ACN)–M06–2X/DGDZVP levels in acetonitrile solvent at 303 K.

**Table S1.** Calculated free energy barriers ( $\Delta\Delta G$ , kcal·mol<sup>−1</sup>) for **TS2\_Ia<sub>cis</sub>** and **TS2\_Ia<sub>trans</sub>**, and corresponding rate constants ( $k$ , L·mol<sup>−1</sup>·s<sup>−1</sup>), reaction half-lives ( $t_{1/2}$ , h), dr ratios of **P1<sub>cis</sub>:P1<sub>trans</sub>** obtained by both theory and experiment.

TSs	$\Delta\Delta G$	$k$	$t_{1/2}$	$t^{\text{Expt.}}$	Yield (%)	<b>P1<sub>cis</sub>:P1<sub>trans</sub></b>	
	(kcal·mol <sup>−1</sup> )	(L·mol <sup>−1</sup> ·s <sup>−1</sup> )	(h)	(h)		dr <sup>Calc.</sup>	dr <sup>Expt.</sup>
<b>TS2_Ia<sub>cis</sub></b>	25.1	$4.969 \times 10^{-6}$	$5.590 \times 10^1$	5 h	>99	19.9:1	>99:1
<b>TS2_Ia<sub>trans</sub></b>	26.9	$2.500 \times 10^{-7}$	$1.111 \times 10^3$				

**Table S2.** Free energy barriers of RDS transition states ( $\Delta\Delta G_{\text{RDS}}$ ) located on paths **Ia<sub>cis</sub>** and **Ia<sub>trans</sub>**, obtained by employing B3LYP, B3LYP–D3 and M06–2X methods. The rate constants ( $k$ , L·mol<sup>−1</sup>·s<sup>−1</sup> or s<sup>−1</sup>), reaction half-lives ( $t_{1/2}$ , h) and corresponding experimental reaction time and yields are also presented for comparison.

Method	TS <sub>RDS</sub>	$\Delta\Delta G_{\text{RDS}}$	$k$	$t_{1/2}$	$t^{\text{Expt.}}$	Yield(%)
		(kcal·mol <sup>−1</sup> )	(L·mol <sup>−1</sup> ·s <sup>−1</sup> or s <sup>−1</sup> )	(h)	(h)	
B3LYP	<b>TS2_Ia<sub>cis</sub></b>	25.1	$4.969 \times 10^{-6}$	$5.590 \times 10^1$		
	<b>TS2_Ia<sub>trans</sub></b>	26.9	$2.500 \times 10^{-7}$	$1.111 \times 10^3$		
B3LYP–D3	<b>TS2_Ia<sub>cis</sub></b>	8.7	$3.351 \times 10^6$	$8.290 \times 10^{-11}$	5	>99
	<b>TS3_Ia<sub>trans</sub></b>	9.1	$1.724 \times 10^6$	$1.611 \times 10^{-10}$		
M06–2X	<b>TS3_Ia<sub>cis</sub></b>	14.3	$3.062 \times 10^2$	$9.071 \times 10^{-7}$		
	<b>TS3_Ia<sub>trans</sub></b>	17.4	$1.779 \times 10^0$	$1.562 \times 10^{-4}$		

**Table S3.** The optimized Cartesian coordinates (Å) for stationary points involved in the in situ generation of Ni(COD)L species from Ni(COD)<sub>2</sub> and different ligands (L), obtained at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	Cartesian coordinates				Species	Cartesian coordinates			
<b>Ni(COD)<sub>2</sub></b>	6	4.253141	−0.671189	0.784119	<b>Ni(COD)L2</b>	28	−0.374828	−0.079298	−0.115481
	6	3.370907	−1.723417	1.416298		15	1.565778	−1.095761	0.192287
	6	2.658502	0.982250	−1.321226		6	1.985828	−2.502335	−0.940909
	6	1.917102	−1.372036	0.936832		1	2.958566	−2.947948	−0.708723
	6	1.962687	1.121581	0.033617		1	1.213682	−3.272169	−0.846649
	6	1.630432	0.130390	0.981786		1	1.992133	−2.147559	−1.975084
	1	3.434998	−1.699886	2.509558		6	1.838748	−1.877885	1.851187
	1	1.812136	−1.741482	−0.088206		1	2.823867	−2.349527	1.928496
	1	2.241154	0.143269	−1.890525		1	1.742778	−1.118853	2.632213
	1	2.012151	2.138436	0.436573		1	1.068677	−2.638112	2.014159
	1	4.444208	0.218336	1.385771		6	3.013570	0.038733	0.016639
	1	3.616285	−2.741109	1.090281		6	4.345451	−0.392735	0.153835
	1	1.176727	−1.905226	1.546819		6	2.769585	1.394521	−0.265043
	1	1.465510	0.509384	1.996440		6	5.404742	0.509338	0.012454
	6	4.362018	−0.565461	−0.549745		1	4.570103	−1.435269	0.372151
	1	4.103715	−1.433468	−1.163283		6	3.828494	2.299683	−0.406834
	6	4.214129	0.767488	−1.229011		1	1.744685	1.748608	−0.374290
	1	4.664354	1.575156	−0.640240		6	5.148531	1.858013	−0.268333
	1	4.640140	0.799603	−2.238851		1	6.429446	0.160175	0.121166
	28	−0.000008	0.730983	−0.000002		1	3.621286	3.345260	−0.624914
	1	2.456982	1.885733	−1.910358		1	5.973782	2.558480	−0.378152
	1	−3.434974	−1.699917	−2.509541		6	−2.265110	−0.500719	0.092229
	6	−3.370885	−1.723438	−1.416281		6	−3.046385	−1.522279	−0.720865
	6	−4.253131	−0.671198	−0.784125		6	−4.182441	2.057812	0.198318
	6	−1.917085	−1.372045	−0.936817		6	−4.484407	−0.948867	−0.945658
	1	−3.616269	−2.741126	−1.090254		6	−4.957579	0.891439	0.790979
	1	−4.444183	0.218318	−1.385796		6	−5.097475	−0.361549	0.312658
	6	−4.362021	−0.565458	0.549737		1	−3.094903	−2.485486	−0.198070
	6	−1.630427	0.130385	−0.981782		1	−4.414304	−0.171905	−1.714914
	1	−1.812118	−1.741483	0.088223		1	−4.364769	2.124029	−0.882229
	1	−1.176705	−1.905233	−1.546799		1	−5.439699	1.099592	1.748142
	1	−4.103732	−1.433470	1.163273		1	−2.441810	−0.590840	1.168192
	6	−4.214136	0.767487	1.228999		1	−2.592862	−1.709854	−1.701331
	6	−1.962685	1.121582	−0.033614		1	−4.564186	2.989637	0.634368
	1	−1.465539	0.509366	−1.996447		1	−5.137638	−1.735832	−1.344108
	6	−2.658509	0.982255	1.321224		1	−5.675937	−1.057366	0.923965
	1	−4.664355	1.575155	0.640223		6	−2.091381	0.819817	−0.387723
	1	−4.640155	0.799612	2.238836		1	−2.237993	0.957230	−1.467650
	1	−2.012177	2.138429	−0.436588		6	−2.635020	1.989731	0.413827
	1	−2.241163	0.143280	1.890535		1	−2.419003	1.871367	1.482839
	1	−2.456999	1.885742	1.910354		1	−2.198284	2.946795	0.099016
<b>L1</b>	6	0.589998	0.432093	−0.236899	<b>L3</b>	6	−0.681273	0.354974	−1.164264
	6	−0.589996	−0.432085	0.236891		1	−0.783515	0.992550	−0.279184
	1	0.708752	0.356724	−1.326137		1	−0.760402	0.999503	−2.047990
	1	0.400526	1.488228	−0.007490		6	0.681360	−0.355767	−1.164412
	1	−0.708744	−0.356725	1.326130		1	0.783926	−0.993193	−0.279259
	1	−0.400526	−1.488219	0.007473		1	0.760158	−1.000460	−2.048042
	15	−2.206458	0.003092	−0.608811		15	−2.093284	−0.875353	−1.264185
	15	2.206457	−0.003077	0.608811		15	2.093400	0.874484	−1.265046
	6	−3.337323	−1.174079	0.290699		6	−2.007340	−1.659065	0.416706
	6	−2.638789	1.581894	0.283788		6	−1.691092	−3.026376	0.491148
	6	2.638776	−1.581904	−0.283751		6	−2.226616	−0.951822	1.613728
	6	3.337333	1.174061	−0.290728		6	−1.587576	−3.673602	1.730202
	1	−3.121337	−2.201973	−0.018966		1	−1.526176	−3.591723	−0.424464
	1	−3.234434	−1.105929	1.380310		6	−2.127062	−1.595393	2.850997
	1	−4.377183	−0.958185	0.023575		1	−2.483276	0.105238	1.582689
	1	−1.979738	2.392918	−0.041640		6	−1.806133	−2.958995	2.912412
	1	−3.664331	1.870392	0.029765		1	−1.341498	−4.732832	1.768647
	1	−2.562720	1.480193	1.373165		1	−2.300835	−1.034988	3.767570
	1	3.664331	−1.870377	−0.029752		1	−1.730910	−3.459076	3.875832
	1	1.979748	−2.392927	0.041726		6	−3.585605	0.209281	−1.091637
	1	2.562668	−1.480241	−1.373129		6	−4.835907	−0.427237	−0.952809
	1	3.234433	1.105896	−1.380337		6	−3.561771	1.612030	−1.183803
	1	3.121368	2.201965	0.018921		6	−6.018799	0.313067	−0.884168
	1	4.377192	0.958154	−0.023610		1	−4.886812	−1.513580	−0.892069
						6	−4.748997	2.355695	−1.126398
						1	−2.621946	2.145017	−1.296221
						6	−5.980346	1.711648	−0.973041
						1	−6.970845	−0.201130	−0.768280
						1	−4.705814	3.440743	−1.197996
						1	−6.900573	2.290033	−0.926108
						6	2.007333	1.659433	0.415243
						6	1.692109	3.027034	0.488593
						6	2.225529	0.952846	1.612855
						6	1.588584	3.675213	1.727151
						1	1.528007	3.591861	−0.427485
						6	2.125940	1.597355	2.849627

					1	2.481370	-0.104438	1.582661	
					6	1.806068	2.961258	2.909949	
					1	1.343331	4.734664	1.764751	
					1	2.298857	1.037453	3.766668	
					1	1.730822	3.462066	3.872989	
					6	3.585638	-0.210111	-1.091527	
					6	4.835732	0.426238	-0.950061	
					6	3.561989	-1.612725	-1.185794	
					6	6.018551	-0.314133	-0.880920	
					1	4.886534	1.512482	-0.887573	
					6	4.749160	-2.356440	-1.127851	
					1	2.622342	-2.145583	-1.300306	
					6	5.980280	-1.712585	-0.971886	
					1	6.970415	0.199927	-0.762946	
					1	4.706101	-3.441383	-1.201097	
					1	6.900462	-2.291008	-0.924531	
COD	6	-0.575966	-1.241541	0.606366	Ni(COD)L3	6	-0.820673	4.121970	-3.076166
	6	-1.902360	-0.763078	0.057343		6	-2.144416	3.797471	-2.427391
	6	1.715268	0.617758	-0.407074		6	1.513514	2.795701	-1.511111
	6	-1.585884	0.631252	-0.589732		6	-1.815518	2.679181	-1.374079
	6	0.696177	1.474589	0.334723		6	0.578245	1.677191	-1.975473
	6	-0.652926	1.488509	0.260552		6	-0.852226	1.610844	-1.900650
	1	-2.653369	-0.663842	0.848137		1	-2.875163	3.435806	-3.160263
	1	-1.121111	0.440177	-1.563041		1	-1.379770	3.175150	-0.499666
	1	1.478750	0.587260	-1.478220		1	1.240707	3.143851	-0.507389
	1	1.133543	2.165461	1.057593		1	1.010608	1.101153	-2.799982
	1	-0.373871	-1.004733	1.651081		1	-0.571651	3.547174	-3.969065
	1	-2.315023	-1.427005	-0.711147		1	-2.589766	4.658376	-1.912964
	1	2.701670	1.089011	-0.321051		1	-2.743818	2.203975	-1.032035
	1	-2.516440	1.180385	-0.780503		1	-1.310854	0.991924	-2.679712
	1	-1.157546	2.187124	0.930889		6	0.192366	4.648563	-2.368939
	6	0.467816	-1.452852	-0.211048		1	-0.041282	5.159567	-1.430073
	1	0.268186	-1.621805	-1.273123		6	1.569675	4.055908	-2.453309
	6	1.817722	-0.868997	0.097308		1	1.810767	3.738093	-3.475029
	1	2.030595	-0.881542	1.172163		1	2.362954	4.731675	-2.109036
	1	2.645530	-1.364335	-0.423409		1	2.527449	2.386016	-1.421277
						28	-0.028324	0.381012	-0.583967
						15	1.589360	-0.622432	0.510557
						6	0.750537	-1.924144	1.582628
						1	0.672257	-2.813751	0.947495
						1	1.362801	-2.203020	2.447426
						6	-0.655878	-1.473084	2.015625
						1	-1.216699	-2.310803	2.443357
						1	-0.594694	-0.701229	2.789486
						15	-1.554873	-0.706318	0.552682
						6	-3.011091	0.105325	1.353711
						6	-4.333315	-0.116748	0.931106
						6	-2.781163	1.078854	2.345558
						6	-5.396612	0.595901	1.499502
						1	-4.544065	-0.848959	0.156270
						6	-3.842720	1.784002	2.919631
						1	-1.766798	1.301175	2.672179
						6	-5.157630	1.544697	2.499263
						1	-6.412647	0.405274	1.159383
						1	-3.641868	2.525584	3.690278
						1	-5.984265	2.095571	2.942857
						6	-2.272041	-2.181357	-0.301781
						6	-2.958646	-3.206945	0.374573
						6	-2.096721	-2.290065	-1.691457
				6	-3.455179	-4.312286	-0.322812		
				1	-3.118896	-3.145887	1.449114		
				6	-2.595311	-3.395116	-2.392917		
				1	-1.565018	-1.502684	-2.221497		
				6	-3.274397	-4.409212	-1.709339		
				1	-3.984223	-5.096793	0.214511		
				1	-2.450549	-3.463284	-3.469181		
				1	-3.660992	-5.270179	-2.250788		
				6	2.621001	0.352449	1.699605		
				6	3.702891	1.104496	1.202117		
				6	2.316880	0.449567	3.068485		
				6	4.464744	1.914208	2.048248		
				1	3.961898	1.050313	0.146968		
				6	3.075572	1.266405	3.917183		
				1	1.490891	-0.112745	3.495344		
				6	4.152814	2.001013	3.411750		
				1	5.302245	2.478429	1.642640		
				1	2.823645	1.322197	4.974332		
				1	4.743998	2.632856	4.071148		
				6	2.859559	-1.633299	-0.374856		
				6	3.892319	-2.314276	0.295243		
				6	2.758966	-1.756842	-1.769951		
				6	4.801302	-3.103073	-0.416062		
				1	3.994453	-2.225436	1.375033		

						6	3.668741	-2.547226	-2.484410		
						1	1.966576	-1.226338	-2.294034		
						6	4.691253	-3.221714	-1.808633		
						1	5.595813	-3.624288	0.114342		
						1	3.579973	-2.631869	-3.565631		
						1	5.400708	-3.834155	-2.361387		
Ni(COD)L1	6	4.336308	0.524850	-0.282077	L4	15	-0.000044	-0.000027	-0.598808		
	6	3.800565	1.875752	0.124142		6	-0.628581	1.519782	0.277260		
	6	2.218645	-1.688810	0.215448		1	-0.030366	2.388146	-0.018403		
	6	2.266086	1.644929	0.375649		1	-1.664719	1.713286	-0.019865		
	6	1.605432	-0.678054	-0.757919		1	-0.588884	1.421204	1.368776		
	6	1.594489	0.759831	-0.680088		6	-1.001973	-1.304210	0.277283		
	1	3.954867	2.624043	-0.662225		1	-2.052554	-1.222623	-0.020926		
	1	2.166602	1.186065	1.365906		1	-0.649072	-2.298197	-0.017294		
	1	1.974565	-1.430129	1.253420		1	-0.939088	-1.218453	1.368792		
	1	1.568409	-1.071802	-1.779361		6	1.630550	-0.215561	0.277249		
	1	4.329569	0.309702	-1.351294		1	2.085144	-1.166244	-0.020852		
	1	4.264249	2.259517	1.041858		1	2.314875	0.586962	-0.017682		
	1	1.751653	2.614106	0.427820		1	1.525341	-0.203737	1.368830		
	1	1.547446	1.255037	-1.656823							
	6	4.320976	-0.517721	0.564671							
	1	4.247193	-0.313608	1.637158							
	6	3.782753	-1.848590	0.123676							
	1	4.066079	-2.075812	-0.911349							
	1	4.102571	-2.685698	0.757507							
	1	1.758888	-2.669660	0.032928							
	28	-0.192008	0.015481	-0.301627							
	15	-1.678315	-1.569951	0.008325							
	6	-2.003352	-2.995239	-1.131061							
	1	-2.888747	-3.568479	-0.833025							
	1	-2.146520	-2.625502	-2.150916							
	1	-1.135109	-3.661595	-1.132469							
	6	-1.643650	-2.437958	1.649777							
	1	-0.736099	-3.045352	1.719100							
	1	-1.616739	-1.702221	2.459116							
	1	-2.517100	-3.085698	1.787380							
	6	-3.352460	-0.720366	0.047877							
	1	-3.680025	-0.618829	-0.994411							
	1	-4.101746	-1.335218	0.561941							
	6	-3.229408	0.669786	0.700207							
	1	-4.137636	1.264540	0.541726							
	1	-3.098438	0.566045	1.784720							
	15	-1.705901	1.559764	0.055604							
	6	-1.573548	2.979697	1.239528							
	1	-2.519369	3.525312	1.334867							
	1	-1.275769	2.609934	2.225312							
	1	-0.800301	3.671359	0.891253							
	6	-2.367194	2.421920	-1.450455							
	1	-1.589053	3.067687	-1.869035							
	1	-2.635589	1.684148	-2.212447							
	1	-3.248236	3.031278	-1.218284							
	L2	15	1.645629	-0.649571		-0.000797	Ni(COD)L4	28	-0.615830	-0.276417	-0.205009
		6	2.270192	0.378296		-1.424704		15	-2.789425	0.033826	0.086961
		1	2.002666	1.437158		-1.343290		6	-3.566682	1.517346	-0.703182
		1	3.361674	0.296404		-1.462951		1	-4.645472	1.554048	-0.513795
		1	1.868788	-0.016994		-2.362886		1	-3.105043	2.427148	-0.308316
6		2.269665	0.374674	1.425979	1	-3.394200		1.490122	-1.783031		
1		2.002537	1.433814	1.346857	6	-3.401791		0.175130	1.828870		
1		1.867392	-0.022696	2.362913	1	-4.490674		0.294457	1.862882		
1		3.361084	0.292279	1.464848	1	-3.122865		-0.721891	2.389270		
6		-0.162680	-0.221476	-0.000383	1	-2.934296		1.037348	2.313407		
6		-0.656137	1.097347	0.000638	6	-3.844920		-1.339963	-0.572651		
6		-1.088906	-1.279309	-0.001051	6	1.122153		0.489469	0.235271		
6		-2.032300	1.349033	0.000957	6	1.649362		1.837241	-0.235235		
1		0.030297	1.941159	0.001207	6	3.584082		-1.510012	-0.182499		
6		-2.468793	-1.032227	-0.000706	6	3.182997		1.680177	-0.500122		
1		-0.729540	-2.306426	-0.001853	6	4.061097		-0.398293	0.738944		
6		-2.943472	0.283607	0.000283	6	3.907372		0.934630	0.606047		
1		-2.394147	2.374638	0.001734	1	1.467949		2.613658	0.518204		
1		-3.167666	-1.865359	-0.001236	1	3.301581		1.138155	-1.444773		
1		-4.012937	0.479924	0.000528	1	3.784032		-1.246516	-1.229263		
					1	4.571841		-0.737943	1.642086		
					1	1.262873		0.330491	1.308696		
					1	1.171585		2.171323	-1.163807		
					1	4.169912		-2.413957	0.026479		
					1	3.637256		2.669584	-0.639723		
					1	4.302741		1.555941	1.412291		
					6	1.267583		-0.661024	-0.574249		
					1	1.447454		-0.474742	-1.641641		
					6	2.062067		-1.849440	-0.062222		
					1	1.817261		-2.068475	0.984369		
					1	1.862896		-2.761607	-0.640001		
					1	-4.908542		-1.142715	-0.398579		

			1	-3.677031	-1.452566	-1.647818
			1	-3.574576	-2.281147	-0.084929

**Table S4.** The optimized Cartesian coordinates (Å) for stationary points on paths **I–V**, located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	Cartesian coordinates			Species	Cartesian coordinates				
R1	6	0.171793	1.159605	1.574858	TS1_III	6	-4.052991	-1.027585	-0.485834
	6	0.140978	0.107170	0.475185		6	-2.565415	-0.775747	-0.402748
	6	-0.171781	1.604626	0.183402		6	-4.177464	0.002917	0.575110
	1	-0.630016	1.089514	2.303467		1	-4.485539	-0.747427	-1.443869
	1	1.146788	1.424641	1.970605		1	-4.344157	-2.035047	-0.195098
	1	0.619399	2.100986	-0.370428		1	-4.019475	-0.325420	1.599693
	6	1.451726	-0.477046	0.042232		6	-1.741577	-1.533875	0.518887
	8	1.681622	-1.675342	-0.016942		8	-0.520913	-1.401037	0.710295
	8	2.374940	0.469637	-0.217722		8	-2.451363	-2.466641	1.219140
	6	3.701199	-0.007835	-0.548718		6	-1.706710	-3.242172	2.177931
	1	4.298312	0.889782	-0.706279		1	-2.436245	-3.908007	2.640114
	1	4.106463	-0.600527	0.274301		1	-0.924453	-3.822729	1.682249
	1	3.668615	-0.612721	-1.457326		1	-1.252896	-2.594405	2.932379
	6	-1.029214	-0.843760	0.457213		6	-1.906699	0.154593	-1.299142
	8	-1.808820	-1.003690	1.383458		8	-0.705158	0.471648	-1.285079
	8	-1.151934	-1.450603	-0.734441		8	-2.751676	0.699152	-2.220066
	6	-2.253098	-2.382112	-0.866360		6	-2.172634	1.659385	-3.125067
	1	-2.179486	-2.772504	-1.880869		1	-2.995928	1.993464	-3.757277
	1	-2.155078	-3.188401	-0.136071		1	-1.748941	2.503809	-2.575725
	1	-3.204453	-1.866018	-0.720079		1	-1.392192	1.195103	-3.733372
	6	-1.549324	2.025157	-0.172607		6	-4.533816	1.370567	0.350487
	6	-1.825711	2.918269	-1.132617		6	-4.659337	2.299081	1.339261
	1	-2.365666	1.592505	0.406565		1	-4.748002	1.664790	-0.676434
	1	-2.849388	3.215445	-1.346216		1	-4.987866	3.311721	1.122382
	1	-1.041365	3.382833	-1.728022		1	-4.454696	2.055051	2.380088
						28	0.923954	-0.066961	-0.061443
						15	2.761252	-0.855443	-0.880901
						6	3.458317	-2.454739	-0.221227
						1	4.488630	-2.624976	-0.556237
						1	3.437476	-2.443040	0.872746
						1	2.835817	-3.290045	-0.558126
						6	4.079416	0.371636	-0.345329
						6	3.196212	-1.055980	-2.681375
						15	1.929554	1.393268	1.153958
						6	3.750024	0.940912	1.044887
						1	5.076568	-0.086730	-0.361455
						1	4.082281	1.176380	-1.091066
						1	2.938456	-0.141904	-3.225325
						1	4.261835	-1.269188	-2.830203
						1	2.611712	-1.877868	-3.107648
						6	1.743160	1.619911	2.992674
						6	1.957357	3.180555	0.625066
						1	4.386857	1.802141	1.284246
						1	3.932513	0.181291	1.815213
						1	2.515923	2.277372	3.409514
						1	0.760978	2.052566	3.209005
						1	1.800045	0.646688	3.489970
						1	2.226534	3.247998	-0.433383
						1	0.958075	3.611639	0.744139
						1	2.669681	3.772597	1.212236
COMI_I	6	3.491391	0.598168	0.978565	INT1_III	6	3.881233	0.312069	-0.903643
	6	2.038145	0.941551	-1.189267		6	2.358408	0.195745	-0.754257
	6	2.970199	0.085211	-0.326024		6	4.583734	0.537571	0.413518
	1	2.149136	0.807139	-2.261161		1	4.256034	-0.605204	-1.366098
	1	1.909602	1.966918	-0.858347		1	4.088452	1.124529	-1.613037
	8	3.947043	-0.101247	1.871491		1	4.398377	1.492602	0.910013
	6	3.766578	-0.925929	-1.073815		6	1.557387	1.355939	-0.709612
	8	3.358526	-1.495794	-2.081079		8	0.286060	1.445740	-0.590327
	8	5.002026	-1.133193	-0.571493		8	2.245023	2.525011	-0.831477
	6	5.820500	-2.089084	-1.285226		6	1.477938	3.740746	-0.859466
	1	5.984744	-1.758674	-2.313511		1	2.210904	4.538882	-0.986108
	1	6.763217	-2.123764	-0.739298		1	0.773764	3.742432	-1.695915
	1	5.344032	-3.072080	-1.289174		1	0.931177	3.881908	0.076755
	6	-4.616208	-0.109704	-0.185253		6	1.735750	-1.060469	-0.574014
	6	-4.008055	0.596258	-1.412461		8	0.526707	-1.308185	-0.247985
	28	-1.411375	-0.146949	0.413971		8	2.549161	-2.135558	-0.763511
	15	-2.308261	1.276087	-1.000590		6	1.983163	-3.437048	-0.532557
	15	-3.325522	-1.184002	0.651100		1	2.797700	-4.139916	-0.713213
	6	-1.649916	1.713277	-2.674279		1	1.627820	-3.533089	0.496933
	1	-2.350571	2.338562	-3.239108		1	1.158667	-3.635764	-1.222660

	1	-0.705008	2.253144	-2.561787		6	5.337325	-0.438564	1.072150
	1	-1.451574	0.799315	-3.241908		6	5.964104	-0.393946	2.319545
	6	-2.704477	2.954467	-0.317075		1	5.458834	-1.377852	0.519238
	1	-3.324087	3.538719	-1.006814		1	6.558654	-1.229758	2.679138
	1	-3.231750	2.852900	0.636052		1	5.909779	0.487762	2.957715
	1	-1.773337	3.497616	-0.128818		28	-0.921738	-0.008239	-0.116707
	6	-3.503264	-2.799241	-0.242286		15	-2.439973	-1.628696	0.018711
	1	-3.191766	-2.684124	-1.284600		6	-3.027381	-2.309511	-1.591153
	1	-2.849988	-3.543600	0.223016		1	-3.813273	-3.057462	-1.439665
	1	-4.535676	-3.165902	-0.217128		1	-3.415334	-1.502981	-2.219316
	1	-5.136754	-1.977657	2.144467		1	-2.185794	-2.773869	-2.112841
	1	-3.516532	-2.312235	2.806201		6	-3.955827	-0.915758	0.823276
	1	-4.176826	-0.671246	2.885833		6	-2.014802	-3.119990	1.002040
	1	-3.870932	-0.121779	-2.230668		15	-2.511196	1.434891	0.447973
	1	-4.673042	1.384962	-1.785402		6	-4.141001	0.544432	0.369633
	1	-4.937871	0.633061	0.555368		1	-4.843187	-1.517948	0.598104
	1	-5.503327	-0.692256	-0.462521		1	-3.798145	-0.963204	1.907190
	8	3.357217	1.939151	1.101545		1	-1.739181	-2.824427	2.017824
	6	3.740139	2.497303	2.378881		1	-2.856299	-3.819154	1.043728
	1	3.535683	3.565120	2.301290		1	-1.155887	-3.614927	0.542676
	1	3.150160	2.050723	3.182584		6	-2.724514	2.934576	-0.590252
	1	4.802290	2.323524	2.566380		6	-2.408619	2.092442	2.167408
	6	-4.125356	-1.575888	2.272767		1	-4.898709	1.055917	0.973821
	6	0.511158	0.139978	0.776490		1	-4.478736	0.581498	-0.672769
	6	-0.033360	-0.926346	1.560867		1	-3.575967	3.532337	-0.248738
	6	1.380659	-0.127678	-0.401428		1	-1.814712	3.536828	-0.536825
	1	1.168064	-1.043839	-0.946612		1	-2.883141	2.641400	-1.631402
	1	0.666089	1.108367	1.256337		1	-2.390746	1.266252	2.883390
	1	0.217410	-1.959133	1.311234		1	-1.481477	2.661355	2.279467
	1	-0.223427	-0.765874	2.622833		1	-3.260368	2.744144	2.390831
TS1_I	6	-3.659764	0.834720	-0.804340	COM1_IV	6	-2.274146	-1.469952	-0.517789
	6	-2.028459	0.835234	1.221382		6	-2.086469	0.067148	-0.443878
	6	-3.114560	0.168181	0.385166		6	-0.991628	0.580867	0.484149
	1	-2.060645	0.559348	2.272543		28	0.889678	0.381332	0.022214
	1	-1.911371	1.900770	1.047997		15	1.686176	-1.625202	0.241000
	8	-4.418941	0.353343	-1.642159		15	2.936935	1.176322	-0.489128
	6	-3.745724	-1.005250	0.997869		6	1.340351	-2.642960	1.743467
	8	-3.303320	-1.554774	2.012718		1	0.283490	-2.924124	1.763125
	8	-4.867405	-1.455232	0.380602		1	1.950505	-3.552648	1.762830
	6	-5.492924	-2.602952	0.990946		1	1.549500	-2.053796	2.640803
	1	-5.801329	-2.378902	2.015362		6	1.456513	-2.862259	-1.118978
	1	-6.364249	-2.818432	0.371410		1	2.047021	-3.766455	-0.934413
	1	-4.811811	-3.457747	0.998900		1	0.401784	-3.139854	-1.198423
	6	4.588623	-0.210086	0.146211		1	1.764243	-2.427027	-2.074349
	6	3.999860	0.206894	1.507744		6	3.548193	-1.438844	0.299549
	28	1.388956	-0.038425	-0.427229		1	3.809843	-1.163955	1.328728
	15	2.322767	1.010229	1.277339		1	4.043643	-2.393639	0.086273
	15	3.273486	-1.034303	-0.902420		6	4.010010	-0.341981	-0.677721
	6	1.661441	1.060095	3.002772		1	3.899496	-0.686170	-1.713344
	1	2.374100	1.518284	3.697480		1	5.069515	-0.101524	-0.529356
	1	0.731724	1.636461	3.018365		6	3.345490	2.161935	-1.998922
	1	1.437038	0.044332	3.341050		1	4.425309	2.310941	-2.107751
	6	2.754038	2.788446	0.987249		1	2.964728	1.649214	-2.887055
	1	3.385024	3.187127	1.789391		1	2.858461	3.139964	-1.936526
	1	3.280437	2.893337	0.034140		6	3.804240	2.136439	0.836050
	1	1.834937	3.379359	0.930339		1	4.851267	2.328807	0.577399
	6	3.407900	-2.817689	-0.423136		1	3.292615	3.092314	0.984217
	1	3.115482	-2.945652	0.623028		1	3.765561	1.585290	1.780123
	1	2.724564	-3.409823	-1.039060		8	-0.425351	1.730829	0.186307
	1	4.427724	-3.194948	-0.557701		8	-1.382495	0.322262	1.820375
	1	5.029326	-1.479908	-2.585146		6	-3.321501	0.909341	-0.600050
	1	3.388477	-1.607497	-3.268521		8	-4.133842	0.786997	-1.511335
	1	4.092876	-0.011007	-2.964225		8	-3.464047	1.830061	0.372992
	1	3.842749	-0.677238	2.137930		1	-1.558585	-1.979153	0.122309
	1	4.686075	0.869605	2.048814		6	-0.550649	0.898915	2.824488
	1	4.926449	0.675209	-0.406461		1	0.476418	0.512479	2.755103
	1	5.461548	-0.861302	0.275103		1	-0.520131	1.990789	2.744867
	8	-3.188378	2.111715	-0.929894		1	-0.983906	0.609032	3.785003
	6	-3.587893	2.812854	-2.123736		6	-4.631555	2.676136	0.272029
	1	-3.093160	3.783320	-2.069940		1	-5.543891	2.076840	0.319302
	1	-3.267357	2.271162	-3.017116		1	-4.573121	3.350595	1.126369
	1	-4.673016	2.941556	-2.150160		1	-4.615581	3.241036	-0.663082
	6	4.027599	-1.036267	-2.588674		6	-1.687858	-0.712362	-1.679837
	6	-0.525625	0.359016	-0.838658		1	-0.622630	-0.801791	-1.870449
	6	0.066591	-0.577367	-1.752125		1	-2.317350	-0.579024	-2.554066
	6	-1.292119	-0.058218	0.316924		6	-3.597753	-2.130435	-0.597790
	1	-1.162964	-1.080652	0.661856		1	-4.335623	-1.676393	-1.256586
	1	-0.635879	1.398934	-1.143620		6	-3.912823	-3.248431	0.073548
	1	-0.200751	-1.633170	-1.676601		1	-4.892038	-3.710220	-0.028551
	1	0.279886	-0.251609	-2.770211		1	-3.204792	-3.738154	0.740836
INT1_I	6	3.875896	1.150752	-0.363135	TS1_IV	6	-2.195033	-1.046969	-1.301691
	6	1.660462	-0.066905	-0.764282		6	-1.646303	-0.353065	-0.049377
	6	3.095100	-0.041572	-0.253464		6	-0.978336	-1.159330	1.016825

	1	1.425076	-1.097654	-1.040769		28	0.401358	-0.061687	0.031846
	1	1.552759	0.550977	-1.659656		15	2.372403	-1.146194	-0.201577
	8	5.050330	1.376671	-0.015241		15	1.435119	1.933666	-0.149136
	6	3.539060	-1.249803	0.369906		6	3.143805	-2.450773	0.870938
	8	2.832192	-2.275393	0.508610		1	2.624739	-3.402650	0.722773
	8	4.839367	-1.264855	0.839713		1	4.205689	-2.593058	0.638920
	6	5.254952	-2.493847	1.452506		1	3.047362	-2.169700	1.924066
	1	5.207258	-3.329475	0.747368		6	2.749483	-1.839040	-1.884697
	1	6.289143	-2.328657	1.763080		1	3.805178	-2.114943	-1.987924
	1	4.638522	-2.735811	2.323838		1	2.135790	-2.728903	-2.059627
	6	-3.559378	-1.908302	-0.558322		1	2.502056	-1.103945	-2.656891
	6	-4.398406	-0.618424	-0.574859		6	3.661003	0.210658	-0.063341
	28	-1.428005	0.445363	0.209753		1	3.837797	0.366497	1.008473
	15	-3.593099	0.677436	0.493138		1	4.614208	-0.110946	-0.501794
	15	-1.749969	-1.508545	-0.771874		6	3.172380	1.517636	-0.713199
	6	-4.433047	2.245692	0.028118		1	3.134853	1.404668	-1.803883
	1	-5.520851	2.141837	0.097206		1	3.863638	2.342732	-0.500553
	1	-4.108822	3.046368	0.698497		6	0.958648	3.264448	-1.345321
	1	-4.162897	2.520410	-0.995062		1	1.688456	4.081696	-1.367019
	6	-4.212019	0.339688	2.195566		1	0.873733	2.839585	-2.350309
	1	-5.306361	0.361159	2.223491		1	-0.020708	3.664746	-1.067011
	1	-3.863767	-0.639404	2.535497		6	1.754122	2.929244	1.384818
	1	-3.821672	1.097439	2.880700		1	2.436820	3.765587	1.196039
	6	-1.482611	-1.534787	-2.595006		1	0.806715	3.324270	1.764597
	1	-2.070822	-0.743826	-3.068681		1	2.182533	2.287618	2.160400
	1	-0.427050	-1.352724	-2.812704		8	-0.540452	-0.652829	2.086532
	1	-1.775102	-2.501726	-3.017534		8	-1.150746	-2.524351	0.877346
	1	-1.185664	-3.893112	-0.735030		6	-2.267132	0.974085	0.281234
	1	0.200997	-2.879173	-0.239875		8	-2.403897	1.905379	-0.504777
	1	-1.130549	-3.166940	0.891143		8	-2.760627	1.006452	1.536796
	1	-4.451508	-0.207431	-1.590144		1	-2.115662	-2.127935	-1.211820
	1	-5.427227	-0.809518	-0.248507		6	-0.573449	-3.321715	1.921824
	1	-3.662426	-2.417378	0.407286		1	0.503655	-3.150814	1.996829
	1	-3.897667	-2.609851	-1.329356		1	-1.037826	-3.096832	2.886401
	8	3.149673	2.183780	-0.967727		1	-0.769404	-4.358737	1.643175
	6	3.843776	3.427348	-1.107198		6	-3.404431	2.240924	1.926585
	1	3.134757	4.109541	-1.582011		1	-4.265023	2.444036	1.284878
	1	4.148648	3.826731	-0.134691		1	-3.723617	2.085636	2.957215
	1	4.734091	3.321565	-1.735463		1	-2.700369	3.074333	1.866015
	6	-0.881859	-3.010468	-0.162510		6	-0.899808	-0.378565	-1.669146
	6	0.158786	1.714082	0.303544		1	-0.114882	-1.040385	-2.025218
	6	-0.847203	2.079332	1.231854		1	-0.990717	0.581354	-2.165106
	6	0.682287	0.409893	0.292864		6	-3.478319	-0.617306	-1.922768
	1	0.309396	2.332551	-0.581206		1	-3.605832	0.447249	-2.110715
	1	-0.821678	1.678570	2.247135		6	-4.447387	-1.471497	-2.280844
	1	-1.337072	3.044435	1.128793		1	-5.361562	-1.121059	-2.754415
	1	0.713387	-0.140131	1.238268		1	-4.358150	-2.544567	-2.116695
COMI_II	6	2.745050	0.175467	-1.044691	INT1_IV	6	-0.068492	2.275306	0.129220
	6	2.689269	-2.332820	-0.217347		6	-1.560915	0.410044	-0.064290
	6	2.639210	-0.822177	0.068496		6	-1.466041	1.932585	-0.385779
	1	3.197376	-2.936038	0.530116		1	-1.443652	1.995267	-1.475028
	1	2.876710	-2.607609	-1.249736		6	-2.013125	-0.405180	-1.208201
	8	2.568765	1.376805	-0.908367		8	-1.961168	-0.026804	-2.385649
	6	3.223415	-0.434608	1.393080		8	-2.521634	-1.637058	-0.917115
	8	2.922594	-0.963809	2.455253		6	-3.004283	-2.388975	-2.047950
	8	4.181446	0.507126	1.291049		1	-3.355404	-3.336171	-1.635148
	6	4.831870	0.887808	2.526178		1	-3.827553	-1.864130	-2.540118
	1	5.336737	0.027265	2.971126		1	-2.208859	-2.563852	-2.776668
	1	5.554843	1.653621	2.246030		6	-1.831854	0.074980	1.344628
	1	4.102203	1.289746	3.232673		8	-1.880889	0.906225	2.259791
	6	-2.892779	2.223038	0.275853		8	-1.985106	-1.255019	1.628972
	6	-3.726104	1.192521	1.059927		6	-2.233361	-1.562052	3.014062
	28	-1.373498	-0.609467	-0.296838		1	-2.349715	-2.646523	3.053654
	15	-3.471784	-0.514650	0.330539		1	-1.396617	-1.247669	3.644039
	15	-1.160514	1.571981	-0.056889		1	-3.146029	-1.073683	3.366086
	6	-4.217141	-1.614799	1.618832		6	-2.594127	2.817198	0.092348
	1	-5.236862	-1.309740	1.879543		6	-3.379312	3.543475	-0.717161
	1	-4.239632	-2.643464	1.246177		1	-2.740839	2.872698	1.169382
	1	-3.598592	-1.595472	2.521063		1	-4.163783	4.189015	-0.324929
	6	-4.765933	-0.584996	-0.996680		1	-3.264540	3.518789	-1.800981
	1	-5.765383	-0.367123	-0.603345		28	0.532029	0.429544	-0.016637
	1	-4.528997	0.135365	-1.785188		15	2.607457	1.060511	-0.047861
	1	-4.770242	-1.583352	-1.444824		15	1.259857	-1.728611	-0.096400
	6	-0.212787	2.186791	1.412968		6	3.715134	-0.421405	0.174415
	1	-0.536099	1.658634	2.314906		1	4.721141	-0.222962	-0.213057
	1	0.849408	1.980957	1.254620		1	3.811403	-0.594683	1.252834
	1	-0.349763	3.264001	1.562080		6	3.217175	2.279417	1.186367
	1	-0.750192	3.784965	-1.084917		1	4.288763	2.464734	1.058554
	1	0.484427	2.581280	-1.543033		1	2.675016	3.221197	1.067704
	1	-1.120638	2.538793	-2.303203		1	3.036176	1.902119	2.196542
	1	-3.386368	1.145407	2.102175		6	3.139506	1.781266	-1.660043
	1	-4.787525	1.469399	1.078408		1	2.573321	2.695961	-1.854730
	1	-3.352245	2.408454	-0.703187		1	4.209067	2.016148	-1.649159

	1	-2.857950	3.186370	0.799417		1	2.935889	1.075323	-2.469892
	8	3.019017	-0.393088	-2.238993		6	1.240271	-2.601056	1.531546
	6	3.041301	0.500614	-3.375638		1	1.777271	-3.554155	1.476785
	1	3.256431	-0.132268	-4.236459		1	1.699937	-1.975302	2.301842
	1	2.072882	0.991874	-3.493169		1	0.202319	-2.785772	1.817362
	1	3.821300	1.254995	-3.249836		6	3.077568	-1.642019	-0.511171
	6	-0.583078	2.740127	-1.371421		1	3.589432	-2.568669	-0.226545
	6	0.243759	-1.610033	-0.863620		1	3.155736	-1.550966	-1.601340
	6	-0.900265	-2.456173	-0.691101		6	0.632134	-3.026689	-1.243847
	6	1.368508	-1.716543	0.123671		1	-0.398281	-3.270052	-0.975189
	1	1.055163	-1.873783	1.152655		1	0.643826	-2.653224	-2.271662
	1	0.546625	-1.375458	-1.885527		1	1.242840	-3.934016	-1.185543
	1	-1.419372	-2.835796	-1.572988		1	-0.051344	2.542600	1.191732
	1	-0.952205	-3.127479	0.168558		1	0.446669	3.042108	-0.459639
TS1_II	6	2.735746	0.462554	-1.009079	TS1_V	6	-0.873887	0.349298	-0.912066
	6	2.778694	-2.106418	-0.844148		6	-2.209805	0.107086	-0.197644
	6	2.841113	-0.735134	-0.184725		1	-0.583333	-0.504719	-1.514436
	1	3.379309	-2.849497	-0.322064		1	-0.800848	1.317218	-1.396804
	1	2.956076	-2.093075	-1.915551		1	-1.194326	1.445366	1.183529
	8	2.765372	1.638718	-0.643101		6	-3.298000	1.104707	-0.486914
	6	3.211663	-0.734326	1.224135		8	-4.339758	0.826636	-1.064151
	8	3.376689	-1.771539	1.882831		8	-2.974367	2.353893	-0.102223
	8	3.370337	0.491341	1.795935		6	-3.925405	3.392030	-0.440255
	6	3.730445	0.478718	3.191514		1	-3.487136	4.316503	-0.065474
	1	4.687945	-0.026701	3.343340		1	-4.062270	3.441901	-1.522718
	1	3.808325	1.528466	3.477828		1	-4.885020	3.197629	0.043454
	1	2.962872	-0.020927	3.788250		6	-2.733147	-1.316843	-0.247490
	6	-2.714934	2.179820	0.528348		8	-2.352388	-2.182050	-1.017955
	6	-3.532034	1.073694	1.218496		8	-3.663110	-1.519356	0.703009
	28	-1.238521	-0.578567	-0.410751		6	-4.258940	-2.838017	0.743949
	15	-3.291169	-0.537642	0.307521		1	-4.983020	-2.802722	1.557376
	15	-0.985701	1.585122	0.110752		1	-4.756034	-3.057022	-0.203786
	6	-3.957363	-1.801089	1.476469		1	-3.494757	-3.592981	0.941877
	1	-4.975991	-1.556917	1.797129		6	-1.183729	0.409985	0.860364
	1	-3.964590	-2.779415	0.986904		6	-0.529084	-0.568685	1.715894
	1	-3.311772	-1.865205	2.357036		6	0.538155	-0.127472	2.522014
	6	-4.597657	-0.492744	-1.001969		1	-0.801110	-1.621046	1.664588
	1	-5.593166	-0.341485	-0.570162		1	1.059375	-0.851790	3.144618
	1	-4.388549	0.315023	-1.709057		1	0.575085	0.900323	2.877263
	1	-4.588372	-1.436560	-1.555130		28	0.841577	0.037295	0.434210
	6	-0.063794	1.893240	1.685143		15	2.145703	-1.595605	-0.434615
	1	-0.430222	1.222898	2.468512		15	2.396932	1.557128	0.066275
	1	0.997450	1.687081	1.522722		6	2.548037	-3.164948	0.474618
	1	-0.184592	2.930026	2.019479		1	1.682318	-3.834767	0.444790
	1	-0.613299	3.942111	-0.502193		1	3.411326	-3.689699	0.048583
	1	0.695588	2.878566	-1.080727		1	2.757045	-2.932714	1.523482
	1	-0.864129	2.918421	-1.938282		6	1.989353	-2.259471	-2.169852
	1	-3.173252	0.918372	2.243251		1	2.839841	-2.888938	-2.457220
	1	-4.593460	1.341797	1.284150		1	1.071451	-2.851190	-2.252811
	1	-3.189560	2.463805	-0.419199		1	1.912776	-1.428071	-2.878248
	1	-2.672070	3.083667	1.148132		6	3.841039	-0.790218	-0.509269
	8	2.595619	0.148384	-2.338264		1	4.267738	-0.859658	0.499153
	6	2.510677	1.259290	-3.247398		1	4.512226	-1.339961	-1.181450
	1	2.442154	0.815452	-4.241729		6	3.726764	0.685789	-0.931112
	1	1.624453	1.864793	-3.046054		1	3.427238	0.752442	-1.984754
	1	3.401454	1.889291	-3.175968		1	4.692161	1.199554	-0.839381
	6	-0.385647	2.970508	-0.955484		6	2.133697	3.089679	-0.948351
	6	0.223630	-1.778524	-1.243138		1	3.075265	3.598243	-1.186203
	6	-1.039340	-2.409663	-0.889056		1	1.628136	2.829214	-1.883498
	6	1.372400	-2.034866	-0.426692		1	1.489941	3.784611	-0.399287
	1	1.183923	-2.362442	0.594041		6	3.379824	2.258243	1.478547
	1	0.411458	-1.542889	-2.289549		1	4.218438	2.876501	1.137013
	1	-1.666420	-2.749887	-1.715211		1	2.725081	2.868044	2.109412
	1	-1.055647	-3.092706	-0.036657		1	3.766473	1.440651	2.094112
INT1_II	6	-3.361187	-0.874929	-0.409837	INT1_V	6	-1.004685	0.568331	-1.006119
	6	-1.717331	0.650766	-1.661842		6	-1.904307	0.080682	0.150746
	6	-2.686590	0.379642	-0.518477		1	-1.193781	-0.006093	-1.917541
	1	-2.164396	1.389627	-2.349042		1	-1.083266	1.638038	-1.230972
	1	-1.573249	-0.254660	-2.252029		1	-0.851702	-1.007667	1.782097
	8	-4.210685	-1.255693	0.416988		6	-2.095202	1.261224	1.104536
	6	-3.025710	1.517761	0.280294		8	-3.070526	2.002606	1.073359
	8	-2.574390	2.670761	0.088114		8	-1.065825	1.460632	1.947618
	8	-3.900979	1.310176	1.329021		6	-1.168559	2.618747	2.807864
	6	-4.214989	2.476752	2.103346		1	-0.256697	2.615577	3.404925
	1	-4.693142	3.247576	1.491006		1	-1.233894	3.532085	2.212057
	1	-4.906764	2.134453	2.876329		1	-2.048026	2.539246	3.451084
	1	-3.320056	2.903506	2.566590		6	-3.338779	-0.398209	-0.143848
	6	2.302639	-1.873634	1.617223		8	-4.041362	-0.978925	0.670733
	6	3.377707	-0.786600	1.778696		8	-3.748858	-0.125157	-1.399040
	28	1.471664	0.407486	-0.567837		6	-5.084270	-0.562464	-1.736552
	15	3.510342	0.189019	0.201476		1	-5.235486	-0.264099	-2.774153
	15	0.764944	-1.171251	0.819307		1	-5.166869	-1.647112	-1.633630
	6	4.490126	1.678109	0.649442		1	-5.819172	-0.078806	-1.088368



	1	5.430719	1.393407	1.132149		6	-0.954625	-1.007755	0.695363
	1	4.713436	2.255636	-0.251683		6	-1.011876	-2.374158	0.149301
	1	3.914183	2.308937	1.331886		6	-1.570375	-2.865199	-0.982103
	6	4.654897	-0.785940	-0.863221		1	-0.481654	-3.101020	0.770670
	1	5.611553	-0.950820	-0.356666		28	0.617505	-0.140768	-0.181323
	1	4.207766	-1.752868	-1.109081		15	2.063624	1.078932	-1.313382
	1	4.831962	-0.244984	-1.796920		15	2.352339	-1.092610	0.864898
	6	-0.283642	-0.643578	2.237107		6	1.999671	1.176664	-3.153322
	1	0.199346	0.179744	2.771297		1	1.040958	1.607044	-3.457203
	1	-1.245908	-0.294889	1.853847		1	2.810197	1.794946	-3.553750
	1	-0.443208	-1.476118	2.930468		1	2.072405	0.171441	-3.577998
	1	-0.271629	-3.384885	0.949450		6	2.112604	2.859260	-0.821125
	1	-1.012538	-2.376863	-0.328402		1	2.899139	3.401092	-1.357281
	1	0.569838	-3.129425	-0.600435		1	1.145798	3.320780	-1.041573
	1	3.096403	-0.080277	2.568984		1	2.289906	2.943419	0.254776
	1	4.346040	-1.218653	2.056904		6	3.792388	0.471507	-0.948885
	1	2.667347	-2.674148	0.962849		1	4.002469	-0.342546	-1.653130
	1	2.058815	-2.334416	2.581179		1	4.539546	1.253677	-1.127085
	8	-2.972929	-1.777598	-1.416280		6	3.858277	-0.047283	0.500090
	6	-3.646543	-3.041743	-1.403925		1	3.844019	0.792815	1.205150
	1	-3.223066	-3.608695	-2.236213		1	4.784212	-0.605880	0.681058
	1	-3.480403	-3.578551	-0.464658		6	2.408168	-1.305107	2.696884
	1	-4.724567	-2.919185	-1.548676		1	3.376063	-1.694027	3.030696
	6	-0.074191	-2.662079	0.150481		1	2.220498	-0.344098	3.184077
	6	0.686220	1.320988	-2.213468		1	1.621849	-2.000976	3.004438
	6	1.929311	1.893055	-1.827086		6	2.854464	-2.766866	0.259044
	6	-0.366452	1.240384	-1.294131		1	3.788105	-3.097381	0.726993
	1	-0.386407	1.966940	-0.479964		1	2.064944	-3.488459	0.486203
	1	0.639628	0.715015	-3.120597		1	2.986387	-2.746093	-0.826461
	1	2.773329	1.828813	-2.510274		1	-1.476538	-3.919971	-1.229515
	1	1.935354	2.764765	-1.170976		1	-2.113811	-2.248765	-1.693849
COMI_III	6	-4.172506	-0.989314	-0.273218					
	6	-2.701485	-0.616370	-0.140390					
	6	-3.867696	0.211545	0.561381					
	1	-4.608524	-0.823248	-1.251562					
	1	-4.485123	-1.895087	0.232976					
	1	-3.870499	0.055683	1.637306					
	6	-1.838681	-1.384965	0.812208					
	8	-0.619221	-1.299941	0.908046					
	8	-2.566622	-2.193107	1.612745					
	6	-1.831655	-2.927132	2.619253					
	1	-2.584045	-3.493542	3.167339					
	1	-1.112600	-3.600370	2.147478					
	1	-1.307757	-2.238299	3.285720					
	6	-1.983949	0.009942	-1.296998					
	8	-0.791457	0.292699	-1.325586					
	8	-2.803957	0.259147	-2.340515					
	6	-2.203416	0.917846	-3.480629					
	1	-3.014275	1.046234	-4.197082					
	1	-1.791537	1.886128	-3.187569					
	1	-1.412343	0.294841	-3.903362					
	6	-4.196696	1.590186	0.133945					
	6	-4.396155	2.597743	0.996412					
	1	-4.307866	1.766941	-0.934413					
	1	-4.665045	3.591410	0.646893					
	1	-4.303893	2.460412	2.072611					
	28	0.931769	-0.077069	-0.035736					
	15	2.706166	-1.017372	-0.773025					
	6	3.418675	-2.503013	0.114835					
	1	4.453828	-2.710860	-0.183815					
	1	3.389147	-2.334949	1.196019					
	1	2.807644	-3.385966	-0.101427					
	6	4.051534	0.260234	-0.427995					
	6	3.193610	-1.491016	-2.516649					
	15	1.934627	1.525419	0.951343					
	6	3.753774	1.029332	0.869421					
	1	5.043626	-0.209894	-0.392914					
	1	4.053028	0.950723	-1.281144					
	1	2.945820	-0.673267	-3.201471					
	1	4.263701	-1.716622	-2.608960					
	1	2.622969	-2.372767	-2.827906					
	6	1.861325	2.072507	2.739064					
	6	2.006814	3.217205	0.154774					
	1	4.408007	1.905613	0.972169					
	1	3.941265	0.385118	1.738028					
	1	2.675899	2.759078	3.002894					
	1	0.906473	2.574871	2.928283					
	1	1.913920	1.195778	3.392936					
	1	2.232195	3.112598	-0.911209					
	1	1.029616	3.704077	0.242300					
	1	2.764047	3.863824	0.615715					

**Table S5.** The optimized Cartesian coordinates (Å) for stationary points on paths **I–III** which involved in the [3+2] cycloaddition processes of **INT1**, located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	Cartesian coordinates				Species	Cartesian coordinates			
R2	16	-0.630889	1.690548	0.154977	TS2_Ic_cis	6	-1.067093	-1.172400	-1.179317
	8	-0.468248	2.360107	-1.151993		6	-1.413516	-2.654898	-1.240584
	8	-0.853220	2.522968	1.349786		6	0.303324	-0.988748	-0.520427
	6	-1.944833	0.483852	0.028318		1	0.860222	-1.905914	-0.717433
	6	-2.324072	0.011454	-1.232073		1	0.105491	-0.956606	0.566247
	6	-3.350882	-0.931189	-1.318150		8	-0.600929	-3.562447	-1.084673
	6	-3.999364	-1.408530	-0.166127		6	-1.205070	-0.468619	-2.500821
	6	-3.597866	-0.909649	1.085819		8	-0.934824	0.713005	-2.689346
	6	-2.574620	0.033456	1.193951		8	-1.556130	-1.301757	-3.510078
	1	-1.835951	0.381042	-2.129817		6	-1.711840	-0.686070	-4.805717
	1	-3.654495	-1.294331	-2.298052		1	-0.766749	-0.251588	-5.141492
	1	-4.094470	-1.257429	1.989607		1	-2.019247	-1.490876	-5.474037
	1	-2.280169	0.420409	2.165745		1	-2.478063	0.091354	-4.764093
	6	-5.087880	-2.451843	-0.267606		8	-2.718924	-2.890442	-1.452479
	1	-5.827726	-2.336930	0.529833		6	-3.099683	-4.279974	-1.547049
	1	-5.605052	-2.398836	-1.229771		1	-2.870747	-4.805141	-0.616444
	1	-4.663297	-3.459276	-0.177525		1	-4.174855	-4.272640	-1.726610
	7	0.711507	0.699493	0.534172		1	-2.576615	-4.764192	-2.375504
	6	1.668157	0.681109	-0.335582		6	1.147041	0.205788	-0.898947
	1	1.599515	1.257122	-1.267311		1	1.484165	0.256089	-1.936631
	6	2.890242	-0.097089	-0.137488		6	1.184484	1.392630	-0.153752
	6	3.876794	-0.059925	-1.142183		1	0.694826	1.415845	0.819172
	6	3.101955	-0.875684	1.019988		6	2.140019	2.390883	-0.466591
	6	5.058465	-0.790437	-0.995183		1	2.405175	2.579269	-1.508304
	1	3.714988	0.541204	-2.035374		1	2.250342	3.243015	0.199661
	6	4.281370	-1.602510	1.161687		6	-1.804551	-0.239101	1.347947
	1	2.339400	-0.900833	1.793785		7	-2.191766	-0.490036	0.052898
	6	5.260734	-1.561209	0.155514		16	-3.622938	0.144352	-0.425087
	1	5.817626	-0.759094	-1.773002		8	-4.748614	-0.419722	0.355202
	1	4.445461	-2.203068	2.053405		8	-3.743184	0.036833	-1.897788
	1	6.180383	-2.130644	0.271991		6	-3.559202	1.902116	-0.002492
						6	-2.616119	2.722601	-0.632662
						6	-2.588086	4.085037	-0.328791
						6	-3.491764	4.648942	0.590508
						6	-4.426503	3.802304	1.206394
						6	-4.466328	2.433740	0.916099
						1	-1.851284	4.721500	-0.816722
						1	-1.913553	2.298747	-1.345356
						1	-5.133849	4.212241	1.925263
						1	-5.188638	1.784492	1.401750
						6	-3.467266	6.132422	0.884847
						1	-3.953555	6.697782	0.080325
						1	-3.992344	6.365509	1.815496
						1	-2.441585	6.506135	0.967721
						28	3.072057	0.637850	-0.134673
						15	5.025774	1.525960	0.330545
						15	3.956020	-1.389950	0.004308
						6	5.694194	2.895446	-0.695393
						1	6.719476	3.137770	-0.397442
						1	5.686071	2.606650	-1.749805
				1	5.068960	3.784043	-0.573597		
				6	5.189862	2.140677	2.058728		
				1	4.518676	2.991117	2.206825		
				1	4.907573	1.355763	2.765545		
				1	6.218831	2.454908	2.261969		
				6	6.281777	0.161562	0.182012		
				1	6.548971	0.085978	-0.878757		
				1	7.197173	0.412035	0.730333		
				6	3.236356	-2.693887	1.084004		
				1	3.097940	-2.299519	2.094324		
				1	2.263922	-3.010754	0.700242		
				1	3.900677	-3.563313	1.126178		
				6	4.196878	-2.237243	-1.614153		
				1	4.745709	-1.585935	-2.299868		
				1	4.751701	-3.172177	-1.484962		
				1	3.223303	-2.459092	-2.060255		
				6	5.677087	-1.160943	0.682259		
				1	5.591449	-1.153576	1.775374		
				1	6.312375	-2.013099	0.415240		
				6	-1.898407	-1.206888	2.410806		
				6	-2.474173	-2.497599	2.246158		
				6	-1.414725	-0.887317	3.712994		
				6	-2.556652	-3.398524	3.308606		
				1	-2.874145	-2.769508	1.273429		

					6	-1.505252	-1.791488	4.770046	
					1	-0.966406	0.091691	3.881711	
					6	-2.074370	-3.063120	4.583878	
					1	-3.007331	-4.376650	3.143475	
					1	-1.126298	-1.506805	5.750933	
					1	-2.140922	-3.769411	5.408346	
					1	-1.353649	0.727811	1.578659	
TS2_Ia_cis	6	-0.426732	-2.195834	-0.301620	TS2_Ila_cis	6	0.239832	-2.006728	0.368056
	6	0.744012	-1.728252	0.577394		6	0.675432	-3.434528	0.483247
	6	1.071233	-0.243348	0.611030		6	-0.516874	-1.731354	-0.926705
	6	-2.195434	-0.969926	0.132018		1	-0.118811	-2.423446	-1.673833
	7	-1.905913	0.350490	0.088754		1	-0.245477	-0.725380	-1.269185
	6	-0.867437	-3.549445	0.100111		8	0.624152	-4.239355	-0.444573
	1	1.635637	-2.293338	0.281795		6	-0.379865	-1.406994	1.563873
	1	0.537102	-2.052298	1.599686		8	-1.430577	-0.723600	1.551497
	8	-0.419316	-4.158894	1.076741		8	0.263979	-1.565730	2.720895
	6	-0.232840	-1.910361	-1.735875		6	-0.289391	-0.900605	3.878778
	8	0.690041	-1.205758	-2.162458		1	-1.304528	-1.253061	4.075647
	8	-1.150953	-2.442714	-2.577815		1	0.371671	-1.170827	4.702435
	6	-0.998408	-2.100916	-3.969386		1	-0.285246	0.178712	3.719602
	1	-0.019188	-2.413258	-4.342145		8	1.169338	-3.789962	1.693497
	1	-1.790372	-2.644837	-4.486664		6	1.610233	-5.158192	1.811149
	1	-1.124347	-1.025510	-4.108389		1	2.424403	-5.361082	1.111532
	8	-1.858581	-4.091830	-0.657580		1	1.957307	-5.261213	2.840015
	6	-2.279627	-5.415667	-0.276410		1	0.784382	-5.847622	1.617739
	1	-2.675173	-5.421462	0.742263		6	-2.047464	-1.877407	-0.842871
	1	-3.060111	-5.686809	-0.988962		1	-2.353528	-2.516116	-0.000094
	1	-1.446902	-6.121318	-0.341838		6	-2.728382	-2.395843	-2.048449
	1	0.752038	0.370286	-0.227335		1	-3.748185	-2.746370	-1.872103
	6	1.372919	0.384409	1.826473		6	-2.252592	-2.515564	-3.306276
	1	1.514306	-0.239290	2.711447		1	-2.869905	-2.931496	-4.099456
	6	1.851128	1.720135	1.862187		1	-1.245615	-2.211868	-3.584232
	1	1.460885	2.453949	1.153859		6	1.952439	-0.902125	0.209849
	1	2.189413	2.131231	2.810437		1	2.095403	-0.797828	1.287162
	1	-2.723440	-1.428854	-0.706005		6	2.942130	-1.830089	-0.426940
	6	-2.576754	-1.493271	1.475872		6	3.817585	-2.574890	0.380853
	6	-3.541338	-2.510674	1.576242		6	3.055450	-1.938345	-1.824237
	6	-2.051800	-0.941005	2.658767		6	4.782504	-3.411369	-0.191687
	6	-3.965359	-2.972776	2.826975		1	3.751216	-2.491871	1.463553
	1	-3.973627	-2.930816	0.671345		6	4.012659	-2.779206	-2.397052
	6	-2.466761	-1.409611	3.907090		1	2.396377	-1.350103	-2.456149
	1	-1.330641	-0.132500	2.589806		6	4.881271	-3.520124	-1.583495
	6	-3.425313	-2.428821	3.997769		1	5.459159	-3.973032	0.449281
	1	-4.720679	-3.753846	2.885860		1	4.087538	-2.853895	-3.480193
	1	-2.049587	-0.974668	4.813253		1	5.630661	-4.169896	-2.030777
	1	-3.752852	-2.787928	4.971170		7	1.696460	0.226734	-0.522241
	16	-2.132003	1.178609	-1.297592		16	1.216004	1.570721	0.250122
	8	-2.650747	0.359199	-2.424919		8	1.077099	1.401696	1.724525
	8	-0.925292	2.000693	-1.575383		8	0.055278	2.159585	-0.467917
	6	-3.439365	2.345722	-0.857077		6	2.584827	2.726763	-0.004757
	6	-3.115047	3.557138	-0.237511		6	2.637762	3.500242	-1.168664
	6	-4.136427	4.445695	0.109262		6	3.714117	4.369688	-1.369066
	6	-5.484234	4.144475	-0.152172		6	4.744356	4.484100	-0.420566
	6	-5.782470	2.924016	-0.781037		6	4.667804	3.696772	0.741038
	6	-4.771907	2.024254	-1.132714		6	3.598810	2.821787	0.954020
	1	-3.878449	5.390820	0.584184		1	3.749817	4.968895	-2.277411
	1	-2.076283	3.809452	-0.042882		1	1.842710	3.429833	-1.905893
	1	-6.817486	2.673229	-1.006979		1	5.452669	3.768112	1.492313
	1	-5.016550	1.089569	-1.630135		1	3.549235	2.225241	1.861035
	6	-6.585010	5.099616	0.252365		6	5.888367	5.451817	-0.627557
	1	-6.249396	6.140038	0.206242		1	6.813697	5.079523	-0.177506
	1	-7.463602	4.993730	-0.390814		1	6.072802	5.632491	-1.690662
	1	-6.908114	4.906306	1.282826		1	5.667318	6.421296	-0.163953
	28	3.018759	0.649422	0.646211		28	-2.619663	-0.197880	0.060236
	15	4.806586	1.878828	0.950311		15	-3.676002	0.713220	-1.606983
	15	4.046238	-0.425745	-1.001406		15	-3.393136	1.510526	1.377992
	6	4.738531	3.715623	0.955425		6	-2.682273	1.038218	-3.115583
	1	5.743499	4.142044	1.039267		1	-2.409403	0.092783	-3.588259
	1	4.274020	4.071497	0.031830		1	-3.253853	1.645717	-3.825172
	1	4.135138	4.057719	1.800618		1	-1.772037	1.571683	-2.828569
	6	5.684329	1.465978	2.517326		6	-4.193713	2.428335	-1.083451
	1	5.059333	1.744627	3.370191		1	-3.316333	3.074746	-1.201845
	1	5.872388	0.390083	2.568090		1	-4.970139	2.809465	-1.756848
	1	6.637760	2.000806	2.580456		6	-5.247024	-0.022648	-2.228882
	6	6.021531	1.451865	-0.394390		1	-5.702970	0.637791	-2.973750
	1	5.807984	2.110459	-1.244324		1	-5.049864	-0.993212	-2.686440
	1	7.047256	1.663859	-0.071721		1	-5.946158	-0.162640	-1.399575
	6	4.018171	-2.244058	-1.261906		6	-4.660802	2.427700	0.380416
	1	4.271365	-2.764170	-0.333898		1	-5.616526	1.900114	0.481688
	1	3.015188	-2.540821	-1.576551		1	-4.808614	3.447583	0.752711
	1	4.735023	-2.529782	-2.038971		6	-2.207608	2.797665	1.940518
	6	3.620158	0.253675	-2.659480		1	-2.708749	3.551164	2.557531
	1	3.698392	1.344369	-2.653234		1	-1.404361	2.322005	2.508116

	1	4.292775	-0.148991	-3.424505		1	-1.743789	3.268217	1.070954
	1	2.589771	-0.024792	-2.890132		6	-4.259226	1.006323	2.923206
	6	5.854479	-0.022351	-0.802189		1	-4.682576	1.871592	3.444089
	1	6.254717	-0.684924	-0.025435		1	-5.061793	0.302217	2.686417
	1	6.402078	-0.238373	-1.726918		1	-3.547886	0.506103	3.586117
INT2_Ia_cis	6	-0.933620	1.057057	1.069876	INT2_Ila_cis	6	-0.967814	1.065698	1.168881
	6	-1.282587	2.032419	2.225192		6	-1.161033	2.338193	2.033144
	6	0.532675	1.371441	0.665141		6	0.575877	0.880873	1.009892
	1	1.118512	1.333535	1.582771		1	1.012149	0.952016	2.008206
	1	0.574645	2.412410	0.336902		1	0.930509	1.749560	0.452284
	8	-0.541400	2.909029	2.635715		8	-0.283288	3.133406	2.315581
	6	-0.994629	-0.365837	1.668573		6	-1.532983	-0.078743	2.038045
	8	-0.005296	-0.952501	2.086532		8	-0.909587	-0.555398	2.977127
	8	-2.228511	-0.869857	1.738762		8	-2.774161	-0.449766	1.717632
	6	-2.352774	-2.172771	2.355897		6	-3.377889	-1.457345	2.562376
	1	-2.026272	-2.126098	3.397794		1	-3.459741	-1.085993	3.586965
	1	-3.410954	-2.419803	2.290036		1	-4.361485	-1.637482	2.132546
	1	-1.756815	-2.907278	1.812052		1	-2.781146	-2.371175	2.547403
	8	-2.502768	1.803909	2.740978		8	-2.434109	2.462473	2.454517
	6	-2.906584	2.671641	3.828081		6	-2.724633	3.617632	3.278674
	1	-2.933867	3.710700	3.492489		1	-2.522487	4.536809	2.724520
	1	-3.902485	2.332317	4.111401		1	-3.784029	3.539271	3.520934
	1	-2.213197	2.574471	4.666366		1	-2.118540	3.594419	4.186992
	6	1.174140	0.492470	-0.391432		6	1.059987	-0.388910	0.344772
	1	0.829944	-0.536595	-0.469819		1	0.846802	-0.481217	-0.718914
	6	1.846991	1.054861	-1.482743		6	1.328647	-1.562829	1.066198
	1	2.027443	2.131119	-1.482893		1	1.326961	-1.523404	2.154576
	6	2.596170	0.243760	-2.372351		6	1.946547	-2.659340	0.417022
	1	2.236502	-0.754692	-2.628817		1	2.266619	-3.511912	1.010365
	1	3.201408	0.725104	-3.136790		1	1.701397	-2.881749	-0.623107
	6	-1.998123	1.207787	-0.096034		6	-1.762262	1.240359	-0.193667
	1	-2.966616	0.987901	0.367557		1	-2.817717	1.298699	0.096680
	6	-2.068516	2.658494	-0.598543		6	-1.424978	2.580654	-0.869066
	6	-2.976987	3.565532	-0.029147		6	-2.196272	3.724325	-0.605750
	6	-1.243251	3.113613	-1.639044		6	-0.360261	2.696130	-1.776444
	6	-3.047572	4.893049	-0.469413		6	-1.902357	4.952023	-1.211346
	1	-3.656694	3.228215	0.750943		1	-3.053392	3.652999	0.061336
	6	-1.305574	4.439111	-2.080643		6	-0.058298	3.920359	-2.382092
	1	-0.573198	2.408638	-2.121738		1	0.205781	1.805856	-2.037168
	6	-2.205866	5.338520	-1.494637		6	-0.825411	5.057662	-2.098491
	1	-3.766779	5.574282	-0.018621		1	-2.521301	5.821523	-0.998312
	1	-0.657489	4.769594	-2.890404		1	0.768701	3.985652	-3.086998
	1	-2.259939	6.368162	-1.842311		1	-0.596214	6.008644	-2.574892
	7	-1.630439	0.241240	-1.127388		7	-1.469156	0.082269	-1.034601
	16	-2.778398	-0.325463	-2.052792		16	-2.570464	-0.384125	-2.065522
	8	-2.145721	-0.867470	-3.294937		8	-1.897074	-1.214538	-3.112104
	8	-3.935858	0.600062	-2.281670		8	-3.460369	0.700661	-2.595224
	6	-3.545828	-1.796443	-1.287621		6	-3.735478	-1.552773	-1.280758
	6	-4.811462	-1.718007	-0.703009		6	-5.059049	-1.184283	-1.034781
	6	-5.385162	-2.857643	-0.121239		6	-5.942143	-2.100006	-0.443764
	6	-4.713554	-4.088260	-0.117359		6	-5.523797	-3.391719	-0.095568
	6	-3.437867	-4.146689	-0.710539		6	-4.183634	-3.743155	-0.348953
	6	-2.855897	-3.016940	-1.286664		6	-3.296387	-2.837357	-0.930617
	1	-6.375153	-2.783389	0.326196		1	-6.973139	-1.800583	-0.261642
	1	-5.354252	-0.777186	-0.716680		1	-5.402638	-0.193152	-1.316421
	1	-2.895494	-5.091351	-0.725868		1	-3.832048	-4.741017	-0.089381
	1	-1.874435	-3.085310	-1.749177		1	-2.267293	-3.130796	-1.122925
	6	-5.332326	-5.323180	0.500458		6	-6.474479	-4.386440	0.533929
	1	-4.717751	-5.705808	1.323776		1	-6.123257	-4.699863	1.524041
	1	-6.330661	-5.115819	0.895889		1	-7.476118	-3.963528	0.651936
	1	-5.422750	-6.131423	-0.234377		1	-6.561799	-5.292506	-0.076723
	28	3.239833	-0.070668	-0.504194		28	3.077121	-1.005908	0.197190
	15	5.263298	-0.665408	-1.103907		15	4.965680	-2.080924	-0.129325
	15	3.681817	-0.697696	1.580913		15	4.118478	0.924732	-0.115512
	6	5.561765	-1.804437	-2.514530		6	5.512806	-3.391524	1.037275
	1	6.626698	-2.043326	-2.601744		1	6.532370	-3.715784	0.804627
	1	4.997690	-2.729718	-2.369477		1	5.481794	-3.011746	2.062014
	1	5.225226	-1.335094	-3.442877		1	4.841594	-4.251518	0.965154
	6	6.342706	0.782966	-1.466420		6	5.126197	-2.870173	-1.785803
	1	5.974872	1.297842	-2.358169		1	4.391609	-3.674982	-1.877881
	1	6.317480	1.487004	-0.630268		1	4.930678	-2.137461	-2.573351
	1	7.376187	0.463528	-1.636291		1	6.130538	-3.284519	-1.921226
	6	6.062477	-1.496385	0.357012		6	6.319059	-0.805511	-0.068316
	1	5.804950	-2.560686	0.304879		1	6.563862	-0.647555	0.988761
	1	7.154320	-1.424875	0.294567		1	7.225736	-1.177356	-0.559222
	6	3.263609	0.267561	3.088165		6	3.534885	2.179708	-1.325473
	1	3.590237	1.305046	2.976400		1	3.373364	1.707748	-2.298412
	1	2.182073	0.247165	3.240144		1	2.590831	2.615799	-0.991270
	1	3.751913	-0.168658	3.965973		1	4.274269	2.980213	-1.433505
	6	3.053104	-2.386462	1.965749		6	4.389088	1.894014	1.428485
	1	3.332370	-3.084628	1.171824		1	4.857460	1.263178	2.189021
	1	3.465052	-2.742288	2.916194		1	5.030501	2.760214	1.235505
	1	1.963810	-2.348194	2.032153		1	3.427832	2.241082	1.817052

	6	5.534263	-0.878239	1.662767		6	5.832760	0.503172	-0.712404
	1	5.954046	0.123629	1.812738		1	5.773097	0.394134	-1.801874
	1	5.822918	-1.483750	2.529716		1	6.526183	1.327020	-0.508545
TS3_Ia_cis	6	-0.967894	2.188869	0.219378	TS3_Ila_cis	6	-2.174426	-1.911237	-0.497069
	6	-1.390689	3.410213	-0.617040		6	-3.289535	-2.630365	0.286147
	6	0.201068	1.470017	-0.483448		6	-0.875536	-2.717343	-0.381177
	1	1.064653	2.136306	-0.475977		1	-0.992164	-3.671663	-0.906858
	1	-0.063375	1.291731	-1.527172		1	-0.682497	-2.956059	0.666384
	8	-1.010002	3.639242	-1.750932		8	-3.099498	-3.566807	1.042625
	6	-0.472884	2.725073	1.584897		6	-2.616639	-1.845553	-1.979909
	8	0.672301	3.112895	1.761286		8	-2.296330	-2.686375	-2.806103
	8	-1.415011	2.757981	2.533492		8	-3.411088	-0.806104	-2.251758
	6	-1.011572	3.301371	3.813920		6	-3.846294	-0.678161	-3.625133
	1	-0.201535	2.704687	4.238608		1	-2.980750	-0.523441	-4.272045
	1	-0.685236	4.337093	3.697021		1	-4.392108	-1.572135	-3.934876
	1	-1.900098	3.245357	4.441753		1	-4.498414	0.194635	-3.640343
	8	-2.241410	4.202365	0.058473		8	-4.503046	-2.107743	0.044030
	6	-2.725559	5.370994	-0.648181		6	-5.607329	-2.697747	0.772466
	1	-3.276815	5.067747	-1.540771		1	-5.460066	-2.566803	1.846631
	1	-3.382580	5.880813	0.055608		1	-6.493051	-2.159134	0.437044
	1	-1.889077	6.013912	-0.930453		1	-5.690240	-3.760951	0.536966
	6	0.579087	0.169477	0.186367		6	0.299637	-2.009087	-0.989866
	1	0.890380	0.220026	1.225456		1	0.149018	-1.640362	-2.000074
	7	-1.431296	-0.045253	0.811514		7	-0.474732	-0.142687	-0.223791
	6	-2.144892	1.150753	0.393863		6	-1.874174	-0.460151	0.091043
	1	-2.797885	1.526372	1.185156		1	-2.585575	0.220342	-0.382342
	6	1.012576	-0.944954	-0.563140		6	1.622194	-2.392383	-0.671916
	6	1.669744	-2.078662	0.034598		1	1.747860	-3.099943	0.149200
	6	-2.995148	0.981125	-0.868584		6	2.715397	-2.169651	-1.607705
	6	-4.166309	1.741035	-1.024583		1	3.511966	-2.915775	-1.635060
	6	-2.649028	0.071021	-1.878993		1	2.453869	-1.788498	-2.596870
	6	-4.959267	1.614991	-2.171176		6	-2.110449	-0.379501	1.599221
	1	-4.468630	2.430599	-0.238224		6	-3.330909	0.112266	2.088074
	6	-3.436059	-0.055531	-3.028460		6	-1.134557	-0.786433	2.522379
	1	-1.773702	-0.559044	-1.751415		6	-3.579225	0.181629	3.464302
	6	-4.592627	0.719139	-3.182215		1	-4.093141	0.451254	1.389014
	1	-5.865488	2.209294	-2.270097		6	-1.380893	-0.726221	3.897415
	1	-3.152135	-0.767095	-3.801460		1	-0.173284	-1.134345	2.155483
	1	-5.207741	0.616231	-4.073779		6	-2.605993	-0.243325	4.375256
	16	-2.065433	-1.069711	1.856123		1	-4.529292	0.572758	3.822803
	8	-3.122958	-0.458939	2.711864		1	-0.614973	-1.049852	4.599797
	8	-0.949139	-1.745968	2.568460		1	-2.795090	-0.190564	5.445365
	6	-2.901743	-2.390577	0.933553		16	-0.204872	0.989531	-1.355373
	6	-2.135577	-3.270190	0.157260		8	-0.696187	0.624688	-2.718148
	6	-2.768004	-4.284040	-0.561509		8	1.239643	1.331150	-1.287650
	6	-4.167392	-4.440667	-0.525434		6	-1.149581	2.465150	-0.886241
	6	-4.912887	-3.546680	0.255397		6	-0.859783	3.124782	0.314780
	6	-4.289345	-2.524665	0.984823		6	-1.572541	4.273173	0.658150
	1	-2.166507	-4.966667	-1.160332		6	-2.582744	4.781970	-0.180257
	1	-1.055161	-3.160471	0.116736		6	-2.857992	4.101818	-1.375424
	1	-5.996042	-3.645720	0.301989		6	-2.148966	2.948101	-1.733245
	1	-4.877172	-1.841333	1.590820		1	-1.341478	4.782787	1.592350
	6	-4.835828	-5.550521	-1.306653		1	-0.086293	2.744414	0.973175
	1	-5.924701	-5.503367	-1.217998		1	-3.634871	4.473849	-2.040963
	1	-4.580627	-5.495392	-2.370942		1	-2.364134	2.429605	-2.662546
	1	-4.512008	-6.534988	-0.949144		6	-3.340454	6.032769	0.205149
	28	3.025005	-0.740247	-0.319802		1	-4.136108	6.256489	-0.510570
	15	4.831377	-1.819391	0.234642		1	-3.794815	5.929911	1.196812
	15	4.239954	0.998282	-0.999745		1	-2.671238	6.900033	0.246310
	6	5.975348	0.653661	-0.395706		28	2.949057	-0.874291	-0.222967
	6	6.277806	-0.855201	-0.446204		15	3.114607	0.039786	1.815492
	6	5.152738	-3.548390	-0.314234		15	4.795208	0.055024	-0.845940
	1	6.155364	-3.879651	-0.023482		6	5.271687	1.264927	0.495205
	1	4.412780	-4.214922	0.137925		6	4.868557	0.698541	1.869361
	1	5.055066	-3.614544	-1.401409		6	3.056186	-1.015637	3.333947
	6	5.161951	-1.899168	2.050292		1	3.388525	-0.467485	4.222486
	1	4.388923	-2.504074	2.532790		1	2.034014	-1.367555	3.500416
	1	6.142906	-2.341439	2.255097		1	3.696647	-1.891723	3.196169
	1	5.125195	-0.894847	2.481349		6	2.119730	1.508405	2.331471
	6	4.440773	1.083971	-2.837010		1	1.067897	1.220541	2.399615
	1	3.489563	1.374240	-3.292793		1	2.453548	1.902534	3.297729
	1	5.209234	1.811051	-3.121130		1	2.211318	2.288449	1.571029
	1	4.716276	0.101093	-3.229612		6	6.291315	-1.016380	-1.014774
	6	4.005832	2.773062	-0.550095		1	6.130625	-1.738701	-1.820392
	1	4.856871	3.377827	-0.881197		1	7.185163	-0.424166	-1.239403
	1	3.098898	3.160214	-1.023004		1	6.456456	-1.574185	-0.088565
	1	3.894231	2.872447	0.532956		6	4.847774	1.061524	-2.389499
	1	6.419147	-1.180885	-1.483788		1	5.790814	1.611416	-2.480891
	1	7.200968	-1.093013	0.095277		1	4.735671	0.400883	-3.254268
	1	6.029136	1.017508	0.637656		1	4.011464	1.765349	-2.387456
	1	6.710841	1.222920	-0.976376		1	5.519990	-0.142853	2.135798
	1	0.747469	-0.976991	-1.620419		1	4.980667	1.453470	2.656748
	1	1.733727	-2.997235	-0.548247		1	4.727530	2.195356	0.292572

	1	1.535205	-2.243870	1.104226		1	6.342111	1.500687	0.459072
<b>P1_cis</b>	6	-2.178335	-0.560700	0.427047	<b>TS2_IIb_cis</b>	6	-1.490336	1.464117	1.473428
	6	-1.433303	-0.783637	1.755168		6	-0.543110	2.647458	1.535441
	1	-1.317624	0.168461	2.275934		6	-1.033944	0.262469	0.623761
	1	-1.951624	-1.480480	2.415011		1	-1.642642	1.085882	2.485738
	6	-2.707931	-1.921558	-0.089470		1	-2.460274	1.801092	1.108734
	6	-3.421293	0.337955	0.508750		1	-0.281082	-0.329087	1.140675
	8	-4.309347	0.314384	-0.327752		6	-0.752627	3.784199	0.695815
	8	-3.416324	1.139895	1.578108		8	-0.150735	4.871661	0.655434
	6	-4.531290	2.061383	1.690921		8	-1.821127	3.587810	-0.196605
	1	-5.470117	1.507417	1.752639		6	-2.113416	4.698480	-1.051010
	1	-4.349682	2.618248	2.609204		1	-2.957816	4.384510	-1.669073
	1	-4.549156	2.730814	0.828839		1	-2.389510	5.586293	-0.473287
	8	-3.301047	-2.701575	0.635671		1	-1.259923	4.947845	-1.688920
	8	-2.467993	-2.141853	-1.386431		6	0.451002	2.578294	2.559531
	6	-2.977635	-3.386752	-1.930991		8	0.638525	1.585067	3.300644
	1	-2.682851	-3.381906	-2.979438		8	1.243533	3.698389	2.732169
	1	-2.532318	-4.234553	-1.406867		6	2.191254	3.623249	3.806304
	1	-4.064572	-3.418024	-1.833169		1	2.719194	4.579550	3.794696
	6	-0.062286	-1.328892	1.319273		1	1.691335	3.486505	4.770524
	1	-0.139082	-2.400925	1.102386		1	2.902292	2.804683	3.662706
	6	1.008119	-1.109026	2.355208		6	-0.772990	0.399989	-0.814804
	1	1.250186	-0.069108	2.579377		6	-0.495504	-0.728905	-1.665636
	6	1.613851	-2.098828	3.019188		1	-1.184048	1.294100	-1.276107
	1	1.394642	-3.144968	2.810687		1	-0.828940	-0.679645	-2.703124
	1	2.349775	-1.893415	3.792868		1	-0.541127	-1.738621	-1.251089
	6	-1.063701	0.057778	-0.496469		7	-2.344071	-0.912645	0.879691
	7	0.175587	-0.572778	0.047486		16	-2.052765	-2.065821	2.244160
	1	-1.232380	-0.272113	-1.518941		8	-3.174086	-3.013574	2.238275
	6	-1.001468	1.581518	-0.502551		8	-1.815072	-1.202465	3.399521
	6	-1.730334	2.280318	-1.478610		6	-0.554934	-2.934794	1.821223
	6	-0.251106	2.312024	0.430145		6	-0.626535	-4.032609	0.955204
	6	-1.726515	3.678806	-1.510382		6	0.651215	-2.541407	2.412398
	1	-2.302322	1.728768	-2.222854		6	0.541985	-4.741052	0.676907
	6	-0.243825	3.710557	0.399907		1	-1.572507	-4.339323	0.516276
	1	0.346098	1.791854	1.173764		6	1.805395	-3.269143	2.121520
	6	-0.984341	4.399750	-0.567702		1	0.686373	-1.694354	3.092039
	1	-2.294262	4.202963	-2.276221		6	1.770539	-4.376992	1.256835
	1	0.345800	4.261762	1.129508		1	0.493264	-5.595431	0.004913
	1	-0.974724	5.487307	-0.593357		1	2.745521	-2.972110	2.581983
	16	1.312627	-1.179966	-1.043256		6	3.019820	-5.181240	0.985630
	8	0.950699	-0.634079	-2.362786		1	3.145442	-5.957544	1.750394
	8	1.429861	-2.639579	-0.877350		1	2.972135	-5.682675	0.015035
	6	2.875957	-0.453503	-0.548771		1	3.914365	-4.552310	1.010174
	6	3.864463	-1.258906	0.017886		6	-3.351249	-1.250873	0.116543
	6	3.095643	0.910689	-0.780109		1	-3.809060	-2.215572	0.347792
	6	5.092202	-0.683360	0.362601		28	1.179305	0.148913	-1.324659
	1	3.680462	-2.315231	0.187512		15	2.833482	1.427053	-0.565759
	6	4.324012	1.465856	-0.427342		15	2.571518	-0.926299	-2.608455
	1	2.324480	1.528327	-1.232469		6	2.685696	-2.767416	-2.683302
	6	5.341410	0.680309	0.148468		1	3.505267	-3.095399	-3.332096
	1	5.863945	-1.310737	0.804000		1	2.844080	-3.166975	-1.677934
	1	4.497271	2.525633	-0.605985		1	1.744815	-3.173135	-3.066497
	6	6.670866	1.300645	0.512108		6	4.299867	-0.400996	-2.132574
	1	7.316624	0.589772	1.034089		1	4.610018	-1.041956	-1.298269
	1	7.200305	1.641512	-0.385168		1	5.009450	-0.571241	-2.951277
	1	6.534208	2.175430	1.157024		6	2.464818	-0.475277	-4.400040
						1	3.276772	-0.930844	-4.977617
						1	1.506104	-0.815592	-4.802386
						1	2.511706	0.611488	-4.513611
						6	3.496611	0.923242	1.087082
						1	3.733314	-0.145238	1.076066
						1	4.403797	1.483981	1.339534
						1	2.738027	1.092199	1.855389
						6	2.867672	3.268301	-0.480931
						1	2.131493	3.628867	0.241602
						1	3.863098	3.629423	-0.197435
						1	2.610489	3.677205	-1.463064
						6	4.288192	1.075199	-1.696266
						1	5.233252	1.350969	-1.212704
						1	4.174571	1.726276	-2.571867
						6	-3.984124	-0.557030	-0.988300
						6	-4.818859	-1.364250	-1.801330
						6	-3.878669	0.823638	-1.271540
						6	-5.483778	-0.822304	-2.897420
						1	-4.929399	-2.422558	-1.572349
						6	-4.566448	1.361947	-2.357211
						1	-3.298812	1.480211	-0.637658
						6	-5.356419	0.544708	-3.177638
						1	-6.108274	-1.455509	-3.522599
						1	-4.494973	2.426641	-2.565123
						1	-5.885633	0.977070	-4.024142

TS2_Ia_trans	6	-1.705321	-0.889277	1.088389	TS2_IIIa_cis	6	0.128363	1.744269	-0.604838
	6	-2.593487	-0.198752	2.060088		6	1.107327	1.876981	0.498525
	6	-0.349904	-0.166772	0.995941		6	-0.466047	3.090261	-1.119290
	1	0.184152	-0.355956	1.934054		1	-0.862619	3.622867	-0.252438
	1	-0.536849	0.907804	0.980862		1	-1.324050	2.803943	-1.737757
	8	-2.258283	0.794289	2.711794		8	1.990659	1.058829	0.830685
	6	-1.569593	-2.352746	1.215388		6	0.570596	0.811504	-1.665037
	8	-0.513977	-2.966016	1.012461		8	1.304748	-0.190626	-1.525597
	8	-2.696347	-3.024048	1.572240		8	0.050554	1.090215	-2.858721
	6	-2.561044	-4.453726	1.683039		6	0.338543	0.168316	-3.938097
	1	-1.815629	-4.716398	2.438522		1	-0.053999	-0.817500	-3.687766
	1	-3.546096	-4.813850	1.983654		1	-0.177212	0.580806	-4.804812
	1	-2.273843	-4.892069	0.724229		1	1.415099	0.125639	-4.117814
	8	-3.847933	-0.706808	2.154590		8	0.965987	3.004433	1.197187
	6	-4.741177	-0.008074	3.043153		6	1.848474	3.201881	2.325073
	1	-4.889612	1.018403	2.699994		1	2.890463	3.188971	1.998887
	1	-5.679857	-0.562699	3.003828		1	1.583464	4.180542	2.723646
	1	-4.348870	-0.000736	4.063606		1	1.680070	2.426675	3.074894
	6	0.543550	-0.516801	-0.177086		6	0.490821	3.965291	-1.868561
	1	0.612444	-1.572450	-0.435622		6	1.048082	5.138524	-1.349195
	6	0.922500	0.432958	-1.132908		1	0.719308	5.419832	-0.344634
	1	0.693688	1.481648	-0.948474		6	1.961115	5.990939	-1.960204
	6	1.883943	0.103314	-2.123965		1	2.305931	6.894061	-1.464824
	1	1.884899	-0.895229	-2.565068		1	2.347688	5.791706	-2.958403
	1	2.264822	0.890588	-2.770478		6	-1.376787	0.757364	0.130600
	6	-2.797338	-0.461221	-0.759732		1	-0.894074	-0.226580	0.145628
	7	-2.338014	0.685345	-1.320044		6	-1.574873	1.294573	1.522270
	16	-3.148363	2.070387	-1.018247		6	-0.927652	0.673016	2.602601
	8	-4.148799	1.967375	0.078993		6	-2.439175	2.371741	1.781918
	8	-3.667686	2.591265	-2.312982		6	-1.128436	1.120457	3.913123
	6	-1.882599	3.249138	-0.502541		1	-0.272946	-0.176390	2.417482
	6	-1.120179	3.909027	-1.473554		6	-2.633532	2.826379	3.088519
	6	-0.143268	4.824105	-1.073953		1	-2.970659	2.835689	0.956367
	6	0.080182	5.102440	0.286057		6	-1.978125	2.204404	4.160145
	6	-0.700876	4.428462	1.238936		1	-0.627695	0.619036	4.738847
	6	-1.678263	3.504156	0.855811		1	-3.304897	3.662321	3.274745
	1	0.449083	5.332763	-1.832802		1	-2.137258	2.554850	5.177765
	1	-1.293803	3.716571	-2.528673		7	-2.471297	0.914213	-0.694503
	1	-0.544916	4.624157	2.298533		16	-2.876410	-0.292275	-1.687287
	1	-2.261468	2.975292	1.603130		8	-1.788513	-1.285215	-1.921934
	6	1.113515	6.123293	0.707358		8	-3.522474	0.284883	-2.893843
	1	1.480063	5.928357	1.719443		6	-4.186553	-1.197740	-0.822225
	1	1.970526	6.129877	0.026894		6	-5.497500	-0.705321	-0.834006
	1	0.685940	7.133593	0.702235		6	-6.495697	-1.388168	-0.136542
	28	2.654280	-0.284195	-0.317215		6	-6.210466	-2.564798	0.580159
	15	4.747290	-0.233855	-0.966061		6	-4.889559	-3.038768	0.576739
	15	3.289181	-0.994771	1.684732		6	-3.878497	-2.364931	-0.118574
	6	5.257199	-0.975159	-2.568110		1	-7.513357	-1.000851	-0.151281
	1	6.346781	-0.958714	-2.674499		1	-5.735679	0.197960	-1.389372
	1	4.907238	-2.009358	-2.625789		1	-4.642529	-3.949161	1.120206
	1	4.810976	-0.411509	-3.391866		1	-2.862638	-2.750274	-0.121481
	6	5.487400	1.452763	-1.004625		6	-7.307464	-3.307868	1.310073
	1	5.000618	2.044414	-1.784906		1	-6.897536	-4.023306	2.028525
	1	5.328688	1.955096	-0.046601		1	-7.964147	-2.618681	1.850983
	1	6.561648	1.401007	-1.210194		1	-7.935638	-3.867758	0.606458
	6	5.728636	-1.159778	0.315178		28	2.480992	-0.705834	0.015321
	1	5.650418	-2.225288	0.068391		15	3.649624	-2.162833	-1.185263
	1	6.790212	-0.891671	0.263913		15	3.300341	-1.628872	1.866219
	6	2.798948	-0.163150	3.251675		6	2.773493	-3.164836	-2.453573
	1	3.011206	0.907379	3.185507		1	2.390230	-2.501952	-3.233233
	1	1.729768	-0.293828	3.433831		1	3.444135	-3.902887	-2.905951
	1	3.352895	-0.587428	4.095580		1	1.926191	-3.680807	-1.994259
	6	2.908086	-2.770848	1.985739		6	4.371066	-3.400340	0.000019
	1	3.358118	-3.382703	1.198383		1	3.612511	-4.174870	0.163258
	1	3.298487	-3.094306	2.956373		1	5.248603	-3.893225	-0.433373
	1	1.824883	-2.917075	1.951699		6	5.107471	-1.485950	-2.094016
	6	5.150522	-0.886244	1.713853		1	5.668024	-2.285869	-2.590557
	1	5.407451	0.127968	2.041956		1	4.764272	-0.769072	-2.845205
	1	5.564800	-1.578852	2.455338		1	5.769105	-0.961496	-1.399255
	1	-3.733564	-0.438125	-0.202706		6	4.721161	-2.701678	1.326408
	6	-2.616685	-1.704800	-1.566514		1	5.590423	-2.046172	1.196692
	6	-3.511482	-2.775022	-1.386774		1	4.977479	-3.430466	2.103776
	6	-1.638964	-1.807244	-2.572532		6	2.217946	-2.778045	2.826340
	6	-3.420866	-3.924803	-2.177943		1	2.775498	-3.251085	3.642382
	1	-4.288447	-2.702397	-0.630161		1	1.374840	-2.222812	3.247012
	6	-1.542568	-2.958549	-3.357506		1	1.818959	-3.554157	2.167558
	1	-0.970414	-0.970603	-2.744338		6	4.010819	-0.527213	3.156457
	6	-2.431161	-4.025065	-3.162780		1	4.511041	-1.107265	3.939039
	1	-4.127515	-4.738839	-2.029233		1	4.729859	0.157606	2.699243
	1	-0.780236	-3.021475	-4.131686		1	3.210563	0.065540	3.607275
	1	-2.359722	-4.918348	-3.779873		1	0.790393	3.638792	-2.864556
INT2_Ia_trans	6	-0.936086	-0.336346	1.079425	TS2_IIIb_cis	6	-1.172146	-1.322098	-2.883395
	6	-1.919414	0.722651	1.656349		6	0.121345	-1.100638	-2.111029

	6	0.205763	0.482088	0.406270		6	-2.455278	-1.459256	-2.071173
	1	0.598410	1.134661	1.184824		1	-1.285452	-0.511453	-3.601866
	1	-0.260920	1.129246	-0.338258		1	-1.079384	-2.248550	-3.474177
	8	-1.561984	1.834880	2.016877		1	-2.385657	-2.195135	-1.276697
	6	-0.372092	-1.070690	2.314308		6	-3.703285	-1.490593	-2.786882
	8	0.814876	-1.204580	2.561592		6	-4.833665	-2.081392	-2.305235
	8	-1.343910	-1.530081	3.123886		1	-3.767614	-0.906246	-3.708491
	6	-0.906156	-2.220717	4.319582		1	-5.789202	-1.982385	-2.816868
	1	-0.298755	-1.556112	4.937722		1	-4.812793	-2.703164	-1.414342
	1	-1.821053	-2.501504	4.840422		7	-2.781807	-0.086205	-0.635843
	1	-0.326408	-3.107157	4.052815		16	-2.843888	1.450849	-1.229529
	8	-3.179090	0.289963	1.770206		8	-4.190232	1.910397	-1.672088
	6	-4.118789	1.210843	2.373935		8	-1.761769	1.629391	-2.226468
	1	-4.208239	2.110567	1.763304		6	-2.413272	2.462041	0.210232
	1	-5.066224	0.674618	2.402103		6	-3.326964	3.388752	0.713687
	1	-3.790608	1.472898	3.382532		6	-1.139552	2.340404	0.778758
	6	1.339506	-0.275497	-0.248973		6	-2.963275	4.196746	1.797749
	1	1.724075	-1.149554	0.275948		1	-4.311971	3.474158	0.264166
	6	1.621342	-0.138520	-1.613873		6	-0.791552	3.150469	1.861209
	1	1.096413	0.633162	-2.178097		1	-0.431677	1.615378	0.384776
	6	2.791653	-0.717829	-2.166659		6	-1.694070	4.093274	2.387100
	1	3.133849	-1.689570	-1.806547		1	-3.682081	4.914764	2.188961
	1	3.054573	-0.488846	-3.196646		1	0.197097	3.048177	2.306438
	6	-1.721152	-1.318982	0.103133		6	-1.292675	4.986605	3.540012
	7	-1.986077	-0.577590	-1.125679		1	-0.689155	5.831978	3.186987
	16	-3.407248	-0.725509	-1.790415		1	-2.167597	5.398170	4.051281
	8	-4.194786	-1.930802	-1.369027		1	-0.690540	4.443907	4.275713
	8	-3.268908	-0.555940	-3.272542		6	-3.873390	-0.394643	0.147969
	6	-4.456898	0.693959	-1.319777		6	-3.748425	-1.281243	1.264053
	6	-3.926012	1.990100	-1.370595		6	-4.907919	-1.728982	1.971082
	6	-4.734007	3.086295	-1.064747		6	-2.491818	-1.755272	1.751396
	6	-6.083352	2.918557	-0.698434		6	-4.814640	-2.569126	3.077157
	6	-6.593909	1.613996	-0.647144		1	-5.888953	-1.401226	1.627636
	6	-5.791179	0.506335	-0.955363		6	-2.411103	-2.599597	2.858881
	1	-4.309969	4.088735	-1.108996		1	-1.585307	-1.432367	1.246255
	1	-2.883057	2.140077	-1.639195		6	-3.564518	-3.021734	3.541232
	1	-7.632865	1.453417	-0.363238		1	-5.725441	-2.882734	3.586670
	1	-6.199678	-0.499277	-0.909784		1	-1.432083	-2.934592	3.202138
	6	-6.942993	4.115788	-0.355910		1	-3.494472	-3.680776	4.403647
	1	-6.602359	4.595656	0.569484		1	-4.873335	-0.114667	-0.184245
	1	-6.901078	4.874618	-1.145152		6	0.547735	-2.024400	-1.138307
	1	-7.989601	3.830474	-0.216913		8	-0.191363	-3.152759	-1.058673
	28	3.302728	0.462889	-0.629121		6	0.179785	-4.140452	-0.079002
	15	5.367578	0.760106	-1.305140		1	-0.557623	-4.936405	-0.185657
	15	3.768573	1.534839	1.259635		1	1.181586	-4.528695	-0.280384
	6	6.352050	-0.644527	-1.962671		1	0.134436	-3.725255	0.930230
	1	7.386874	-0.338814	-2.148179		8	1.557572	-1.947055	-0.345308
	1	6.345286	-1.469491	-1.245248		6	0.987525	-0.038823	-2.446248
	1	5.911538	-0.995296	-2.899773		8	0.702415	0.614254	-3.588953
	6	5.550564	2.072434	-2.583930		6	1.462993	1.794198	-3.903637
	1	5.050424	1.756346	-3.503497		1	1.053468	2.152234	-4.848646
	1	5.081625	2.998684	-2.241100		1	1.329075	2.554301	-3.129875
	1	6.607905	2.261663	-2.796286		1	2.524075	1.560082	-4.019282
	6	6.337165	1.376640	0.157637		8	2.037327	0.353096	-1.813632
	1	6.649709	0.495301	0.730160		28	2.735233	-0.463984	-0.252206
	1	7.248201	1.891952	-0.167573		15	4.202595	1.158959	-0.093295
	6	2.761590	2.937618	1.895802		6	5.048028	1.055461	1.552261
	1	2.603295	3.671550	1.101028		1	6.017190	1.565605	1.526191
	1	1.787315	2.583908	2.240975		1	4.418874	1.587643	2.275017
	1	3.274512	3.421119	2.733758		6	5.199915	-0.423805	1.946943
	6	3.954072	0.427254	2.719202		1	5.462761	-0.532154	3.004929
	1	4.684452	-0.356948	2.500112		1	5.994790	-0.901604	1.362807
	1	4.288451	0.992954	3.595149		6	5.509026	1.011473	-1.373101
	1	2.994020	-0.049657	2.932200		1	6.227693	1.832125	-1.281020
	6	5.453440	2.294134	1.018811		1	6.033583	0.057920	-1.270087
	1	5.302546	3.259263	0.520792		1	5.042856	1.045454	-2.361127
	1	5.923243	2.500847	1.987182		6	3.549662	2.859282	-0.260142
	1	-2.637587	-1.579521	0.639554		1	2.801394	3.048874	0.513444
	6	-1.010906	-2.662954	-0.150942		1	4.360774	3.588491	-0.167471
	6	-1.134207	-3.713065	0.776280		1	3.077138	2.963189	-1.238944
	6	-0.308381	-2.916000	-1.338208		15	3.623452	-1.319207	1.562984
	6	-0.537941	-4.958853	0.547504		6	4.021095	-3.103243	1.491872
	1	-1.728224	-3.570096	1.675693		1	4.455692	-3.433944	2.440532
	6	0.290970	-4.157775	-1.573500		1	3.104093	-3.662697	1.296566
	1	-0.257862	-2.134975	-2.088532		1	4.728848	-3.294218	0.681269
	6	0.187767	-5.185189	-0.627509		6	2.530715	-1.120669	3.023260
	1	-0.655466	-5.755700	1.279505		1	1.581534	-1.626537	2.828851
	1	0.830935	-4.327312	-2.503413		1	2.999622	-1.555811	3.911622
	1	0.648136	-6.153670	-0.812423		1	2.328156	-0.061738	3.203622
TS3_Ia_trans	6	-1.479728	-1.262562	0.763220	INT2_IIIb_cis	6	-1.036092	-1.369788	2.089400
	6	-2.045942	-1.500090	2.175428		6	0.347685	-1.111121	1.518179
	6	-0.142986	-0.508941	0.980512		6	-2.077675	-0.253717	1.807329
	1	0.550424	-1.182915	1.486931		1	-1.417187	-2.319204	1.717507



	1	-0.321143	0.333963	1.657544		1	-0.967488	-1.456030	3.180239
	8	-1.462526	-2.188679	2.997572		1	-1.626464	0.701474	2.074187
	6	-1.209440	-2.645933	0.140762		6	1.148847	-0.087623	2.063102
	8	-0.249188	-2.911888	-0.561965		8	2.315253	0.301454	1.697918
	8	-2.168940	-3.529914	0.452370		8	0.607172	0.547259	3.127311
	6	-2.043587	-4.848090	-0.132594		6	1.364312	1.607696	3.741315
	1	-1.099498	-5.306947	0.168945		1	0.726631	1.985131	4.541062
	1	-2.888946	-5.415846	0.254508		1	2.299307	1.225083	4.158474
	1	-2.093876	-4.778728	-1.221146		1	1.575646	2.402897	3.022473
	8	-3.179794	-0.837072	2.440268		6	0.875850	-1.902825	0.478502
	6	-3.709941	-0.991352	3.781432		8	1.989952	-1.751380	-0.142658
	1	-3.934454	-2.041697	3.977361		8	0.119334	-2.955094	0.103888
	1	-2.989057	-0.624081	4.514754		6	0.605118	-3.791919	-0.962668
	1	-4.619312	-0.391861	3.800592		1	-0.148064	-4.572066	-1.074569
	6	0.484276	0.016061	-0.288204		1	0.691910	-3.223535	-1.891913
	1	0.656620	-0.700739	-1.080934		1	1.570482	-4.234203	-0.704814
	6	1.321356	1.156304	-0.237903		6	-3.305860	-0.431644	2.670035
	1	1.200947	1.826978	0.612897		6	-3.767053	0.497641	3.517042
	6	2.216051	1.532703	-1.300950		1	-3.820126	-1.389085	2.594259
	6	-2.379190	-0.364195	-0.185249		1	-4.653507	0.323508	4.124378
	7	-1.435093	0.292268	-1.098620		1	-3.274688	1.462449	3.632029
	16	-1.897807	1.687136	-1.770109		28	3.252629	-0.373140	0.191315
	8	-3.283483	1.618100	-2.308713		15	4.458877	-1.108450	-1.487889
	8	-0.838546	2.087953	-2.725072		6	5.286729	-2.692952	-1.075909
	6	-1.965535	2.987102	-0.503720		1	5.880343	-3.045547	-1.925478
	6	-0.851742	3.805329	-0.283356		1	5.938280	-2.564483	-0.207590
	6	-0.904179	4.793311	0.702791		1	4.525386	-3.437729	-0.830343
	6	-2.055007	4.979848	1.488533		6	5.797925	0.116936	-1.858059
	6	-3.165025	4.155901	1.242896		6	3.567320	-1.418983	-3.054522
	6	-3.130145	3.169165	0.251674		15	4.791093	1.160724	0.500248
	1	-0.037925	5.434936	0.857206		6	6.269942	0.756281	-0.541023
	1	0.037472	3.679717	-0.892578		1	6.626460	-0.359813	-2.393292
	1	-4.076744	4.292914	1.821928		1	5.370330	0.873563	-2.525936
	1	-4.013176	2.568872	0.050802		1	3.093584	-0.497856	-3.403126
	6	-2.088675	6.031202	2.575473		1	4.261074	-1.783006	-3.819010
	1	-3.113948	6.327244	2.815597		1	2.792365	-2.168229	-2.880768
	1	-1.631085	5.652503	3.497850		6	5.381898	1.338779	2.222500
	1	-1.532894	6.927371	2.282398		6	4.225562	2.830984	-0.001034
	6	-3.487245	-1.142617	-0.902487		1	6.874938	1.651247	-0.723115
	6	-4.777738	-1.205881	-0.358844		1	6.888614	0.055251	0.030923
	6	-3.235214	-1.808820	-2.111729		1	6.148748	2.117653	2.282436
	6	-5.792828	-1.926846	-1.000022		1	4.538301	1.609023	2.860697
	1	-4.996485	-0.684156	0.569541		1	5.798268	0.390926	2.572807
	6	-4.243016	-2.535458	-2.751772		1	3.965900	2.841076	-1.062167
	1	-2.248976	-1.737391	-2.562455		1	3.330504	3.090882	0.569122
	6	-5.528443	-2.599774	-2.197891		1	5.010903	3.569507	0.190113
	1	-6.790304	-1.957632	-0.565746		7	-2.370127	-0.035232	0.336024
	1	-4.029140	-3.044309	-3.689900		16	-3.306689	-1.157235	-0.500309
	1	-6.315762	-3.158757	-2.699543		8	-3.364384	-2.428991	0.263536
	1	-2.859660	0.354838	0.487967		8	-2.820602	-1.232546	-1.895829
	15	3.772477	-1.330943	1.239733		6	-5.002937	-0.533682	-0.617044
	6	3.425869	-1.309151	3.054013		6	-5.967002	-0.982928	0.287830
	1	3.967025	-2.107022	3.573924		6	-5.346092	0.373971	-1.627049
	1	3.723894	-0.343721	3.472966		6	-7.282088	-0.514460	0.183823
	1	2.354186	-1.440400	3.230391		1	-5.702591	-1.702796	1.056418
	6	3.337083	-3.065710	0.767959		6	-6.660913	0.836475	-1.715192
	1	2.251169	-3.193528	0.785340		1	-4.595053	0.702353	-2.337495
	1	3.677590	-3.266408	-0.252041		6	-7.648461	0.404884	-0.811025
	1	3.798310	-3.790767	1.447217		1	-8.030716	-0.877304	0.885835
	6	5.641299	-1.330488	1.177657		1	-6.923730	1.540384	-2.503339
	1	5.982127	-0.535801	1.852452		6	-9.062811	0.932577	-0.905330
	1	6.046074	-2.274687	1.560904		1	-9.399679	0.987681	-1.945589
	6	6.131964	-1.058930	-0.256978		1	-9.764231	0.302135	-0.351555
	1	7.208696	-0.853040	-0.275160		1	-9.129080	1.945691	-0.490020
	1	5.961106	-1.937916	-0.890161		6	-2.533845	1.306884	-0.138428
	15	5.162003	0.350271	-1.008185		6	-1.502198	2.005007	-0.800978
	6	5.509855	0.216401	-2.813150		6	-1.644586	3.407894	-1.107334
	1	5.054565	-0.695290	-3.209858		6	-0.257914	1.418100	-1.225141
	1	5.068149	1.072967	-3.330394		6	-0.656251	4.129897	-1.767164
	1	6.586615	0.195830	-3.012710		1	-2.563412	3.913906	-0.808208
	6	6.119107	1.853464	-0.520646		6	0.720315	2.160312	-1.882843
	1	5.660675	2.736990	-0.974013		1	-0.092195	0.363005	-1.029706
	1	6.091757	1.976934	0.565635		6	0.553204	3.527595	-2.173052
	1	7.162359	1.783555	-0.847172		1	-0.824854	5.188230	-1.971114
	28	3.145435	0.243590	-0.199816		1	1.641676	1.658173	-2.184823
	1	2.028518	1.134290	-2.298773		1	1.323813	4.096770	-2.687926
	1	2.597561	2.553543	-1.306167		1	-3.397004	1.851860	0.244620
<b>P1_trans</b>	6	-1.438680	1.154685	0.143022	<b>TS3_IIIb_cis</b>	6	-0.888415	2.927303	0.351801
	6	-1.177431	0.986626	1.657112		6	0.331890	2.049493	0.174735
	6	0.103561	0.118768	1.767888		6	-2.130646	2.431885	-0.427952
	6	-1.018446	-0.235328	-0.442736		1	-1.126285	2.963920	1.415861
	1	-2.019280	0.457314	2.104364		1	-0.705848	3.959582	0.029862
	1	-1.069373	1.942277	2.170484		1	-2.068187	2.774768	-1.460158

	1	-0.024073	-0.628468	2.557991		6	0.934569	1.903526	-1.127510
	6	-2.879230	1.523674	-0.244289		8	1.981393	1.272647	-1.402348
	6	-0.557435	2.265559	-0.473109		8	0.230521	2.502760	-2.130357
	8	-3.167559	1.955715	-1.348446		6	0.773289	2.375113	-3.458124
	8	0.220302	2.121545	-1.396967		1	0.078903	2.910991	-4.106240
	8	-3.762399	1.317501	0.736907		1	1.768106	2.825404	-3.514800
	8	-0.778944	3.435156	0.148690		1	0.833389	1.324999	-3.753496
	6	-5.149683	1.597391	0.416176		6	1.221320	1.814665	1.292495
	1	-5.477648	0.957490	-0.405127		8	2.166680	0.994834	1.318918
	1	-5.704009	1.373282	1.326574		8	0.936572	2.550221	2.399843
	1	-5.265333	2.647366	0.140089		6	1.708194	2.249627	3.580250
	6	-0.059835	4.584834	-0.365433		1	1.313145	2.905838	4.356758
	1	-0.322632	4.752631	-1.411982		1	1.579818	1.202186	3.863247
	1	-0.379656	5.423058	0.252240		1	2.768055	2.456667	3.412744
	1	1.016723	4.426466	-0.274027		6	-3.394867	2.978630	0.189848
	6	1.346765	0.924756	2.060897		6	-4.228045	3.820794	-0.431200
	1	1.656977	1.641972	1.300475		1	-3.594687	2.686601	1.221531
	6	2.040017	0.818500	3.198842		1	-5.105553	4.223944	0.069769
	1	1.764113	0.101473	3.970889		1	-4.060056	4.131955	-1.460989
	1	2.907987	1.443720	3.393960		28	3.018266	-0.027306	-0.239486
	7	0.133937	-0.549397	0.434756		15	3.002202	-1.927678	-1.289020
	16	1.193732	-1.784765	0.083369		6	2.136038	-3.409472	-0.579385
	8	1.341129	-2.643458	1.270860		1	2.347144	-4.316032	-1.158895
	8	0.720165	-2.370959	-1.181971		1	2.455696	-3.565062	0.455025
	6	2.794177	-1.029206	-0.225143		1	1.056345	-3.233387	-0.576351
	6	3.886050	-1.378109	0.570616		6	4.786185	-2.488899	-1.339354
	6	2.934748	-0.139147	-1.297817		6	2.491887	-2.021127	-3.063700
	6	5.138797	-0.824600	0.284882		15	5.087525	-0.326806	0.411593
	1	3.759890	-2.064992	1.401924		6	5.499405	-2.096034	-0.033268
	6	4.189583	0.406006	-1.563283		1	4.856577	-3.567852	-1.522823
	1	2.079719	0.136400	-1.908793		1	5.254851	-1.984249	-2.192913
	6	5.311536	0.071313	-0.780680		1	3.000195	-1.237246	-3.632115
	1	5.990312	-1.096154	0.905659		1	2.731040	-2.996077	-3.502979
	1	4.299620	1.102304	-2.392845		1	1.413630	-1.852630	-3.140827
	1	-0.667755	-0.092849	-1.465378		6	5.578542	-0.226767	2.192454
	6	-2.137102	-1.274309	-0.444502		6	6.459680	0.626121	-0.399420
	6	-2.925899	-1.412441	-1.597570		1	6.583258	-2.243138	-0.112032
	6	-2.417941	-2.085379	0.665113		1	5.147229	-2.723961	0.794163
	6	-3.982045	-2.328536	-1.637382		1	6.602298	-0.583188	2.352346
	1	-2.709851	-0.804941	-2.474571		1	5.507986	0.811515	2.529920
	6	-3.471424	-3.004844	0.627179		1	4.891712	-0.826605	2.796178
	1	-1.805305	-2.022984	1.560963		1	6.382405	0.531108	-1.486444
	6	-4.260561	-3.127452	-0.522298		1	6.363719	1.686517	-0.146771
	1	-4.579514	-2.424431	-2.541527		1	7.446386	0.271828	-0.078515
	1	-3.671739	-3.629575	1.495076		7	-2.092654	0.923573	-0.443286
	1	-5.077384	-3.845338	-0.552312		16	-2.846033	0.132958	-1.734221
	6	6.667157	0.660310	-1.097367		8	-1.896599	-0.819701	-2.341541
	1	7.398934	0.425054	-0.320105		8	-3.462831	1.159518	-2.592760
	1	7.048923	0.268973	-2.047721		6	-4.158786	-0.843051	-0.991608
	1	6.611491	1.749548	-1.196793		6	-3.935101	-2.187484	-0.686262
						6	-5.388223	-0.233844	-0.712505
						6	-4.960981	-2.928418	-0.090077
						1	-2.980411	-2.651221	-0.916275
						6	-6.400460	-0.990198	-0.122133
						1	-5.551023	0.812049	-0.957068
						6	-6.204742	-2.346507	0.199750
						1	-4.786662	-3.975875	0.148462
						1	-7.358511	-0.519062	0.090993
						6	-7.320452	-3.156085	0.820657
						1	-6.950386	-4.097855	1.234802
						1	-7.816113	-2.599704	1.622758
						1	-8.086346	-3.398483	0.074065
						6	-1.061715	0.204528	0.230532
						6	-1.240487	-0.245581	1.590318
						6	-2.392621	0.049969	2.366864
						6	-0.213094	-1.009179	2.210735
						6	-2.510840	-0.401779	3.679845
						1	-3.210811	0.601221	1.913973
						6	-0.342296	-1.461707	3.522337
						1	0.689833	-1.230195	1.645938
						6	-1.488667	-1.159899	4.274025
						1	-3.412278	-0.172184	4.245581
						1	0.458439	-2.049873	3.967610
						1	-1.584617	-1.508172	5.299956
						1	-0.413864	-0.395557	-0.403222
TS2_lb_cis	6	-0.176123	1.517415	-0.506402					
	6	-0.816539	2.383763	0.568714					
	6	0.074900	0.038320	-0.187671					
	1	-0.744289	1.588718	-1.431130					
	1	0.827610	1.891082	-0.738385					
	1	0.334370	-0.118840	0.855998					
	6	-0.110620	2.627567	1.791269					
	8	-0.426414	3.312730	2.780146					

	8	1.109990	1.941500	1.817696		
	6	1.875741	2.082390	3.019246		
	1	1.308940	1.751943	3.894581		
	1	2.754157	1.448038	2.885805		
	1	2.185911	3.120507	3.175032		
	6	-1.990373	3.155658	0.293618		
	8	-2.592751	3.960678	1.025184		
	8	-2.480762	2.954138	-1.007571		
	6	-3.547047	3.829255	-1.399552		
	1	-3.800958	3.544633	-2.423218		
	1	-4.421150	3.718384	-0.750616		
	1	-3.227172	4.875705	-1.375302		
	6	0.932480	-0.744651	-1.093435		
	6	1.542936	-1.974066	-0.669279		
	1	0.787842	-0.568907	-2.158714		
	1	1.714879	-2.760126	-1.405278		
	1	1.317357	-2.356299	0.329327		
	7	-1.436410	-0.828538	-0.169619		
	16	-2.162988	-1.241204	-1.774015		
	8	-1.880436	-2.652443	-2.057069		
	8	-1.713552	-0.195790	-2.690803		
	6	-3.908130	-1.063011	-1.436985		
	6	-4.721854	-2.198605	-1.462477		
	6	-4.427097	0.214072	-1.189421		
	6	-6.092014	-2.043932	-1.231553		
	1	-4.299936	-3.179509	-1.662721		
	6	-5.794816	0.340195	-0.956889		
	1	-3.774756	1.083127	-1.174257		
	6	-6.647637	-0.780871	-0.975066		
	1	-6.732598	-2.922961	-1.254066		
	1	-6.209903	1.326789	-0.758982		
	6	-8.128036	-0.614036	-0.725350		
	1	-8.309237	-0.139055	0.245062		
	1	-8.581067	0.029009	-1.488290		
	1	-8.649271	-1.574444	-0.737768		
	6	-1.744642	-1.709252	0.753764		
	1	-2.271108	-2.612505	0.434433		
	6	-1.474693	-1.638723	2.176017		
	6	-1.272148	-0.424160	2.867964		
	6	-1.503156	-2.855696	2.897790		
	6	-1.075907	-0.437279	4.246879		
	1	-1.322828	0.516687	2.329602		
	6	-1.279398	-2.861432	4.272197		
	1	-1.688501	-3.790612	2.371923		
	6	-1.064752	-1.651789	4.948138		
	1	-0.943875	0.500494	4.780789		
	1	-1.286186	-3.800617	4.819788		
	1	-0.906953	-1.654012	6.024538		
	28	2.890034	-0.577857	-0.686691		
	15	4.776937	-1.602292	-0.292425		
	15	3.971158	1.310928	-1.137347		
	6	5.119810	-2.499230	1.284324		
	6	5.295415	-2.838663	-1.566059		
	6	6.127733	-0.310085	-0.365241		
	6	3.616207	2.277488	-2.672037		
	6	4.112733	2.645574	0.134689		
	6	5.751568	0.785306	-1.381422		
	1	6.156361	-2.850721	1.329974		
	1	4.928980	-1.838031	2.134334		
	1	4.449048	-3.359791	1.363278		
	1	4.594710	-3.678645	-1.560549		
	1	5.268048	-2.382460	-2.559751		
	1	6.306248	-3.214196	-1.372812		
	1	6.214245	0.119385	0.640374		
	1	7.097779	-0.760298	-0.607329		
	1	3.592865	1.604062	-3.533639		
	1	2.634179	2.751904	-2.584942		
	1	4.369577	3.053835	-2.844795		
	1	4.539821	2.235520	1.054298		
	1	4.749148	3.464542	-0.218190		
	1	3.117653	3.029940	0.371757		
	1	5.834905	0.397718	-2.404184		
	1	6.429634	1.643821	-1.305743		

**Table S6.** The optimized Cartesian coordinates (Å) for stationary points on paths **Ia\_L2**, **Ila\_L2**, **Ia\_L3**, **Ila\_L3**, **Ia\_L4** and **Ila\_L4** which involved in the [3+2] cycloaddition processes of **INT1**, located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	Cartesian coordinates				Species	Cartesian coordinates			
<b>COM1_I_L2</b>	6	-3.787692	1.344898	0.090724	<b>TS2_Ia_trans_L3</b>	6	2.015431	-1.992573	0.010110
	6	-2.492275	-0.537263	1.412076		6	0.541369	-1.699993	-0.352573
	6	-3.446027	-0.101513	0.298912		6	0.021609	-0.291849	-0.178374
	1	-2.709153	-1.499300	1.866209		6	3.321973	-0.448840	-0.886266
	1	-2.179214	0.244436	2.096164		7	3.753017	0.442084	0.042449
	8	-4.237334	1.799784	-0.949634		1	2.522856	-0.150545	-1.567321
	6	-4.463408	-1.124242	-0.094112		6	2.440571	-3.249314	-0.646258
	8	-4.223279	-2.322286	-0.175037		1	-0.078016	-2.375927	0.250182
	8	-5.688951	-0.604023	-0.296262		1	0.390181	-2.004562	-1.389284
	6	-6.729215	-1.548722	-0.644164		8	1.923948	-3.688221	-1.680403
	1	-6.861919	-2.279683	0.156593		6	2.305127	-1.789459	1.445958
	1	-7.630560	-0.949360	-0.769802		8	1.479197	-1.332971	2.244817
	1	-6.478480	-2.064202	-1.573887		8	3.566704	-2.073663	1.836308
	28	0.880017	-0.226441	-0.240069		6	3.864553	-1.833935	3.223957
	8	-3.497767	2.109901	1.164526		1	3.226015	-2.442370	3.870526
	6	-3.717166	3.531894	1.007390		1	4.909658	-2.120527	3.349151
	1	-3.408209	3.977722	1.952516		1	3.728027	-0.778552	3.472188
	1	-3.114928	3.920541	0.183099		8	3.459324	-3.915184	-0.047174
	1	-4.773583	3.732071	0.815186		6	3.915304	-5.100173	-0.727353
	6	-0.947147	0.497570	-0.419421		1	4.286343	-4.853356	-1.724517
	6	-0.287674	0.420477	-1.661864		1	4.724607	-5.492283	-0.109619
	6	-1.947928	-0.513671	0.024597		1	3.110847	-5.836362	-0.809526
	1	-1.901389	-1.475315	-0.479391		1	0.182632	0.180075	0.790333
	1	-0.973029	1.455968	0.105274		6	-0.273968	0.535733	-1.268227
	1	-0.516713	-0.381236	-2.366844		1	-0.244169	0.110734	-2.273133
	1	0.149311	1.315558	-2.106991		6	-0.949160	1.763266	-1.063726
	15	2.849944	-1.097202	0.259243		1	-0.734757	2.350032	-0.170115
	6	4.320364	-0.008048	0.011337		1	-1.277037	2.339508	-1.924816
	6	5.633618	-0.434958	0.281393		16	3.065252	1.914100	0.123100
	6	4.117195	1.299666	-0.460980		8	2.250124	2.106924	1.354403
	6	6.716538	0.427227	0.083800		8	2.414322	2.334716	-1.148937
	1	5.825921	-1.441381	0.649124		6	4.527931	2.954112	0.339011
	6	5.201008	2.164285	-0.659364		6	5.222620	3.407839	-0.787554
	1	3.104692	1.638851	-0.673169		6	6.355170	4.207801	-0.620456
	6	6.502457	1.729485	-0.387347		6	6.812154	4.565154	0.660883
	1	7.726407	0.083337	0.297583		6	6.097455	4.097159	1.774897
	1	5.027288	3.173915	-1.025790		6	4.959063	3.297696	1.622374
	1	7.346164	2.399120	-0.540673		1	6.891227	4.559563	-1.500518
	6	3.307533	-2.649955	-0.641267		1	4.878386	3.144160	-1.784203
	1	4.270169	-3.052769	-0.310347		1	6.429712	4.360466	2.777609
	1	2.530227	-3.399956	-0.466784		1	4.408032	2.951394	2.492274
	1	3.355684	-2.448005	-1.714681		6	8.025537	5.452862	0.827731
	6	3.006914	-1.631132	2.028503		1	7.763492	6.506084	0.668670
	1	2.229356	-2.368864	2.248952		1	8.449697	5.367115	1.832229
	1	3.985572	-2.076114	2.234385		1	8.806935	5.200862	0.103696
	1	2.862828	-0.769970	2.686534		28	-2.043856	0.280964	-0.277741
						15	-3.933449	1.394768	-0.481011
						15	-3.121203	-1.360653	0.786960
						6	-5.206132	0.472818	0.524731
						1	-5.127273	0.801901	1.565459
						1	-6.217603	0.709504	0.180206
						6	-4.916065	-1.030441	0.405940
						1	-5.073963	-1.373021	-0.623045
						1	-5.585504	-1.621516	1.038146
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						6	4.182799	-1.718376	-2.859629
						6	5.613346	-1.523584	-0.917659
						6	5.194092	-2.406473	-3.538920
						1	3.236544	-1.521869	-3.359211
						6	6.619082	-2.218852	-1.590835
						1	5.770366	-1.169400	0.096161
						6	6.415774	-2.662154	-2.906157
						1	5.028314	-2.738641	-4.561766
						1	7.568019	-2.412579	-1.094282
						1	7.204161	-3.196602	-3.432324
						6	-2.982341	-1.310998	2.618201
						6	-4.095260	-1.418673	3.471370
						6	-1.701922	-1.158604	3.181661
						6	-3.931051	-1.373097	4.860035
						1	-5.098457	-1.543112	3.073346
						6	-1.541409	-1.125250	4.570382
						1	-0.819287	-1.083430	2.553151
						6	-2.654200	-1.227027	5.413234
						1	-4.802416	-1.454524	5.506085
						1	-0.544260	-1.013511	4.990210

					1	-2.528048	-1.192773	6.493270	
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					6	-2.775330	-5.493008	0.758883	
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					6	-2.554308	-4.702202	-1.520628	
					1	-2.640596	-2.567664	-1.794759	
					6	-2.594532	-5.759478	-0.602877	
					1	-2.801368	-6.310029	1.476704	
					1	-2.404325	-4.901874	-2.579338	
					1	-2.478879	-6.784918	-0.947178	
					6	-4.625136	1.372407	-2.179952	
					6	-3.877854	0.808181	-3.226275	
					6	-5.914085	1.871356	-2.447749	
					6	-4.405815	0.746194	-4.521376	
					1	-2.883639	0.412832	-3.032801	
					6	-6.438431	1.810432	-3.740813	
					1	-6.510620	2.317090	-1.654085	
					6	-5.685147	1.247532	-4.780116	
					1	-3.817217	0.305867	-5.323075	
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					1	-6.096182	1.200639	-5.786242	
					6	-3.990549	3.136259	0.092096	
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					6	-4.020855	4.208108	-0.816136	
					6	-3.859193	4.728700	1.928334	
					1	-3.839236	2.599968	2.194870	
					6	-3.980926	5.527834	-0.352833	
					1	-4.078101	4.023485	-1.885542	
					6	-3.904451	5.792267	1.018668	
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TS1_I_L2	6	-4.074220	1.401116	0.050147	INT2_Ia_trans_L3	6	-2.403071	-1.230983	0.324917
	6	-2.594029	-0.119511	1.537212		6	-3.438734	-0.661683	1.334771
	6	-3.687179	0.063616	0.495070		6	-1.143308	-0.315666	0.466158
	1	-2.731804	-1.012810	2.142722		1	-0.826809	-0.390783	1.508142
	1	-2.383621	0.767679	2.127878		1	-1.476063	0.711794	0.311567
	8	-4.911210	1.697518	-0.802043		8	-3.115772	-0.147473	2.395395
	6	-4.403064	-1.156194	0.123849		6	-2.059752	-2.641650	0.842442
	8	-4.079194	-2.277854	0.535283		8	-0.932844	-3.096257	0.933835
	8	-5.461038	-0.989820	-0.711409		8	-3.160342	-3.329404	1.207142
	6	-6.163344	-2.198592	-1.066814		6	-2.939122	-4.669034	1.710478
	1	-6.573800	-2.686122	-0.178761		1	-2.306033	-4.637836	2.599904
	1	-6.968630	-1.878287	-1.729055		1	-3.929348	-5.051454	1.956424
	1	-5.499869	-2.895598	-1.585260		1	-2.466394	-5.286929	0.943838
	28	0.846604	-0.202516	0.211363		8	-4.714344	-0.817432	0.962248
	8	-3.365657	2.375510	0.705441		6	-5.713682	-0.351378	1.899372
	6	-3.634405	3.728388	0.291329		1	-5.614645	0.724949	2.049462
	1	-2.968376	4.352554	0.888441		1	-6.671208	-0.584091	1.435512
	1	-3.423800	3.858531	-0.773252		1	-5.606562	-0.874022	2.852747
	1	-4.676946	3.992865	0.486464		6	0.030442	-0.586423	-0.444023
	6	-0.879535	0.690959	-0.221347		1	0.384371	-1.614841	-0.499945
	6	-0.069546	0.415308	-1.363174		6	0.387059	0.293520	-1.472663
	6	-1.774849	-0.286521	0.324814		1	-0.126635	1.252283	-1.538314
	1	-1.785950	-1.276319	-0.124364		6	1.596373	0.104539	-2.184093
	1	-0.898971	1.692207	0.206174		1	1.955199	-0.905826	-2.387539
	1	-0.304193	-0.435000	-2.007683		1	1.918035	0.859040	-2.897110
	1	0.443832	1.236426	-1.864157		6	-3.038278	-1.283024	-1.138866
	15	2.836148	-1.163299	0.176407		7	-2.981890	0.066762	-1.689295
	6	4.263146	-0.020899	-0.059376		16	-4.258106	0.623909	-2.425261
	6	5.584345	-0.485360	-0.195028		8	-5.221059	-0.411263	-2.927555
	6	4.022865	1.363016	-0.096316		8	-3.821032	1.620921	-3.455077
	6	6.639637	0.415867	-0.364399		6	-5.245389	1.641414	-1.272081
	1	5.804423	-1.551152	-0.169269		6	-4.595875	2.529798	-0.404685
	6	5.079596	2.266314	-0.264711		6	-5.344345	3.350391	0.440991
	1	3.004689	1.734510	0.006080		6	-6.751460	3.303424	0.445326
	6	6.389317	1.794137	-0.399624		6	-7.382577	2.403701	-0.425335
	1	7.656301	0.042805	-0.468467		6	-6.639890	1.577274	-1.280285
	1	4.877961	3.335061	-0.291417		1	-4.827658	4.036987	1.110521
	1	7.211778	2.493953	-0.531804		1	-3.509487	2.571221	-0.383981
	6	3.031276	-2.416610	-1.168966		1	-8.469702	2.342322	-0.440489
	1	4.019632	-2.886451	-1.153578		1	-7.142332	0.882043	-1.946966
	1	2.268632	-3.190819	-1.042600		6	-7.549073	4.189324	1.377432
	1	2.878426	-1.936045	-2.138788		1	-7.391173	3.905450	2.424851
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	1	4.285206	-2.603008	1.576978		28	2.002539	0.228138	-0.222067
	1	3.313697	-1.477064	2.556096		15	4.067955	0.925852	-0.557905
						15	2.391278	0.140443	1.975161
						6	4.946227	0.781156	1.079916
						1	5.294837	-0.249868	1.195758

					1	5.825536	1.432144	1.107125	
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					1	4.393601	0.974128	3.182538	
					1	-4.064485	-1.626282	-0.985944	
					6	-2.412330	-2.337159	-2.072330	
					6	-2.825666	-3.678844	-1.988815	
					6	-1.504159	-1.993128	-3.083617	
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					6	-0.987012	-2.961339	-3.951272	
					1	-1.227728	-0.952000	-3.202721	
					6	-1.381058	-4.300004	-3.835668	
					1	-2.655842	-5.682854	-2.769472	
					1	-0.282954	-2.667241	-4.727736	
					1	-0.984013	-5.052564	-4.513957	
					6	5.106550	0.044531	-1.785914	
					6	5.577802	-1.249568	-1.497503	
					6	5.354143	0.594699	-3.055449	
					6	6.306219	-1.965868	-2.451578	
					1	5.380071	-1.713344	-0.533408	
					6	6.079944	-0.127235	-4.008926	
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					1	6.670678	-2.962213	-2.211475	
					1	6.268331	0.313496	-4.985441	
					1	7.127272	-1.965149	-4.451276	
					6	4.180116	2.711529	-0.960214	
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					6	5.490406	4.732307	-1.296815	
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					6	4.313711	5.465027	-1.504453	
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					1	2.155870	5.387793	-1.598280	
					1	4.366872	6.530768	-1.716110	
					6	2.840082	-1.520750	2.612194	
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					6	3.905045	-2.961038	4.260129	
					1	3.836674	-0.822511	4.415585	
					6	2.837252	-3.936891	2.317067	
					1	1.933454	-2.552160	0.939947	
					6	3.547812	-4.090244	3.511480	
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					6	1.218344	0.888998	3.172017	
					6	0.721388	0.203612	4.291933	
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					6	-0.161277	0.839905	5.172974	
					1	1.015338	-0.824008	4.485539	
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					1	1.148807	2.750978	2.055306	
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					1	-0.537479	0.298974	6.038551	
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INT1_I_L2	6	3.004383	-0.402503	0.307040	TS3_Ia_trans_L3	6	2.937842	1.110653	0.064912
	6	4.434426	-0.409079	0.530241		6	1.525053	0.701218	0.569537
	6	2.350088	-1.781443	0.335463		6	0.759813	-0.217680	-0.343381
	1	1.915751	-2.000411	1.321917		6	3.710872	-0.211167	-0.348883
	1	3.146723	-2.517334	0.184383		7	2.704967	-1.049040	-1.007038
	8	5.093908	-1.442870	0.749739		6	3.552184	1.889428	1.243702
	6	2.183226	0.729403	0.167614		1	0.947251	1.617233	0.723560
	8	0.908546	0.731600	-0.033163		1	1.634898	0.220250	1.548190
	8	2.751315	1.963093	0.274370		8	3.108461	2.963253	1.616737
	6	1.888028	3.099169	0.096003		6	2.824370	2.070228	-1.134102
	1	1.107024	3.128821	0.860282		8	1.922592	2.048611	-1.953708
	1	2.540954	3.967967	0.197583		8	3.861145	2.920865	-1.195774
	1	1.424158	3.094585	-0.893735		6	3.887992	3.818330	-2.330491
	8	5.077581	0.801280	0.475577		1	2.986126	4.433943	-2.346361
	6	6.497627	0.753794	0.697315		1	4.773921	4.436251	-2.187646
	1	6.996836	0.144513	-0.061586		1	3.964796	3.246364	-3.257570
	1	6.835122	1.789640	0.627655		8	4.546311	1.244880	1.871460
	1	6.730576	0.348423	1.686042		6	5.102355	1.908475	3.034488
	6	1.290732	-1.968377	-0.716436		1	5.519102	2.876946	2.750812
	1	1.594462	-1.769064	-1.749100		1	4.329684	2.046825	3.793656
	6	0.076983	-2.635409	-0.491341		1	5.884867	1.243028	3.397389
	1	-0.138391	-3.033271	0.501362		1	0.647486	0.103553	-1.371211
	6	-0.998882	-2.378224	-1.385027		6	-0.139104	-1.179005	0.148974

	1	-0.805182	-2.283432	-2.455330		1	-0.036421	-1.495681	1.186691
	1	-1.993423	-2.735807	-1.127547		6	-1.100138	-1.830470	-0.701811
	28	-0.265375	-0.671373	-0.652305		16	2.971362	-2.634585	-1.068787
	15	-2.105496	0.566902	-0.925101		8	4.323180	-2.979056	-1.592762
	6	-3.421273	0.252253	0.321789		8	1.824333	-3.243867	-1.786159
	6	-4.707516	0.811429	0.209826		6	2.952984	-3.332826	0.609619
	6	-3.123696	-0.550677	1.435796		6	1.769053	-3.865083	1.132554
	6	-5.674201	0.567703	1.189890		6	1.757866	-4.389581	2.427517
	1	-4.968383	1.441571	-0.638320		6	2.915213	-4.387360	3.225536
	6	-4.090556	-0.791734	2.419294		6	4.095117	-3.858435	2.678242
	1	-2.132761	-0.989199	1.537629		6	4.122616	-3.339574	1.379188
	6	-5.367644	-0.234393	2.296978		1	0.835533	-4.816074	2.819155
	1	-6.665565	1.004349	1.089673		1	0.873097	-3.887524	0.520475
	1	-3.845138	-1.414798	3.276617		1	5.011402	-3.863224	3.266299
	1	-6.121218	-0.422677	3.058719		1	5.055382	-2.971931	0.960519
	6	-2.941755	0.364357	-2.557087		6	2.884485	-4.929031	4.637557
	1	-2.221835	0.584656	-3.351199		1	2.530177	-4.164962	5.340637
	1	-3.280549	-0.668058	-2.673577		1	2.209023	-5.785970	4.722631
	1	-3.798699	1.035709	-2.666133		1	3.878835	-5.242671	4.968500
	6	-1.839923	2.389760	-0.835012		6	4.960312	0.048456	-1.200545
	1	-1.391008	2.641156	0.128200		6	6.225019	0.134468	-0.601992
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	1	-2.780272	2.937074	-0.952054		6	7.370518	0.375568	-1.371416
						1	6.321261	0.005557	0.473013
						6	6.006443	0.443969	-3.364809
						1	3.900006	0.090946	-3.075653
						6	7.265672	0.537173	-2.756963
						1	8.343845	0.431306	-0.887621
						1	5.914178	0.553865	-4.443800
						1	8.153853	0.722430	-3.357668
						1	4.042788	-0.643658	0.602973
						15	-2.565231	1.715589	0.895958
						6	-4.410053	1.811882	0.565730
						1	-4.909891	1.214510	1.336256
						1	-4.775775	2.840228	0.650290
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						1	-5.800103	1.175757	-0.996191
						1	-4.305423	1.902378	-1.600381
						15	-3.897401	-0.425574	-0.985095
						28	-1.919943	-0.183912	-0.101080
						1	-0.920452	-1.821641	-1.776830
						1	-1.560710	-2.751174	-0.345346
						6	-4.074600	-0.927143	-2.744096
						6	-4.125008	-2.296021	-3.067930
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						6	-4.093622	-0.402467	-5.122859
						1	-3.994465	1.079789	-3.577473
						6	-4.154081	-1.764839	-5.435010
						1	-4.212166	-3.772368	-4.633441
						1	-4.080564	0.340839	-5.917113
						1	-4.188754	-2.087576	-6.473256
						6	-5.031846	-1.542688	-0.062676
						6	-4.561547	-2.201794	1.084372
						6	-6.372019	-1.719356	-0.453758
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						1	-3.526056	-2.074205	1.393428
						6	-7.222350	-2.540589	0.290661
						1	-6.754622	-1.224080	-1.344214
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						1	-5.038027	-3.530399	2.717064
						1	-8.256162	-2.671712	-0.021782
						1	-7.408502	-3.834651	2.012716
						6	-1.933500	3.309114	0.214293
						6	-2.160954	4.552157	0.832745
						6	-1.230227	3.271047	-1.001172
						6	-1.702747	5.731559	0.239505
						1	-2.688919	4.609130	1.781291
						6	-0.776121	4.453584	-1.597450
						1	-1.026929	2.315700	-1.480337
						6	-1.012461	5.685221	-0.979430
						1	-1.882413	6.686307	0.729315
						1	-0.229570	4.406428	-2.536314
						1	-0.655774	6.604727	-1.438785
						6	-2.438096	1.863297	2.725943
						6	-3.383550	2.548280	3.511172
						6	-1.349243	1.244019	3.364210
						6	-3.232720	2.622350	4.899910
						1	-4.246345	3.025512	3.052721
						6	-1.194450	1.324231	4.752035
						1	-0.625631	0.686124	2.775769
						6	-2.136318	2.014759	5.523300

					1	-3.973068	3.154541	5.493398	
					1	-0.345119	0.840345	5.229498	
					1	-2.021007	2.073615	6.603442	
TS2_Ia_cis_L2	6	0.695694	-2.296060	0.250949	TS2_Ila_cis_L3	6	1.640905	1.473870	-1.600988
	6	1.439082	-3.513149	0.706825		6	1.577517	2.939074	-1.762620
	6	0.097059	-2.553027	-1.148452		6	0.615442	0.927250	-0.605968
	1	-0.633163	-3.369430	-1.083691		1	0.627612	1.546869	0.292595
	1	0.909994	-2.931374	-1.777085		1	0.935069	-0.077881	-0.320439
	8	1.511735	-4.545496	0.043588		8	0.869144	3.670313	-1.064933
	6	-0.218184	-1.667743	1.208677		6	1.856279	0.564279	-2.742558
	8	-1.167447	-0.903116	0.906901		8	1.429204	-0.595300	-2.751794
	8	0.015099	-1.900369	2.503342		8	2.593353	1.049339	-3.771306
	6	-0.806600	-1.186017	3.457120		6	2.860459	0.113049	-4.836924
	1	-1.857520	-1.458482	3.334915		1	1.927924	-0.236362	-5.288504
	1	-0.443024	-1.506735	4.433659		1	3.446858	0.671761	-5.568233
	1	-0.671758	-0.112043	3.325581		1	3.430414	-0.735617	-4.455065
	8	2.092172	-3.377190	1.882329		8	2.409213	3.468280	-2.700733
	6	2.807695	-4.543563	2.341880		6	2.356426	4.903177	-2.836108
	1	3.587319	-4.823483	1.629336		1	2.628994	5.393384	-1.898488
	1	3.247894	-4.254085	3.296502		1	3.078682	5.145718	-3.616986
	1	2.122535	-5.383980	2.477917		1	1.355355	5.227360	-3.133231
	6	-0.528992	-1.364965	-1.825308		6	-0.787190	0.903800	-1.181029
	1	0.127255	-0.519032	-2.024654		1	-0.929458	0.276477	-2.063947
	6	-1.781300	-1.391094	-2.451188		6	-1.691929	1.957686	-0.981422
	1	-2.386998	-2.298279	-2.429642		1	-1.452526	2.713289	-0.235249
	6	-2.395573	-0.129883	-2.709754		6	-3.019755	1.850515	-1.455685
	1	-1.786086	0.701605	-3.067615		1	-3.747284	2.608501	-1.179642
	1	-3.436266	-0.105064	-3.024833		1	-3.218411	1.333593	-2.396470
	6	2.148148	-0.822965	0.116954		6	3.523183	1.152663	-0.570915
	1	2.373081	-0.855561	1.185512		1	4.098408	1.370874	-1.473405
	6	3.193810	-1.485944	-0.729253		6	3.514331	2.258568	0.428627
	6	4.264433	-2.155201	-0.111234		6	4.125747	3.483522	0.109006
	6	3.176680	-1.398208	-2.133343		6	2.981735	2.085564	1.719376
	6	5.284011	-2.734573	-0.874272		6	4.198958	4.514030	1.051837
	1	4.311183	-2.204655	0.973581		1	4.561368	3.623874	-0.877830
	6	4.188986	-1.984934	-2.896561		6	3.044100	3.118740	2.657006
	1	2.380174	-0.848257	-2.625758		1	2.536089	1.132008	1.986181
	6	5.246502	-2.658847	-2.270911		6	3.653058	4.338050	2.328546
	1	6.109582	-3.239049	-0.376519		1	4.686462	5.451189	0.790849
	1	4.158663	-1.909289	-3.981623		1	2.626542	2.971091	3.651017
	1	6.037472	-3.110040	-2.866229		1	3.708896	5.138267	3.063638
	7	1.637628	0.331905	-0.402116		7	3.535634	-0.106576	-0.068895
	16	1.157999	1.511347	0.605812		16	4.384580	-1.246055	-0.870327
	8	1.173607	1.123198	2.043490		8	4.770075	-0.864595	-2.255375
	8	-0.101589	2.104700	0.084682		8	3.705513	-2.553035	-0.694368
	6	2.418697	2.792565	0.406533		6	5.929438	-1.363991	0.066295
	6	2.355653	3.667269	-0.684540		6	5.992360	-2.171344	1.207421
	6	3.348016	4.636428	-0.845635		6	7.181091	-2.237447	1.938290
	6	4.411421	4.750297	0.067860		6	8.317923	-1.507808	1.548565
	6	4.447835	3.865614	1.157366		6	8.229144	-0.704244	0.400152
	6	3.461725	2.888307	1.331529		6	7.045979	-0.628291	-0.341917
	1	3.290499	5.318905	-1.692131		1	7.224295	-2.868161	2.824814
	1	1.533024	3.600275	-1.391348		1	5.124094	-2.747304	1.515851
	1	5.252684	3.941617	1.886414		1	9.095764	-0.130670	0.075751
	1	3.496253	2.217763	2.185811		1	6.996418	-0.010636	-1.234610
	6	5.494513	5.786583	-0.134075		6	9.609944	-1.613190	2.328034
	1	6.034888	5.988309	0.795146		1	9.422069	-1.733180	3.399448
	1	6.227812	5.443847	-0.874535		1	10.192269	-2.483445	2.000500
	1	5.080641	6.730813	-0.501874		1	10.236523	-0.727781	2.186744
	28	-1.907146	-0.284855	-0.791557		28	-2.609186	0.283793	-0.258621
	15	-3.377262	1.197819	-0.001537		15	-4.681750	0.065010	0.460718
	6	-5.137467	0.664090	-0.067145		15	-2.013132	-1.548147	0.879406
	6	-6.196320	1.538079	0.240546		6	-4.523903	-0.976007	1.996579
	6	-5.433676	-0.666520	-0.407787		1	-4.108522	-0.346220	2.790090
	6	-7.520193	1.090008	0.204480		1	-5.503733	-1.328269	2.335544
	1	-5.999985	2.573615	0.511982		6	-3.590342	-2.155317	1.691269
	6	-6.758934	-1.117079	-0.440349		1	-4.075080	-2.840147	0.987536
	1	-4.625030	-1.354617	-0.647046		1	-3.365561	-2.715771	2.604072
	6	-7.804476	-0.239072	-0.135897		6	-0.889331	-1.223705	2.299000
	1	-8.329060	1.777493	0.442662		6	-0.126523	-2.235650	2.906120
	1	-6.971984	-2.150609	-0.704938		6	-0.841835	0.079953	2.822670
	1	-8.835178	-0.586261	-0.163102		6	0.659841	-1.948115	4.026110
	6	-3.336980	2.824611	-0.864444		1	-0.133215	-3.246696	2.506982
	1	-2.313312	3.204542	-0.813018		6	-0.062142	0.362795	3.948978
	1	-3.615150	2.694950	-1.913486		1	-1.406715	0.880110	2.346749
	1	-4.013362	3.550275	-0.402637		6	0.689359	-0.651087	4.553127
	6	-3.116095	1.660334	1.762159		1	1.250990	-2.737618	4.485093
	1	-3.226403	0.772642	2.389171		1	-0.035802	1.375048	4.346416
	1	-2.096493	2.039521	1.864694		1	1.302165	-0.430627	5.424520
	1	-3.832170	2.422035	2.086318		6	-1.370140	-3.031065	0.008635
				6	-1.720090	-4.332643	0.416461		
				6	-0.522718	-2.868817	-1.101408		
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					1	-2.368168	-4.494601	1.273515	
					6	-0.039259	-3.987184	-1.788994	
					1	-0.221914	-1.882371	-1.439638	
					6	-0.396185	-5.277020	-1.381943	
					1	-1.516084	-6.445726	0.052627	
					1	0.617641	-3.843834	-2.643675	
					1	-0.021824	-6.144483	-1.921328	
					6	-5.589610	1.573483	0.975397	
					6	-5.122752	2.307158	2.082247	
					6	-6.676436	2.070374	0.236217	
					6	-5.750307	3.498144	2.457491	
					1	-4.265614	1.961872	2.656917	
					6	-7.299170	3.265890	0.612433	
					1	-7.044559	1.531565	-0.632778	
					6	-6.841787	3.980407	1.724567	
					1	-5.382567	4.050540	3.319388	
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					1	-7.328403	4.908463	2.016381	
					6	-5.805659	-0.890676	-0.625044	
					6	-7.075168	-1.308736	-0.183154	
					6	-5.373919	-1.249489	-1.912458	
					6	-7.896263	-2.067990	-1.019910	
					1	-7.431510	-1.039765	0.809362	
					6	-6.198905	-2.009655	-2.749685	
					1	-4.392116	-0.939206	-2.263803	
					6	-7.459789	-2.418969	-2.304718	
					1	-8.876132	-2.385165	-0.669951	
					1	-5.853833	-2.281697	-3.744636	
					1	-8.101533	-3.010341	-2.954237	
INT2_Ia_cis_L2	6	-1.164406	1.257555	1.037608	INT2_Ila_cis_L3	6	-2.456018	-0.753028	-1.383341
	6	-1.754514	1.578863	2.442736		6	-2.951450	-1.949599	-2.229484
	6	-0.333915	2.502135	0.616702		6	-0.960573	-1.043218	-1.008424
	1	0.268709	2.821338	1.469663		1	-0.485007	-1.454062	-1.900863
	1	-1.050301	3.308923	0.423619		1	-0.962897	-1.836695	-0.258859
	8	-1.200444	2.318304	3.239431		8	-2.386856	-3.021954	-2.339690
	6	-0.260586	0.026435	1.232843		6	-2.495585	0.434213	-2.369178
	8	0.905615	-0.122737	0.839659		8	-1.786974	0.468223	-3.366906
	8	-0.845020	-0.909976	1.961882		8	-3.380570	1.384816	-2.064458
	6	-0.091771	-2.121040	2.241224		6	-3.486860	2.485314	-2.998829
	1	0.815289	-1.871705	2.795101		1	-3.796984	2.115165	-3.979010
	1	-0.760201	-2.733193	2.843944		1	-4.239965	3.146467	-2.574281
	1	0.153424	-2.626229	1.307408		1	-2.528232	3.000617	-3.086525
	8	-2.901720	0.944117	2.709262		8	-4.109136	-1.652259	-2.852446
	6	-3.454917	1.157331	4.032225		6	-4.687320	-2.701700	-3.664814
	1	-3.673400	2.216319	4.184008		1	-4.921221	-3.569984	-3.045043
	1	-4.369730	0.566327	4.058281		1	-5.596710	-2.273419	-4.085454
	1	-2.750378	0.812397	4.791942		1	-3.994343	-2.989309	-4.458615
	6	0.549215	2.313447	-0.585652		6	-0.160501	0.140930	-0.509516
	1	0.085719	1.888648	-1.475604		1	-0.417879	0.488450	0.489251
	6	1.826104	2.877131	-0.689513		6	0.484624	1.032997	-1.378992
	1	2.234837	3.464743	0.133850		1	0.560934	0.779796	-2.435541
	6	2.704829	2.303565	-1.653614		6	1.316169	2.050063	-0.852609
	1	2.315695	2.010654	-2.630400		1	1.902829	2.659578	-1.534512
	1	3.756329	2.581216	-1.639608		1	1.056716	2.526914	0.093795
	6	-2.276832	0.813710	-0.017933		6	-3.427229	-0.571945	-0.138081
	1	-2.924180	0.122374	0.533700		1	-4.332826	-0.113919	-0.553013
	6	-3.152023	1.997978	-0.459827		6	-3.867761	-1.926933	0.440939
	6	-4.313206	2.337585	0.254004		6	-5.100230	-2.482775	0.060247
	6	-2.827438	2.761031	-1.593373		6	-3.081933	-2.630751	1.366855
	6	-5.115206	3.416354	-0.138872		6	-5.530535	-3.713700	0.569001
	1	-4.608646	1.743432	1.114076		1	-5.742243	-1.938914	-0.630114
	6	-3.621151	3.842401	-1.987398		6	-3.503527	-3.864465	1.873860
	1	-1.962951	2.484001	-2.189183		1	-2.151727	-2.194332	1.718335
	6	-4.768550	4.179989	-1.258577		6	-4.728050	-4.415314	1.475328
	1	-6.014821	3.652976	0.426031		1	-6.494464	-4.117767	0.265207
	1	-3.349035	4.417352	-2.870572		1	-2.878930	-4.392925	2.590153
	1	-5.390262	5.017855	-1.567327		1	-5.057620	-5.371483	1.876881
	7	-1.548538	0.148910	-1.100924		7	-2.756836	0.285394	0.837069
	16	-2.341720	-0.923895	-1.961473		16	-3.657222	1.161144	1.793264
	8	-1.503235	-1.255444	-3.150376		8	-2.784532	1.672414	2.895959
	8	-3.766768	-0.578317	-2.261196		8	-4.935833	0.524738	2.250380
	6	-2.457741	-2.484025	-1.025157		6	-4.214878	2.676255	0.936814
	6	-3.568374	-2.744306	-0.215755		6	-5.553725	2.844767	0.579755
	6	-3.625885	-3.929122	0.528597		6	-5.961917	4.018343	-0.071456
	6	-2.592965	-4.877053	0.469256		6	-5.048980	5.039957	-0.367388
	6	-1.488583	-4.600648	-0.357034		6	-3.701974	4.849303	-0.002197
	6	-1.414344	-3.416403	-1.094104		6	-3.285066	3.681831	0.637206
	1	-4.495200	-4.119232	1.156184		1	-7.009869	4.137884	-0.342129
	1	-4.393045	-2.037723	-0.179635		1	-6.276351	2.070817	0.821734
	1	-0.675926	-5.322507	-0.427510		1	-2.971189	5.626937	-0.221176
	1	-0.558228	-3.221711	-1.734874		1	-2.241025	3.555214	0.912885
	6	-2.675482	-6.175201	1.241911		6	-5.487406	6.316871	-1.050760
	1	-1.701310	-6.458440	1.653452		1	-4.899730	6.506505	-1.956234

	1	-3.387993	-6.104905	2.068887		1	-6.542455	6.276731	-1.335971
	1	-3.003719	-6.996673	0.593090		1	-5.351362	7.183601	-0.393131
	28	2.003506	0.897005	-0.439508		28	1.948879	0.255779	-0.194001
	15	3.645227	-0.584721	-0.760559		15	4.003755	0.954884	0.214605
	6	5.247150	-0.125573	0.012259		15	2.421619	-1.726400	0.699710
	6	6.435693	-0.824328	-0.267690		6	4.933668	-0.515122	0.889300
	6	5.280655	0.936146	0.932099		1	5.337174	-1.034825	0.013439
	6	7.632508	-0.463115	0.357865		1	5.787932	-0.200112	1.497680
	1	6.442016	-1.653955	-0.971922		6	3.992538	-1.442879	1.669753
	6	6.478568	1.294449	1.561338		1	3.688816	-0.994688	2.621363
	1	4.369320	1.486025	1.159915		1	4.485249	-2.391310	1.906401
	6	7.656305	0.596711	1.273687		6	4.142554	2.291569	1.466623
	1	8.545410	-1.009230	0.130446		6	3.873455	3.617355	1.076940
	1	6.489865	2.118233	2.271650		6	4.447903	2.026938	2.811902
	1	8.588923	0.876140	1.759099		6	3.918586	4.653808	2.011990
	6	4.030896	-0.905284	-2.533744		1	3.646067	3.851198	0.039459
	1	3.114217	-1.217808	-3.042787		6	4.487787	3.067157	3.747881
	1	4.394700	0.011196	-3.004777		1	4.664884	1.017954	3.150970
	1	4.782722	-1.690883	-2.652839		6	4.223063	4.381636	3.351815
	6	3.296848	-2.272640	-0.103770		1	3.716860	5.673980	1.692904
	1	3.117400	-2.213622	0.972293		1	4.729427	2.845381	4.784952
	1	2.398472	-2.668235	-0.586814		1	4.256267	5.189113	4.079842
	1	4.134285	-2.951513	-0.291482		6	5.016486	1.513933	-1.207107
						6	6.268178	2.125731	-1.014249
						6	4.563874	1.264886	-2.512859
						6	7.051897	2.482448	-2.114783
						1	6.631945	2.331088	-0.009689
						6	5.351594	1.621968	-3.613066
						1	3.597356	0.791414	-2.673507
						6	6.595200	2.231445	-3.415380
						1	8.017868	2.957100	-1.956956
						1	4.991202	1.426816	-4.620611
						1	7.206385	2.512431	-4.270343
						6	1.310001	-2.480563	1.950280
						6	0.794462	-1.626228	2.943179
						6	0.996698	-3.848084	1.991303
						6	0.009254	-2.138486	3.978708
						1	1.003191	-0.557612	2.910837
						6	0.206050	-4.357004	3.028366
						1	1.361669	-4.523253	1.222877
						6	-0.280428	-3.507886	4.027456
						1	-0.380626	-1.468191	4.741312
						1	-0.027542	-5.419174	3.052072
						1	-0.891922	-3.907297	4.833589
						6	2.859005	-3.013907	-0.530895
						6	3.623082	-4.148187	-0.197359
						6	2.437385	-2.842794	-1.860486
						6	3.946707	-5.093484	-1.174454
						1	3.969423	-4.306536	0.821537
						6	2.760584	-3.790592	-2.837231
						1	1.862777	-1.962153	-2.137413
						6	3.514585	-4.917878	-2.495259
						1	4.536550	-5.966300	-0.903507
						1	2.427409	-3.643966	-3.862168
						1	3.768927	-5.655040	-3.253738
<b>TS3_Ia_cis_L2</b>	6	-0.016696	-1.385664	0.371277	<b>TS3_Ila_cis_L3</b>	6	3.063471	-0.202726	-2.508112
	6	-1.148601	-2.049674	-0.431267		6	1.672225	0.245372	-2.975550
	1	-0.200620	-1.516277	1.439330		6	0.539083	-0.483795	-2.320046
	1	0.920723	-1.911590	0.147287		6	3.106001	-0.085055	-0.914631
	6	-0.756941	-2.066906	-1.928217		7	1.774054	-0.420297	-0.403905
	8	0.403650	-2.140642	-2.303923		6	4.121310	0.700767	-3.174507
	8	-1.801027	-2.023276	-2.759580		1	1.585789	0.062413	-4.053293
	6	-1.491394	-2.062302	-4.174083		1	1.566939	1.322949	-2.837239
	1	-0.892555	-1.191478	-4.447237		8	3.855726	1.699919	-3.820832
	1	-0.950256	-2.979631	-4.415506		6	3.329260	-1.654004	-2.978570
	1	-2.456345	-2.038449	-4.679000		8	2.727209	-2.172835	-3.906365
	6	-1.282262	-3.516659	0.015919		8	4.309535	-2.258655	-2.301586
	8	-0.739941	-3.990296	0.998599		6	4.589390	-3.627294	-2.674381
	8	-2.078188	-4.219307	-0.808057		1	3.712273	-4.246695	-2.478203
	6	-2.296806	-5.607591	-0.455381		1	4.862835	-3.685257	-3.730336
	1	-2.949030	-6.002380	-1.233622		1	5.424792	-3.932401	-2.044653
	1	-1.346802	-6.146007	-0.438089		8	5.374833	0.268899	-2.962736
	1	-2.778121	-5.674511	0.522577		6	6.432259	1.090083	-3.514777
	6	0.165061	0.071457	0.042351		1	6.405617	2.085996	-3.067356
	6	0.647845	0.988541	0.991072		1	7.358367	0.577324	-3.256748
	1	0.208359	0.353641	-1.006613		1	6.323906	1.168156	-4.598728
	6	1.357440	2.154790	0.561804		1	0.628904	-1.563877	-2.265067
	1	0.583801	0.743321	2.051481		1	3.883579	-0.775175	-0.576726
	1	1.728022	2.854947	1.309697		6	-0.764913	0.031774	-2.342307
	1	1.127339	2.602041	-0.407443		1	-0.885440	1.047680	-2.721037
	7	-2.112181	0.181105	-0.171375		6	-1.928302	-0.835737	-2.269999
	16	-2.642317	1.131394	-1.346351		1	-2.780899	-0.567298	-2.895074
	8	-3.975581	0.709910	-1.881065		1	-1.742094	-1.910851	-2.236588

	8	-1.627162	1.408610	-2.409476		6	3.515428	1.313860	-0.452883
	6	-2.886101	2.708386	-0.494351		6	4.845638	1.560961	-0.078053
	6	-3.607638	2.744599	0.705349		6	2.597406	2.374512	-0.396838
	6	-2.419104	3.889450	-1.071994		6	5.255422	2.837272	0.326508
	6	-3.856322	3.971073	1.321641		1	5.569174	0.748195	-0.097260
	1	-3.956057	1.820096	1.157582		6	3.004072	3.652881	-0.002564
	6	-2.673881	5.114608	-0.441569		1	1.554480	2.191767	-0.639538
	1	-1.856673	3.851765	-2.000385		6	4.336169	3.891543	0.358864
	6	-3.394093	5.176809	0.759904		1	6.289996	3.004921	0.619265
	1	-4.415619	3.993061	2.255841		1	2.278782	4.463702	0.029539
	1	-2.303144	6.031701	-0.895961		1	4.650633	4.885251	0.671028
	6	-3.662169	6.496506	1.448977		16	1.579515	-1.866827	0.280956
	1	-3.323087	7.341372	0.843318		8	1.923156	-3.024741	-0.599321
	1	-4.731320	6.629243	1.648154		8	0.196787	-1.896936	0.830503
	1	-3.146306	6.547801	2.415028		6	2.724038	-1.977886	1.681342
	6	-2.487846	-1.227547	-0.178521		6	2.540824	-1.139488	2.788456
	28	2.457918	0.609360	0.227220		6	3.421749	-1.224652	3.866136
	1	-3.171351	-1.472849	-0.994116		6	4.496099	-2.134894	3.861110
	6	-3.182023	-1.621549	1.127312		6	4.660673	-2.961062	2.739989
	6	-4.190628	-2.598785	1.112754		6	3.781692	-2.889058	1.651635
	6	-2.856207	-1.016343	2.351542		1	3.272540	-0.573152	4.725644
	6	-4.842045	-2.979833	2.292100		1	1.719278	-0.429653	2.809520
	1	-4.480220	-3.058981	0.169781		1	5.482947	-3.673830	2.711206
	6	-3.500205	-1.397901	3.533214		1	3.909741	-3.538204	0.790825
	1	-2.114907	-0.222513	2.372254		6	5.436649	-2.216817	5.042774
	6	-4.493912	-2.384824	3.509868		1	6.265169	-2.903579	4.849341
	1	-5.625900	-3.733830	2.256824		1	5.858690	-1.234345	5.281520
	1	-3.233174	-0.917509	4.472553		1	4.911688	-2.567782	5.938958
	1	-4.999536	-2.676713	4.427972		28	-1.970615	0.056159	-0.581817
	15	4.528263	1.090042	-0.414942		15	-1.998399	1.654449	1.040569
	6	5.840879	0.103118	0.410944		15	-3.895256	-0.721304	0.043969
	6	7.200832	0.234960	0.075277		6	-4.347329	0.146525	1.636301
	6	5.471962	-0.809266	1.414227		6	-3.764019	1.568805	1.688365
	6	8.168643	-0.531921	0.730150		1	-4.339002	2.239038	1.041560
	1	7.518442	0.934096	-0.696273		1	-3.823663	1.976475	2.703032
	6	6.441435	-1.577489	2.069798		1	-3.922481	-0.477117	2.429565
	1	4.423725	-0.920768	1.689896		1	-5.431835	0.158634	1.791843
	6	7.790701	-1.439952	1.728223		6	-0.972536	1.624419	2.579777
	1	9.216938	-0.421002	0.461525		6	-1.338264	0.836659	3.685694
	1	6.141322	-2.280417	2.843807		6	0.223158	2.361378	2.647346
	1	8.545804	-2.036228	2.235928		6	-0.542650	0.805168	4.836494
	6	5.009890	2.846616	-0.118175		1	-2.246969	0.241008	3.670415
	1	6.028637	3.045607	-0.464735		6	1.016480	2.332767	3.798374
	1	4.316777	3.503045	-0.652432		1	0.536926	2.974192	1.807327
	1	4.945336	3.067097	0.950355		6	0.635277	1.557559	4.899789
	6	4.848276	0.879013	-2.222178		1	-0.848161	0.193750	5.682908
	1	4.141924	1.499096	-2.782097		1	1.933003	2.917931	3.831850
	1	5.867642	1.171851	-2.491649		1	1.250328	1.538560	5.796912
	1	4.690398	-0.165708	-2.502616		6	-1.898781	3.418813	0.511350
						6	-2.128663	4.476330	1.411720
						6	-1.647039	3.717266	-0.836364
						6	-2.105096	5.801229	0.969087
						1	-2.320601	4.270394	2.462696
						6	-1.620822	5.045522	-1.280679
						1	-1.471244	2.909655	-1.542195
						6	-1.850108	6.089239	-0.378978
						1	-2.284444	6.609130	1.675430
						1	-1.421169	5.260688	-2.328237
						1	-1.830032	7.121709	-0.721426
						6	-4.036494	-2.503430	0.472863
						6	-5.281595	-3.111341	0.717484
						6	-2.859958	-3.257081	0.615290
						6	-5.346962	-4.455045	1.096194
						1	-6.202466	-2.542629	0.607028
						6	-2.930192	-4.603131	0.996795
						1	-1.891248	-2.794582	0.439971
						6	-4.170610	-5.204133	1.235454
						1	-6.314394	-4.917213	1.281237
						1	-2.014069	-5.180271	1.103846
						1	-4.223401	-6.250927	1.527619
						6	-5.302989	-0.425357	-1.106440
						6	-6.169248	0.671865	-0.965619
						6	-5.473216	-1.281923	-2.211117
						6	-7.185075	0.903906	-1.901038
						1	-6.072463	1.356348	-0.127471
						6	-6.489491	-1.051836	-3.141989
						1	-4.822580	-2.143819	-2.340735
						6	-7.348741	0.044164	-2.991784
						1	-7.848543	1.756294	-1.771485
						1	-6.610247	-1.730088	-3.984069
						1	-8.139516	0.223677	-3.716886
TS2_Ia_trans_L2	6	-0.744512	-2.295101	0.378623	TS2_Ila_trans_L3	6	1.718571	0.366360	2.069525
	6	-1.487225	-3.588763	0.210623		6	1.958881	-0.855004	2.860400

	6	0.046096	-2.381742	1.706795	6	0.679836	0.173749	0.963847
	1	0.751518	-3.219852	1.640723	1	0.972893	-0.691501	0.365371
	1	-0.676703	-2.662929	2.479526	1	0.714037	1.050241	0.313871
	8	-1.754073	-4.313898	1.169177	8	1.599642	-1.972923	2.483153
	6	-0.015660	-1.717171	-0.762067	6	1.641411	1.695591	2.706267
	8	0.994322	-0.981679	-0.678999	8	0.843941	2.571757	2.354648
	8	-0.547499	-1.919620	-1.967772	8	2.555863	1.936039	3.680748
	6	0.081552	-1.253012	-3.085021	6	2.487035	3.237124	4.296574
	1	1.110942	-1.598195	-3.206776	1	1.513169	3.390455	4.769352
	1	-0.516927	-1.532245	-3.952153	1	3.276739	3.242695	5.049143
	1	0.066787	-0.171869	-2.938497	1	2.657220	4.025911	3.559705
	8	-1.868117	-3.910028	-1.039926	8	2.646718	-0.689875	4.019653
	6	-2.643862	-5.121186	-1.164851	6	2.949014	-1.903814	4.736969
	1	-3.573312	-5.037630	-0.597990	1	3.567629	-2.559803	4.121514
	1	-2.854925	-5.215840	-2.230382	1	3.495107	-1.583565	5.625895
	1	-2.073116	-5.983225	-0.810391	1	2.031050	-2.423473	5.025497
	6	0.781151	-1.152057	2.158487	6	-0.726400	-0.011971	1.496591
	1	0.176768	-0.290807	2.441613	1	-1.134656	0.828087	2.063966
	6	2.120954	-1.167612	2.574938	6	-1.283568	-1.279804	1.723262
	1	2.698783	-2.092002	2.534839	1	-0.764361	-2.152946	1.332237
	6	2.789688	0.088985	2.627350	6	-2.638527	-1.395293	2.110813
	1	3.867610	0.106199	2.771259	1	-3.100838	-2.377596	2.148128
	1	2.258724	0.968908	2.992637	1	-3.078010	-0.646968	2.773085
	6	-2.174788	-0.829194	0.591509	6	3.572950	0.377020	0.960258
	7	-1.800687	0.338997	-0.026426	7	3.568026	-0.664699	0.092155
	16	-1.187837	1.547355	0.850092	16	4.399645	-2.011309	0.485385
	8	0.204498	1.891236	0.436936	8	3.657298	-3.198142	-0.007189
	8	-1.376824	1.373954	2.322874	8	4.876748	-2.047927	1.894338
	6	-2.203074	2.953644	0.348001	6	5.882857	-1.898670	-0.546760
	6	-1.748807	3.828937	-0.639919	6	7.045404	-1.317815	-0.028873
	6	-2.554981	4.906606	-1.026459	6	8.181337	-1.214189	-0.836345
	6	-3.808954	5.124938	-0.436229	6	8.177977	-1.681008	-2.162100
	6	-4.241820	4.228339	0.558592	6	7.000372	-2.266065	-2.656603
	6	-3.451312	3.147717	0.951616	6	5.856315	-2.376983	-1.860426
	1	-2.196379	5.586609	-1.797110	1	9.085907	-0.769687	-0.424370
	1	-0.774373	3.676610	-1.094978	1	7.068021	-0.964778	0.998647
	1	-5.210396	4.377887	1.033114	1	6.975534	-2.647190	-3.676098
	1	-3.798245	2.467084	1.724915	1	4.956602	-2.843399	-2.252225
	6	-4.670382	6.301931	-0.836703	6	9.404222	-1.537568	-3.036115
	1	-4.300681	6.777374	-1.749366	1	10.324440	-1.675264	-2.459845
	1	-5.707740	5.995427	-1.007577	1	9.400552	-2.263613	-3.854215
	1	-4.684604	7.062668	-0.046923	1	9.448129	-0.537170	-3.484278
	28	1.997329	-0.216889	0.828149	28	-2.518321	-0.343418	0.395607
	6	-3.436301	-1.438625	0.062113	15	-2.261531	0.983324	-1.388438
	6	-4.253283	-2.193178	0.921014	15	-4.477979	-1.005096	-0.372236
	6	-3.865975	-1.214243	-1.257479	6	-3.830321	0.771762	-2.390742
	6	-5.471243	-2.716153	0.472434	1	-4.547218	1.517673	-2.031405
	1	-3.940587	-2.365397	1.948879	1	-3.643822	0.968923	-3.451029
	6	-5.076938	-1.742815	-1.708599	6	-4.401205	-0.639789	-2.196900
	1	-3.247296	-0.615866	-1.918721	1	-3.752166	-1.387916	-2.663689
	6	-5.885915	-2.496086	-0.845800	1	-5.390352	-0.729922	-2.657791
	1	-6.096599	-3.289327	1.153816	6	3.553774	1.737783	0.349427
	1	-5.397190	-1.562854	-2.733014	6	4.170184	2.807648	1.022450
	1	-6.833050	-2.900676	-1.196736	6	3.008646	1.967616	-0.927373
	1	-2.126432	-0.859070	1.683645	6	4.235387	4.077286	0.439525
	15	3.417348	1.075965	-0.313958	1	4.616852	2.639680	1.999605
	6	2.893338	1.431956	-2.045245	6	3.065104	3.237974	-1.505197
	1	3.596870	2.102302	-2.548693	1	2.560505	1.140707	-1.469828
	1	2.826350	0.495382	-2.603314	6	3.678505	4.299181	-0.825397
	1	1.902795	1.894086	-2.018008	1	4.726914	4.890281	0.970096
	6	3.625127	2.760888	0.401696	1	2.637903	3.400037	-2.492707
	1	4.088718	2.688834	1.388821	1	3.729066	5.285868	-1.281168
	1	4.238001	3.406112	-0.234967	1	4.171477	0.306011	1.871132
	1	2.631510	3.203575	0.513006	6	-0.927944	0.427631	-2.527813
	6	5.124653	0.415790	-0.493394	6	-0.367320	1.267563	-3.505286
	6	6.172514	1.182307	-1.035626	6	-0.488532	-0.904151	-2.434182
	6	5.384767	-0.907170	-0.098008	6	0.607723	0.777377	-4.379427
	6	7.451867	0.636179	-1.175642	1	-0.677972	2.306038	-3.585471
	1	6.002001	2.209049	-1.354032	6	0.481670	-1.394499	-3.314277
	6	6.664843	-1.455808	-0.241636	1	-0.894688	-1.559959	-1.665778
	1	4.582971	-1.511085	0.322749	6	1.031016	-0.554497	-4.288919
	6	7.700659	-0.684475	-0.779153	1	1.038615	1.437504	-5.129146
	1	8.253669	1.240676	-1.594329	1	0.813634	-2.426839	-3.230137
	1	6.850987	-2.481965	0.068069	1	1.791796	-0.931887	-4.968808
	1	8.696787	-1.107875	-0.889051	6	-4.923784	-2.779625	-0.241329
					6	-4.177717	-3.729446	-0.964032
					6	-5.926596	-3.223790	0.637170
					6	-4.450216	-5.093664	-0.830330
					1	-3.376244	-3.417549	-1.630654
					6	-6.193325	-4.590964	0.771585
					1	-6.505443	-2.511008	1.218526
					6	-5.460151	-5.528605	0.036739
					1	-3.869516	-5.815545	-1.400318

						1	-6.975564	-4.919927	1.452207
						1	-5.670145	-6.590767	0.141366
						6	-2.090460	2.803119	-1.216719
						6	-2.653396	3.687462	-2.156878
						6	-1.385974	3.331019	-0.120757
						6	-2.512560	5.069962	-2.002732
						1	-3.203400	3.313394	-3.016385
						6	-1.243215	4.714905	0.026813
						1	-0.935136	2.681645	0.622283
						6	-1.807216	5.587464	-0.909998
						1	-2.954075	5.739713	-2.737450
						1	-0.692046	5.105945	0.878872
						1	-1.699205	6.663383	-0.790349
						6	-5.923027	-0.049794	0.223631
						6	-7.192554	-0.191689	-0.367768
						6	-5.750941	0.873233	1.267982
						6	-8.268333	0.576284	0.083601
						1	-7.350087	-0.903796	-1.175495
						6	-6.830779	1.640964	1.719671
						1	-4.773666	0.996551	1.730121
						6	-8.089323	1.493358	1.128340
						1	-9.245826	0.458863	-0.378936
						1	-6.685598	2.352685	2.529235
						1	-8.929136	2.090037	1.477814
INT2_Ia_trans_L2	6	-1.063137	-0.291691	-0.733857	INT2_Ila_trans_L3	6	2.852056	1.176170	-0.839004
	6	-2.126236	-0.928841	-1.672683		6	3.577169	2.293909	-0.056561
	6	-0.811737	-1.330101	0.402789		6	1.367782	1.268130	-0.331221
	1	-0.553526	-2.290774	-0.049320		1	0.995270	2.260204	-0.599439
	1	-1.771070	-1.449938	0.914252		1	1.421485	1.227250	0.758270
	8	-2.271542	-2.134395	-1.789776		8	3.499367	2.421308	1.153792
	6	0.212462	-0.125184	-1.554571		6	2.882966	1.517555	-2.343618
	8	1.366321	-0.096420	-1.100610		8	1.961370	2.080663	-2.917970
	8	0.004183	-0.002791	-2.857573		8	4.027851	1.198656	-2.952894
	6	1.165275	0.186613	-3.712522		6	4.128868	1.561105	-4.347129
	1	0.762785	0.245901	-4.722403		1	4.032082	2.642897	-4.466360
	1	1.673535	1.113162	-3.440838		1	5.118595	1.228758	-4.660327
	1	1.843137	-0.662742	-3.612329		1	3.353775	1.057034	-4.929132
	8	-2.846487	-0.033096	-2.359016		8	4.273340	3.132857	-0.840948
	6	-3.796561	-0.573257	-3.310134		6	4.963548	4.213721	-0.166601
	1	-4.534470	-1.189965	-2.794456		1	5.695742	3.810358	0.535687
	1	-4.270592	0.295429	-3.765847		1	5.457874	4.776254	-0.957950
	1	-3.273347	-1.167506	-4.062618		1	4.248241	4.844042	0.366242
	6	0.220636	-0.921948	1.410018		6	0.393852	0.219364	-0.810340
	1	0.004058	-0.007740	1.960198		1	0.515129	-0.774438	-0.382154
	6	1.226365	-1.761394	1.902263		6	-0.373168	0.330561	-1.977669
	1	1.329611	-2.780484	1.527008		6	-1.393794	-0.617525	-2.232479
	6	2.326984	-1.120315	2.545762		1	-2.066427	-0.458574	-3.071193
	1	2.141868	-0.270546	3.204777		1	-1.250443	-1.658855	-1.944473
	1	3.211429	-1.705660	2.786654		6	3.507249	-0.233854	-0.476046
	6	-1.572447	1.159654	-0.172511		7	3.000932	-1.179404	-1.466293
	7	-2.163130	1.002687	1.139977		16	3.116897	-2.734154	-1.208935
	16	-3.681911	1.408267	1.323022		8	4.449661	-3.243138	-0.753056
	8	-4.166556	2.469638	0.383503		8	2.581273	-3.422474	-2.423089
	8	-3.910085	1.685597	2.772288		6	1.995203	-3.242285	0.141266
	6	-4.748577	-0.029614	0.974238		6	0.654540	-3.537768	-0.137831
	6	-4.615724	-1.188445	1.753947		6	-0.204673	-3.931792	0.890722
	6	-5.419296	-2.298151	1.492805		6	0.251046	-4.042151	2.216804
	6	-6.369471	-2.282433	0.453384		6	1.594820	-3.734775	2.479731
	6	-6.488636	-1.114780	-0.312826		6	2.463992	-3.340029	1.455413
	6	-5.686319	0.006885	-0.059131		1	-1.240992	-4.168674	0.656342
	1	-5.309799	-3.190622	2.107524		1	0.295071	-3.488429	-1.162407
	1	-3.893686	-1.219499	2.566790		1	1.976818	-3.818313	3.496226
	1	-7.220081	-1.071761	-1.118362		1	3.508197	-3.135077	1.674986
	1	-5.792972	0.908203	-0.655866		6	-0.672782	-4.517012	3.317046
	6	-7.228161	-3.497252	0.178299		1	-0.313219	-4.210465	4.303749
	1	-6.617641	-4.344558	-0.155510		1	-1.686900	-4.126679	3.185399
	1	-7.759745	-3.820127	1.080443		1	-0.745721	-5.611663	3.319977
	1	-7.971709	-3.294809	-0.597585		28	-1.708156	0.251485	-0.441164
	28	2.075507	-0.394175	0.716858		15	-3.840831	-0.318242	-0.312944
	1	-2.296787	1.492718	-0.917540		15	-1.854852	1.242107	1.547363
	6	-0.475173	2.234900	-0.185290		6	-3.365690	0.487800	2.337720
	6	-0.201531	2.923152	-1.379853		1	-3.063910	-0.497683	2.708222
	6	0.225193	2.610144	0.970683		1	-3.692711	1.069527	3.205440
	6	0.765881	3.933543	-1.428466		6	-4.488294	0.376546	1.295319
	1	-0.765284	2.684682	-2.280577		1	-4.875206	1.371656	1.051644
	6	1.194128	3.619243	0.927777		1	-5.332293	-0.211122	1.670686
	1	-0.029177	2.147150	1.918909		6	5.038900	-0.193278	-0.305344
	6	1.475584	4.281681	-0.273478		6	5.587557	0.044650	0.965170
	1	0.952335	4.458150	-2.363488		6	5.920407	-0.435117	-1.370262
	1	1.717741	3.901564	1.839544		6	6.973873	0.068800	1.166143
	1	2.222326	5.072368	-0.304081		1	4.925893	0.208123	1.813266
	15	4.150317	0.383645	0.424519		6	7.303953	-0.409851	-1.178138
	6	5.419818	-0.923053	0.191453		1	5.511334	-0.664412	-2.347097

	6	6.795649	-0.629600	0.175370		6	7.840542	-0.153098	0.091181
	6	5.003072	-2.250213	-0.007165		1	7.372613	0.251686	2.162269
	6	7.733107	-1.645919	-0.030381		1	7.968524	-0.602810	-2.018594
	1	7.149873	0.389030	0.321478		1	8.918418	-0.139764	0.241002
	6	5.942179	-3.266683	-0.217010		1	3.108267	-0.437674	0.531391
	1	3.942072	-2.492904	0.000396		1	-0.361002	1.269496	-2.527892
	6	7.308269	-2.966325	-0.226988		6	-4.127872	-2.131313	-0.253697
	1	8.794266	-1.406674	-0.037638		6	-4.073914	-2.865161	-1.453881
	1	5.605457	-4.289726	-0.369648		6	-4.341901	-2.816665	0.953538
	1	8.039682	-3.755624	-0.386727		6	-4.241563	-4.251709	-1.444934
	6	4.770485	1.429547	1.808615		1	-3.920069	-2.357583	-2.403448
	1	4.071816	2.256490	1.964698		6	-4.506058	-4.206995	0.959940
	1	4.820766	0.837569	2.725850		1	-4.391225	-2.285791	1.900185
	1	5.760706	1.842660	1.595103		6	-4.456127	-4.927846	-0.237090
	6	4.345997	1.477052	-1.046716		1	-4.205530	-4.803024	-2.381941
	1	4.106184	0.910981	-1.949944		1	-4.676383	-4.722015	1.902772
	1	3.649867	2.316602	-0.965774		1	-4.585292	-6.007845	-0.230613
	1	5.368774	1.858620	-1.124527		6	-5.002277	0.319229	-1.578751
						6	-6.320462	-0.162427	-1.670804
						6	-4.585500	1.357405	-2.427495
						6	-7.205465	0.389402	-2.600824
						1	-6.658292	-0.970053	-1.024891
						6	-5.474668	1.909320	-3.356464
						1	-3.567053	1.735410	-2.366289
						6	-6.784472	1.425769	-3.444530
						1	-8.222668	0.009733	-2.667517
						1	-5.141702	2.711466	-4.011302
						1	-7.474975	1.851774	-4.169229
						6	-0.563706	1.120382	2.844804
						6	-0.059678	2.238575	3.528745
						6	-0.058365	-0.157303	3.149713
						6	0.917144	2.077857	4.518177
						1	-0.417265	3.237001	3.294854
						6	0.911272	-0.313637	4.142993
						1	-0.409461	-1.033259	2.606971
						6	1.399533	0.803488	4.832115
						1	1.300134	2.951890	5.040413
						1	1.292880	-1.305701	4.370340
						1	2.158070	0.680594	5.602093
						6	-2.268307	3.020686	1.362587
						6	-2.945031	3.744524	2.361840
						6	-1.907764	3.675378	0.172430
						6	-3.248567	5.095551	2.172130
						1	-3.235278	3.266991	3.295050
						6	-2.208240	5.028797	-0.014722
						1	-1.394568	3.128011	-0.615024
						6	-2.879595	5.740596	0.984816
						1	-3.772025	5.643682	2.952316
						1	-1.922483	5.521594	-0.941274
						1	-3.117507	6.792152	0.839942
<b>TS3_Ia_trans_L2</b>	6	0.484725	0.564858	-0.906014	<b>TS3_Ila_trans_L3</b>	6	-3.745160	-0.166870	-1.383710
	6	-0.658733	1.495028	-0.433253		6	-2.446070	-0.556873	-2.125691
	1	0.334597	0.324997	-1.964068		6	-1.251986	0.255747	-1.708512
	1	1.431025	1.119225	-0.837643		6	-3.400166	-0.076104	0.174019
	6	-0.321984	2.110965	0.934456		7	-1.949383	0.132303	0.259375
	8	0.393221	1.588437	1.773614		6	-4.803440	-1.227544	-1.743994
	8	-0.926769	3.295219	1.108905		1	-2.593099	-0.418942	-3.202901
	6	-0.732014	3.935791	2.392378		1	-2.240158	-1.620392	-1.967888
	1	-1.141619	3.309104	3.187174		8	-5.038908	-1.536240	-2.901232
	1	0.331093	4.114128	2.567869		6	-4.275044	1.178623	-1.920502
	1	-1.275498	4.877728	2.328661		8	-3.581590	2.053852	-2.407759
	6	-0.773800	2.624224	-1.476209		8	-5.605418	1.275811	-1.776787
	8	-1.712624	2.805471	-2.229618		6	-6.207369	2.529816	-2.181535
	8	0.350512	3.364473	-1.499961		1	-6.014827	2.716108	-3.240207
	6	0.383261	4.452262	-2.456075		1	-7.274398	2.407890	-1.999341
	1	1.356648	4.923122	-2.322983		1	-5.804118	3.345944	-1.578778
	1	0.277483	4.065843	-3.472036		8	-5.416667	-1.784422	-0.691006
	1	-0.419813	5.161709	-2.244902		6	-6.423279	-2.783728	-0.993307
	6	0.616753	-0.715870	-0.126794		1	-7.220194	-2.341721	-1.594745
	6	1.192171	-1.859999	-0.708682		1	-5.972966	-3.619759	-1.532171
	1	0.590473	-0.645122	0.953847		1	-6.804027	-3.108503	-0.025741
	6	1.874226	-2.815575	0.107264		1	-1.405694	1.328217	-1.673132
	1	1.203019	-1.957620	-1.794109		6	0.060322	-0.165656	-2.015296
	1	2.298266	-3.703935	-0.359550		1	0.213275	-1.208288	-2.292914
	1	1.573538	-2.948192	1.148709		6	1.109111	0.797679	-2.272961
	7	-1.642900	-0.719183	0.051792		1	1.923401	0.475041	-2.922976
	16	-2.256317	-1.915148	-0.839756		1	0.813866	1.834959	-2.439878
	8	-1.731476	-3.189911	-0.286503		16	-1.186550	-0.593787	1.460650
	8	-2.078969	-1.723151	-2.311833		8	-1.662077	-0.194527	2.808609
	6	-4.052575	-1.957922	-0.587003		8	0.284107	-0.387704	1.243642
	6	-4.560387	-2.400486	0.641608		6	-1.437224	-2.383449	1.366233
	6	-4.920260	-1.559927	-1.605388		6	-0.729439	-3.119700	0.406860
	6	-5.940030	-2.448604	0.838698		6	-0.945244	-4.493314	0.303078

	1	-3.882950	-2.713674	1.431786		6	-1.862166	-5.154060	1.142891
	6	-6.303972	-1.608866	-1.392562		6	-2.555073	-4.395301	2.097296
	1	-4.520080	-1.227286	-2.558802		6	-2.347330	-3.015331	2.216551
	6	-6.835573	-2.051913	-0.172982		1	-0.387175	-5.063946	-0.437665
	1	-6.329124	-2.800778	1.792982		1	-0.005297	-2.626050	-0.235134
	1	-6.974663	-1.301583	-2.193090		1	-3.264945	-4.883102	2.762719
	6	-8.328964	-2.099667	0.062899		1	-2.878664	-2.441326	2.970484
	1	-8.886602	-1.860289	-0.846714		6	-2.076174	-6.645921	1.019269
	1	-8.645230	-3.091731	0.403745		1	-2.868723	-6.994387	1.686867
	1	-8.627345	-1.383251	0.837377		1	-2.348804	-6.922273	-0.005221
	6	-1.998275	0.636252	-0.382365		1	-1.160740	-7.195227	1.267980
	28	2.946999	-1.219770	0.016053		6	-4.199404	0.980732	0.939447
	15	4.981021	-1.421720	0.869672		6	-5.387824	0.629226	1.595971
	6	6.253350	-0.340653	0.098780		6	-3.762198	2.312632	1.005081
	6	7.576080	-0.282729	0.574467		6	-6.131376	1.587597	2.294432
	6	5.893241	0.446189	-1.008845		1	-5.735870	-0.400417	1.562935
	6	8.515543	0.546175	-0.045342		6	-4.505993	3.274494	1.696113
	1	7.886763	-0.881380	1.428836		1	-2.826389	2.590989	0.528144
	6	6.834057	1.276146	-1.629753		6	-5.695379	2.916564	2.343541
	1	4.874866	0.410709	-1.395329		1	-7.047618	1.294923	2.803445
	6	8.146231	1.327442	-1.148302		1	-4.151922	4.302739	1.738209
	1	9.535163	0.581968	0.332140		1	-6.270274	3.663202	2.887510
	1	6.540849	1.879514	-2.486048		1	-3.683436	-1.053071	0.577065
	1	8.879145	1.971916	-1.628895		28	1.302292	0.365050	-0.414428
	6	5.677912	-3.125634	0.729501		15	2.473547	2.151556	0.142502
	1	6.675524	-3.187629	1.175080		15	3.274278	-0.984192	-0.397391
	1	5.013754	-3.827337	1.242617		6	4.563324	0.285274	0.103717
	1	5.737381	-3.409818	-0.324203		1	4.580067	0.257052	1.199194
	6	5.105284	-1.079718	2.680503		1	5.567175	-0.001514	-0.229559
	1	4.412418	-1.738244	3.212719		6	4.216395	1.708413	-0.370993
	1	6.117328	-1.250673	3.060035		1	4.257204	1.769708	-1.463918
	1	4.819010	-0.043380	2.877882		1	4.944016	2.423356	0.029926
	1	-2.352661	0.657739	-1.418511		6	2.163103	3.782772	-0.662535
	6	-3.088515	1.254651	0.498551		6	0.871476	4.327470	-0.530560
	6	-4.045324	2.118711	-0.053700		6	3.116694	4.490070	-1.413767
	6	-3.156497	0.966685	1.870944		6	0.547020	5.553521	-1.116830
	6	-5.037329	2.696735	0.747774		1	0.112749	3.787070	0.033554
	1	-4.013192	2.344274	-1.116495		6	2.788866	5.714210	-2.012189
	6	-4.139246	1.549945	2.676589		1	4.123916	4.102620	-1.539821
	1	-2.444105	0.268923	2.302437		6	1.506281	6.251222	-1.863486
	6	-5.084748	2.420089	2.118751		1	-0.455349	5.960128	-0.999041
	1	-5.774669	3.360167	0.299681		1	3.540251	6.246968	-2.591535
	1	-4.174679	1.316747	3.739208		1	1.253653	7.202371	-2.327253
	1	-5.854837	2.868316	2.743383		6	2.699190	2.622077	1.920594
						6	3.473191	3.732598	2.305825
						6	2.094762	1.835858	2.915490
						6	3.645114	4.044884	3.657322
						1	3.939664	4.364262	1.552447
						6	2.268250	2.149312	4.270400
						1	1.482974	0.985626	2.627720
						6	3.043211	3.251792	4.644291
						1	4.245299	4.907165	3.940931
						1	1.793728	1.532804	5.031289
						1	3.175609	3.496666	5.696193
						6	3.723268	-2.377184	0.736871
						6	4.858141	-3.189082	0.557502
						6	2.896971	-2.600702	1.852490
						6	5.163388	-4.197278	1.477593
						1	5.505465	-3.039894	-0.303953
						6	3.207112	-3.605929	2.777279
						1	2.007094	-1.990976	1.989481
						6	4.339746	-4.406402	2.592117
						1	6.044247	-4.818250	1.326264
						1	2.559048	-3.767809	3.636392
						1	4.578237	-5.191073	3.307252
						6	3.840137	-1.606404	-2.040955
						6	4.843666	-0.999732	-2.815138
						6	3.146096	-2.703519	-2.590424
						6	5.155899	-1.483553	-4.093145
						1	5.401532	-0.148641	-2.433876
						6	3.464080	-3.194776	-3.858764
						1	2.355308	-3.185419	-2.017360
						6	4.471427	-2.583658	-4.618509
						1	5.938522	-0.999083	-4.673635
						1	2.922147	-4.050142	-4.257283
						1	4.716172	-2.960246	-5.609345
COMI_II_L2	6	-1.974536	0.720535	1.018531	COMI_I_L4	6	-2.894718	1.134538	-0.060005
	6	-3.930101	-0.979879	0.689348		6	-1.334741	-0.329337	1.484261
	6	-2.908413	-0.012724	0.098951		6	-2.357287	-0.204198	0.354264
	1	-4.905107	-0.978621	0.210589		1	-1.410019	-1.228584	2.087953
	1	-3.943251	-1.056730	1.773901		1	-1.121212	0.584543	2.028635
	8	-0.780701	0.451281	1.179750		8	-3.405009	1.362271	-1.145860
	6	-3.293184	0.695054	-1.151489		6	-3.230486	-1.401518	0.157937

	8	-4.164059	0.314448	-1.921830		8	-2.832371	-2.554564	0.266502
	8	-2.534872	1.792671	-1.364605		8	-4.515024	-1.087629	-0.097800
	6	-2.806413	2.532430	-2.578718		6	-5.420039	-2.205403	-0.264332
	1	-3.837711	2.892096	-2.580347		1	-5.453177	-2.806428	0.647154
	1	-2.108883	3.369420	-2.567965		1	-6.393491	-1.758680	-0.464981
	1	-2.635121	1.900833	-3.453201		1	-5.103326	-2.828527	-1.103597
	28	0.016342	-1.323098	0.428327		28	1.940604	0.179351	-0.347182
	15	2.081695	-1.225052	-0.244855		8	-2.710022	2.085421	0.880191
	6	3.191624	-2.440279	0.616187		6	-3.124624	3.423653	0.516904
	1	3.246703	-2.194189	1.680517		1	-2.877644	4.045791	1.376808
	1	2.755555	-3.438925	0.518177		1	-2.584409	3.761157	-0.370484
	1	4.205118	-2.451904	0.201748		1	-4.199127	3.446394	0.322035
	1	3.382587	-1.788218	-2.296402		6	0.022110	0.602488	-0.542778
	1	1.862518	-2.707488	-2.165916		6	0.654091	0.423323	-1.789629
	1	1.826086	-1.009067	-2.671879		6	-0.820740	-0.450978	0.090418
	8	-2.572363	1.715803	1.677136		1	-0.650434	-1.465018	-0.261446
	6	-1.741387	2.502476	2.569054		1	-0.125387	1.618856	-0.168515
	1	-2.410074	3.246723	2.999556		1	0.521200	-0.501532	-2.354816
	1	-1.317735	1.865675	3.348275		1	0.946799	1.289276	-2.385371
	1	-0.939389	2.983946	2.005639		15	4.057111	-0.230823	0.135960
	6	2.325856	-1.727754	-2.016010		6	5.308918	0.856965	-0.684511
	6	-1.659957	-2.279114	0.701205		6	4.718859	-1.919146	-0.233600
	6	-0.689155	-3.093407	0.042221		1	5.771966	-2.009149	0.055759
	6	-2.759265	-1.572128	-0.028492		1	4.134292	-2.668563	0.307842
	1	-2.953238	-1.900628	-1.047474		1	4.625511	-2.123916	-1.304127
	1	-1.840979	-2.443050	1.766867		6	4.487669	-0.035373	1.926714
	1	-0.221750	-3.909348	0.596319		1	3.892166	-0.728751	2.527769
	1	-0.781134	-3.285881	-1.029907		1	5.550415	-0.235269	2.102717
	6	3.080104	0.338514	-0.149594		1	4.258877	0.983170	2.253326
	6	2.470088	1.486434	0.384005		1	6.327108	0.601954	-0.369683
	6	4.416100	0.428688	-0.583680		1	5.234095	0.747545	-1.770298
	6	3.173757	2.694383	0.482181		1	5.107549	1.902185	-0.433095
	1	1.439133	1.431093	0.724606					
	6	5.121009	1.632791	-0.487616					
	1	4.921482	-0.440176	-1.001621					
	6	4.500655	2.770497	0.046267					
	1	2.684981	3.573216	0.898267					
	1	6.153194	1.683797	-0.828647					
	1	5.049296	3.707201	0.120869					
<b>TS1_H_L2</b>	6	-3.215043	-2.115383	-0.334807	<b>TS1_I_L4</b>	6	-3.220238	1.108441	-0.004066
	6	-3.030689	-0.670865	0.093964		6	-1.484814	-0.022365	1.555865
	6	-2.100741	-1.796493	-1.246384		6	-2.612938	-0.106541	0.538450
	6	-2.208577	-0.355524	1.285963		1	-1.462137	-0.871657	2.235239
	1	-4.187091	-2.290870	-0.795678		1	-1.407555	0.934420	2.064498
	1	-2.988257	-2.854642	0.434939		8	-4.089564	1.192833	-0.871180
	8	-0.973941	-0.225894	1.302107		6	-3.131243	-1.453276	0.300292
	6	-3.830721	0.340919	-0.530042		8	-2.616271	-2.467290	0.788679
	8	-4.604711	0.161473	-1.482828		8	-4.228803	-1.533298	-0.495104
	8	-3.630062	1.588130	0.015432		6	-4.736296	-2.865813	-0.714702
	6	-4.393474	2.658859	-0.569684		1	-5.032191	-3.330308	0.229430
	1	-5.466294	2.470775	-0.473567		1	-5.604428	-2.738759	-1.362661
	1	-4.117228	3.553729	-0.010284		1	-3.985592	-3.491750	-1.203940
	1	-4.143762	2.782792	-1.627003		28	1.896046	0.311912	0.085220
	28	0.147060	-0.594562	-0.371544		8	-2.689073	2.234827	0.569248
	15	1.700225	0.919568	-0.488181		6	-3.182064	3.488251	0.059681
	6	1.477222	2.440966	0.547616		1	-2.633295	4.258524	0.603056
	1	2.301226	3.152017	0.429953		1	-2.993567	3.573309	-1.013540
	1	0.542286	2.930884	0.257797		1	-4.254904	3.585785	0.245244
	1	1.400227	2.154205	1.599983		6	0.035019	0.900774	-0.320748
	6	1.961288	1.651849	-2.167835		6	0.837848	0.670773	-1.478309
	1	2.742195	2.418966	-2.173016		6	-0.683373	-0.157798	0.327873
	1	2.233361	0.859108	-2.869593		1	-0.543536	-1.170686	-0.040930
	1	1.022809	2.102302	-2.505652		1	-0.126196	1.916309	0.037973
	8	-2.915233	-0.241293	2.416552		1	0.713409	-0.247933	-2.056433
	6	-2.173915	0.076374	3.623874		1	1.198275	1.523460	-2.054583
	1	-2.924711	0.142272	4.410594		15	4.020777	-0.270181	-0.003850
	1	-1.453117	-0.714272	3.842264		6	5.173165	1.032410	-0.627538
	1	-1.653136	1.028790	3.505393		6	4.389728	-1.697934	-1.116432
	6	-0.751302	-2.230710	-1.069438		1	5.462828	-1.917374	-1.138857
	6	0.341433	-1.751370	-1.885012		1	3.850804	-2.583635	-0.768158
	1	-2.373391	-1.262703	-2.154051		1	4.050957	-1.468863	-2.130792
	1	-0.581972	-3.044403	-0.361401		6	4.819905	-0.783612	1.583571
	1	1.243061	-2.363426	-1.936736		1	4.291279	-1.645969	2.000236
	1	0.105611	-1.248856	-2.827110		1	5.870853	-1.051168	1.429254
	6	3.387069	0.339108	-0.007013		1	4.764738	0.034269	2.308027
	6	3.538534	-0.972912	0.472284		1	6.203577	0.663149	-0.672867
	6	4.523961	1.164105	-0.089174		1	4.862610	1.347746	-1.627718
	6	4.795449	-1.452257	0.862244		1	5.134631	1.903868	0.032339
	1	2.666637	-1.621250	0.536908					
	6	5.780260	0.686756	0.297298					
	1	4.442139	2.186119	-0.454818					
	6	5.918906	-0.623288	0.774910					
	1	4.895135	-2.470784	1.231794					



	1	6.650036	1.336660	0.226585					
	1	6.896790	-0.993330	1.075940					
INT1_II_L2	6	-2.560739	-1.549022	0.474557	INT1_I_L4	6	-2.164372	-0.421900	-0.210598
	6	-3.182985	-0.203337	0.101531		6	-3.602936	-0.425877	-0.054605
	6	-1.278932	-1.844690	-0.258874		6	-1.543690	-1.787302	-0.496990
	6	-2.347644	0.923355	0.001394		1	-1.316549	-1.909928	-1.565958
	1	-3.286661	-2.332533	0.241712		1	-2.301493	-2.539983	-0.256265
	1	-2.374596	-1.617684	1.556314		8	-4.309449	-1.444843	-0.173492
	8	-1.061433	0.941157	0.099899		6	-1.323667	0.703945	-0.202857
	6	-4.619765	-0.104789	-0.038825		8	-0.036914	0.694329	-0.302483
	8	-5.310394	0.870057	-0.365331		8	-1.887451	1.941406	-0.117352
	8	-5.248158	-1.311062	0.240338		6	-0.994068	3.067166	-0.082601
	6	-6.674588	-1.317413	0.082494		1	-0.405908	3.137193	-1.001512
	1	-6.959879	-1.078067	-0.946177		1	-1.642994	3.939926	0.009795
	1	-6.991630	-2.331806	0.332212		1	-0.319418	3.013801	0.776243
	1	-7.149976	-0.599313	0.756934		8	-4.193973	0.770085	0.265810
	28	0.215604	-0.508147	-0.009559		6	-5.621292	0.724961	0.434836
	15	1.990584	0.850362	0.086414		1	-5.902261	0.052114	1.250139
	6	1.920504	1.891615	1.602445		1	-5.915744	1.748316	0.675208
	1	2.707602	2.651960	1.617817		1	-6.118499	0.396564	-0.482269
	1	0.944076	2.383057	1.614224		6	-0.295844	-2.054902	0.301085
	1	1.995581	1.271280	2.499355		1	-0.384874	-1.938329	1.386049
	8	-2.931179	2.138628	-0.193897		6	0.846145	-2.688336	-0.211637
	6	-2.058934	3.273155	-0.328030		1	0.860047	-3.007129	-1.254884
	1	-2.724920	4.125617	-0.473359		6	2.077980	-2.483348	0.471296
	1	-1.454883	3.422366	0.570842		1	2.099575	-2.478259	1.562885
	1	-1.400447	3.166886	-1.194706		1	3.001911	-2.803986	-0.004418
	6	-0.157001	-2.437411	0.343280		28	1.221823	-0.741574	0.020656
	6	1.100828	-2.271204	-0.296054		15	3.011247	0.589829	0.022922
	1	-1.328482	-1.807253	-1.351812		6	4.702165	-0.137861	0.001328
	1	-0.187808	-2.685187	1.405275		6	3.053608	1.699426	1.495512
	1	2.008763	-2.540179	0.237778		1	2.116956	2.260017	1.553792
	1	1.170311	-2.328327	-1.384088		1	3.152006	1.100580	2.405611
	6	3.694867	0.167419	0.026633		1	3.891139	2.402919	1.439203
	6	4.594513	0.277602	1.099866		6	3.033742	1.763091	-1.397181
	6	4.103359	-0.519487	-1.132593		1	3.163054	1.207230	-2.330460
	6	5.876840	-0.279625	1.012578		1	2.076033	2.287179	-1.440946
	1	4.312902	0.796431	2.011959		1	3.845447	2.491832	-1.300248
	6	5.385720	-1.066797	-1.221985		1	4.840359	-0.776813	0.878108
	1	3.421578	-0.633203	-1.973906		1	5.468900	0.644075	0.006686
	6	6.277176	-0.949611	-0.147502		1	4.828252	-0.752847	-0.894371
	1	6.560903	-0.185153	1.853214					
	1	5.686333	-1.588949	-2.127785					
	1	7.274143	-1.379573	-0.214780					
	6	1.987544	2.107096	-1.267380					
	1	2.787299	2.840539	-1.125523					
	1	1.019252	2.613699	-1.268204					
	1	2.119573	1.616707	-2.235137					
TS2_IIa_cis_L2	6	-2.279215	-1.671820	-1.410735	COM1_II_L4	6	-1.488809	-0.407997	-1.076990
	6	-1.153211	-2.689848	-1.538776		6	-2.565399	1.946784	-0.727718
	6	0.253914	-2.166083	-1.739685		6	-2.068566	0.623960	-0.151593
	6	-1.207681	-0.219777	0.623336		1	-3.474710	2.338637	-0.281018
	7	-0.010613	0.119850	0.166483		1	-2.493364	2.053027	-1.807506
	6	-3.407843	-2.137895	-0.634343		8	-0.286721	-0.654397	-1.204869
	1	-1.349552	-3.345087	-2.405451		6	-2.769873	0.108440	1.054152
	1	-1.177206	-3.342772	-0.664094		8	-3.439538	0.796518	1.812746
	8	-3.465320	-3.246493	-0.073398		6	-2.544470	-1.210191	1.245566
	6	-2.422100	-0.790834	-2.559126		8	-3.155267	-1.800299	2.417321
	8	-1.749790	-0.908506	-3.596718		1	-4.241722	-1.698323	2.370332
	8	-3.362607	0.201057	-2.462113		1	-2.868025	-2.851120	2.393595
	6	-3.535684	0.997771	-3.647312		1	-2.779301	-1.319754	3.323295
	1	-2.611588	1.521742	-3.904525		28	1.139040	0.603986	-0.354161
	1	-3.842707	0.378811	-4.495588		15	2.887671	-0.502353	0.322190
	1	-4.324912	1.712502	-3.404895		6	4.481258	-0.007788	-0.487832
	8	-4.461338	-1.261995	-0.512858		1	4.423852	-0.203584	-1.563024
	6	-5.619971	-1.783494	0.159886		1	4.640083	1.065512	-0.348044
	1	-5.386242	-2.079623	1.185683		1	5.337004	-0.553260	-0.073268
	1	-6.347020	-0.968898	0.158934		1	4.248437	-0.816646	2.373884
	1	-6.027777	-2.648056	-0.372908		1	3.435365	0.770562	2.336508
	1	0.389892	-1.407400	-2.510129		1	2.508698	-0.683974	2.735115
	1	-2.048087	0.456658	0.475577		8	-2.423423	-1.051919	-1.781552
	6	1.361215	-2.896950	-1.309271		6	-1.961170	-2.094409	-2.678244
	1	1.201893	-3.776012	-0.682535		1	-2.863000	-2.494001	-3.140305
	6	2.658696	-2.317019	-1.357734		1	-1.293918	-1.673141	-3.432977
	1	3.492246	-2.860610	-0.920275		1	-1.439657	-2.870040	-2.113525
	1	2.928090	-1.671739	-2.195790		6	3.320642	-0.294178	2.113375
	6	-1.419246	-1.226504	1.663246		6	0.037096	2.186516	-0.607783
	6	-2.620905	-1.146026	2.397424		6	1.231164	2.483792	0.121446
	6	-0.462692	-2.192544	2.036262		6	-1.290064	1.976412	0.052323
	6	-2.850035	-1.990154	3.484423		1	-1.380522	2.323369	1.079708
	1	-3.366842	-0.403735	2.122759		1	-0.010612	2.464531	-1.664123
	6	-0.699189	-3.044580	3.112735		1	2.020586	3.054097	-0.371491
	1	0.467131	-2.280358	1.479745		1	1.180703	2.648791	1.201081

	6	-1.890815	-2.942864	3.845499		6	2.973246	-2.350946	0.159730
	1	-3.776367	-1.906371	4.048028		1	2.862146	-2.631993	-0.892326
	1	0.046342	-3.787294	3.387891		1	3.919647	-2.756056	0.536210
	1	-2.067646	-3.603455	4.691470		1	2.147800	-2.804765	0.717304
	16	0.095842	1.607497	-0.706654					
	8	-0.359724	1.412236	-2.089770					
	8	1.480679	2.054907	-0.483578					
	6	-1.014330	2.759590	0.104751					
	6	-0.610677	3.383900	1.291778					
	6	-1.466992	4.302979	1.896058					
	6	-2.719322	4.612805	1.332597					
	6	-3.094666	3.971990	0.141327					
	6	-2.250952	3.046545	-0.479855					
	1	-1.154602	4.790534	2.817673					
	1	0.358525	3.168031	1.731690					
	1	-4.058512	4.195026	-0.311737					
	1	-2.548524	2.550760	-1.397685					
	6	-3.622278	5.631239	1.988538					
	1	-3.648137	5.497455	3.074530					
	1	-3.259604	6.648052	1.795599					
	1	-4.645016	5.565198	1.608278					
	28	1.487026	-1.109764	-0.310500					
	15	3.177263	-0.425413	0.977697					
	6	2.776497	0.835505	2.261897					
	1	1.932610	0.484839	2.863724					
	1	3.636897	1.010245	2.915539					
	1	2.497635	1.767082	1.767767					
	6	3.820103	-1.815007	2.010950					
	1	4.565097	-1.475721	2.736614					
	1	2.985333	-2.258276	2.562180					
	1	4.265249	-2.587237	1.379076					
	6	4.656562	0.258830	0.125382					
	6	5.920708	0.298748	0.741049					
	6	4.513308	0.785162	-1.169730					
	6	7.018592	0.848453	0.071231					
	1	6.065743	-0.095403	1.744288					
	6	5.611460	1.338306	-1.837294					
	1	3.540068	0.772849	-1.652732					
	6	6.866653	1.369069	-1.219626					
	1	7.991176	0.869019	0.558209					
	1	5.485138	1.742837	-2.839282					
	1	7.721767	1.795470	-1.739807					
INT2_IIa_cis_L2	6	1.866709	-1.530255	0.742428	TS1_II_L4	6	-2.358002	1.916051	-0.836226
	6	0.937061	-2.596996	0.087270		6	-2.139599	0.531661	-0.254918
	6	-0.564575	-2.456848	0.194311		6	-1.083199	2.198983	-0.149461
	6	2.377531	-0.427173	-0.316391		6	-1.508126	-0.522392	-1.084355
	7	1.373373	-0.065476	-1.313101		1	-3.246659	2.403305	-0.435012
	6	3.111757	-2.264247	1.301913		1	-2.320640	1.966574	-1.925491
	1	1.177941	-3.560938	0.546872		8	-0.287739	-0.715510	-1.204422
	1	1.218741	-2.684568	-0.962699		6	-2.732518	0.205610	1.007551
	8	3.436665	-3.405809	1.030453		8	-3.342474	0.995372	1.744556
	6	1.210152	-0.916951	1.998322		8	-2.527597	-1.108018	1.364165
	8	0.540202	-1.580921	2.776659		6	-3.070045	-1.505249	2.636509
	8	1.506597	0.370585	2.201582		1	-4.155268	-1.373037	2.656515
	6	0.971096	0.962872	3.406407		1	-2.818147	-2.561179	2.744349
	1	-0.120104	0.929053	3.388163		1	-2.622534	-0.925861	3.448746
	1	1.343455	0.430256	4.284531		8	-2.383678	-1.276473	-1.759499
	1	1.323350	1.993548	3.401542		6	-1.836125	-2.329326	-2.596068
	8	3.810453	-1.476880	2.141316		1	-2.701684	-2.822515	-3.037109
	6	5.017520	-2.049944	2.699151		1	-1.198164	-1.900532	-3.371676
	1	5.721255	-2.292049	1.899918		1	-1.259434	-3.030040	-1.988789
	1	5.426797	-1.279625	3.352135		6	0.184875	2.329234	-0.794169
	1	4.779072	-2.950983	3.268468		6	1.428425	2.437450	-0.064133
	1	-0.966257	-2.457631	1.208155		1	-1.159345	2.401773	0.916484
	1	2.687218	0.429638	0.288592		1	0.179580	2.467288	-1.877127
	6	-1.421783	-2.810084	-0.845512		1	2.282600	2.876821	-0.582031
	1	-1.013762	-2.971211	-1.844252		1	1.386512	2.697933	0.997190
	6	-2.823290	-2.593195	-0.680568		28	1.065502	0.585674	-0.382085
	1	-3.476427	-2.734039	-1.539410		15	2.758766	-0.526364	0.391755
	1	-3.289420	-2.812816	0.281230		6	2.696258	-2.376553	0.367356
	6	3.623292	-0.888859	-1.080787		1	3.615063	-2.820027	0.767049
	6	4.895771	-0.472468	-0.658808		1	1.846321	-2.721095	0.964111
	6	3.533406	-1.698406	-2.225637		1	2.550713	-2.724529	-0.659676
	6	6.050866	-0.872872	-1.342084		6	3.201956	-0.186737	2.154952
	1	4.987616	0.179692	0.207405		1	4.094227	-0.744405	2.460906
	6	4.684158	-2.106418	-2.907035		1	3.387990	0.883272	2.283928
	1	2.557043	-1.988368	-2.602431		1	2.367617	-0.467552	2.804594
	6	5.950120	-1.699382	-2.465985		6	4.357840	-0.188447	-0.474660
	1	7.025888	-0.531876	-0.999653		1	4.580372	0.881121	-0.422698
	1	4.592743	-2.735081	-3.790669		1	5.185688	-0.748665	-0.025698
	1	6.844762	-2.012036	-3.000457		1	4.271110	-0.466750	-1.529178
	16	0.268566	0.987945	-1.004864					
	8	-0.710113	0.608652	0.127396					

	8	-0.472297	1.303712	-2.258878					
	6	0.968319	2.542863	-0.394018					
	6	2.108232	3.045386	-1.031425					
	6	2.637570	4.273803	-0.628187					
	6	2.044383	5.016938	0.406638					
	6	0.899811	4.491797	1.029178					
	6	0.361272	3.261951	0.639158					
	1	3.523829	4.659557	-1.129166					
	1	2.580124	2.483155	-1.833793					
	1	0.419706	5.049604	1.831622					
	1	-0.519686	2.862903	1.131332					
	6	2.640235	6.332038	0.856813					
	1	1.877889	6.993205	1.279269					
	1	3.399184	6.169722	1.632192					
	1	3.127621	6.854942	0.028488					
	28	-1.890536	-0.888267	-0.373151					
	15	-3.660416	0.348900	-0.870879					
	6	-3.498984	2.133979	-0.442271					
	1	-2.627764	2.538228	-0.962522					
	1	-4.398490	2.683550	-0.737113					
	1	-3.345733	2.242399	0.634154					
	6	-3.990689	0.395621	-2.679328					
	1	-4.778978	1.109858	-2.936330					
	1	-3.061656	0.702120	-3.167673					
	1	-4.267220	-0.596773	-3.044575					
	6	-5.236894	-0.143831	-0.066173					
	6	-6.470414	-0.165656	-0.737995					
	6	-5.197961	-0.493614	1.296323					
	6	-7.640927	-0.526771	-0.059356					
	1	-6.535836	0.094445	-1.791254					
	6	-6.368375	-0.842928	1.975919					
	1	-4.248421	-0.497292	1.830050					
	6	-7.593857	-0.862509	1.297897					
	1	-8.588304	-0.543987	-0.593915					
	1	-6.322122	-1.107580	3.030111					
	1	-8.504575	-1.141600	1.823409					
TS3_IIa_cis_L2	6	-3.099486	-0.317509	-1.032640	INT1_II_L4	6	1.537476	-1.774028	-0.457027
	6	-2.297235	-1.457789	-1.680272		6	2.189690	-0.420977	-0.185317
	6	-0.813805	-1.192941	-1.656076		6	0.287123	-2.009240	0.346595
	6	-2.521000	-0.135790	0.425063		6	1.371780	0.721229	-0.142604
	7	-1.093775	-0.364091	0.217539		1	2.279053	-2.541573	-0.212622
	6	-4.597469	-0.664020	-1.021517		1	1.304645	-1.901880	-1.524268
	1	-2.587188	-1.559797	-2.731936		8	0.083674	0.742791	-0.216358
	1	-2.532850	-2.401578	-1.185759		6	3.632733	-0.454462	-0.083239
	8	-5.058198	-1.762388	-1.268914		8	4.311622	-1.489625	-0.223142
	6	-2.950925	0.956250	-1.898088		8	4.262717	0.730037	0.202158
	8	-3.011892	0.922983	-3.117467		6	5.695106	0.654842	0.303763
	8	-2.775108	2.078639	-1.194464		1	6.141067	0.310442	-0.633600
	6	-2.667574	3.305196	-1.959160		1	6.022374	1.673038	0.522823
	1	-1.818635	3.248520	-2.642812		1	6.000289	-0.018958	1.109488
	1	-3.587939	3.475767	-2.521931		28	-1.207499	-0.667584	0.061621
	1	-2.513118	4.089514	-1.219776		15	-3.053327	0.579639	-0.021438
	8	-5.341445	0.410884	-0.707070		6	-2.781344	2.391576	-0.200553
	6	-6.774753	0.202854	-0.644886		1	-3.732908	2.928986	-0.270645
	1	-7.012113	-0.534130	0.125084		1	-2.220372	2.763155	0.660748
	1	-7.195637	1.174995	-0.390898		1	-2.189439	2.583616	-1.098972
	1	-7.147056	-0.138367	-1.613117		8	1.964057	1.943940	-0.041348
	1	-0.509130	-0.274753	-2.158299		6	1.096422	3.086049	0.060597
	1	-2.736067	0.890806	0.735645		1	1.766802	3.941609	0.160646
	6	0.135693	-2.238778	-1.670982		1	0.479044	3.198311	-0.834315
	1	-0.178994	-3.196983	-1.255288		1	0.448549	3.015181	0.938505
	6	1.370468	-2.193591	-2.442498		6	-0.865716	-2.623788	-0.164391
	1	1.777400	-3.158837	-2.750773		6	-2.095779	-2.396664	0.513586
	1	1.458955	-1.431259	-3.223577		1	0.380233	-1.890656	1.430845
	6	-3.163941	-1.077345	1.447087		1	-0.883571	-2.946680	-1.206298
	6	-4.254550	-0.626622	2.207381		1	-3.022010	-2.715930	0.040441
	6	-2.700307	-2.385868	1.648616		1	-2.119189	-2.379624	1.605071
	6	-4.881241	-1.467719	3.134063		6	-4.163960	0.464508	1.445405
	1	-4.611360	0.394635	2.084912		1	-5.045817	1.102412	1.323790
	6	-3.325363	-3.230739	2.571375		1	-3.621887	0.774709	2.343436
	1	-1.829075	-2.736695	1.102023		1	-4.489739	-0.570294	1.582040
	6	-4.421523	-2.777009	3.315670		6	-4.179059	0.186642	-1.428731
	1	-5.720955	-1.097393	3.718679		1	-5.062656	0.833763	-1.420607
	1	-2.950895	-4.242151	2.716305		1	-3.646733	0.323258	-2.374489
	1	-4.903703	-3.432715	4.037641		1	-4.501263	-0.856386	-1.364813
	16	-0.015176	0.224378	1.217808					
	8	1.288039	-0.476113	0.917424					
	8	-0.409789	0.181533	2.644379					
	6	0.294871	1.963077	0.834781					
	6	-0.170805	2.960671	1.692778					
	6	0.037599	4.305049	1.358970					
	6	0.708537	4.666088	0.181714					
	6	1.167804	3.639327	-0.665651					

	6	0.964393	2.296883	-0.349789					
	1	-0.326506	5.079564	2.031497					
	1	-0.682344	2.693404	2.612929					
	1	1.693885	3.894700	-1.584185					
	1	1.329763	1.518075	-1.015833					
	6	0.953990	6.116451	-0.168784					
	1	0.668782	6.328553	-1.204721					
	1	0.390270	6.788012	0.484406					
	1	2.016720	6.367603	-0.069316					
	28	1.827256	-1.464478	-0.771946					
	15	4.000611	-1.515853	-0.915890					
	6	4.628695	-3.255526	-0.815514					
	1	4.127472	-3.856759	-1.579471					
	1	5.710585	-3.313811	-0.970877					
	1	4.387387	-3.674187	0.165378					
	6	4.672488	-0.964716	-2.550474					
	1	5.753804	-1.117603	-2.622138					
	1	4.180727	-1.530414	-3.346731					
	1	4.454565	0.096981	-2.695802					
	6	5.077618	-0.615209	0.287905					
	6	6.482254	-0.698070	0.237264					
	6	4.481425	0.182075	1.279342					
	6	7.270951	-0.000152	1.156514					
	1	6.976633	-1.306311	-0.517963					
	6	5.272673	0.881739	2.200324					
	1	3.398693	0.249888	1.332233					
	6	6.666968	0.792852	2.141550					
	1	8.355182	-0.075055	1.104117					
	1	4.796777	1.494676	2.963166					
	1	7.281309	1.335833	2.856847					
TS2_Ia_trans_L2	6	2.207198	-1.016260	-1.399109	TS2_Ia_cis_L4	6	-0.208723	-2.283095	0.227357
	6	0.931161	-0.737162	-2.192411		6	0.448309	-3.545498	0.690803
	6	-0.348711	-1.401369	-1.741872		6	-0.810774	-2.500218	-1.177613
	6	1.797567	-0.355801	0.748404		1	-1.598043	-3.262192	-1.118019
	7	0.477519	-0.141504	0.946683		1	-0.020719	-2.936895	-1.797480
	6	3.253590	-0.026507	-1.730697		8	0.455659	-4.583007	0.031645
	1	1.096789	-0.994812	-3.249021		6	-1.085016	-1.592710	1.176371
	1	0.772043	0.343157	-2.193202		8	-1.964342	-0.751240	0.867100
	8	3.069521	0.936117	-2.483506		8	-0.894283	-1.856992	2.472303
	6	2.522691	-2.450694	-1.293569		6	-1.673695	-1.090795	3.420956
	8	1.673917	-3.339660	-1.431350		1	-2.740505	-1.278303	3.278152
	8	3.815931	-2.761169	-1.027495		1	-1.353563	-1.449604	4.399451
	6	4.095455	-4.164533	-0.855670		1	-1.453210	-0.029198	3.305152
	1	3.853989	-4.723698	-1.763649		8	1.103379	-3.449365	1.869435
	1	5.165028	-4.221120	-0.649167		6	1.734719	-4.660236	2.336988
	1	3.526692	-4.570433	-0.015963		1	2.496142	-4.996843	1.629301
	8	4.439760	-0.180906	-1.084772		1	2.189835	-4.397650	3.292404
	6	5.448760	0.802251	-1.391839		1	0.992570	-5.450708	2.473561
	1	5.111730	1.805637	-1.119560		6	-1.344393	-1.272663	-1.863017
	1	6.317845	0.518441	-0.796710		1	-0.625553	-0.480980	-2.069217
	1	5.697326	0.783768	-2.456266		6	-2.596128	-1.206875	-2.486161
	1	-0.369338	-1.883793	-0.768354		1	-3.270131	-2.064155	-2.454907
	6	-1.422223	-1.592831	-2.605605		6	-3.112527	0.096148	-2.756263
	1	-1.343613	-1.249254	-3.638697		1	-2.443161	0.873580	-3.128417
	6	-2.714225	-1.859356	-2.052857		1	-4.148332	0.193747	-3.074372
	1	-3.570933	-1.879705	-2.723201		6	1.342121	-0.905433	0.105982
	1	-2.798737	-2.528189	-1.193873		1	1.565041	-0.966955	1.173588
	28	-2.049440	-0.179434	-1.290124		6	2.339459	-1.628933	-0.748504
	15	-4.030627	0.692050	-0.795768		6	3.355637	-2.384258	-0.137342
	6	-3.970657	2.412035	-0.135204		6	2.336675	-1.517376	-2.151010
	1	-3.499910	3.063415	-0.877625		6	4.334342	-3.024041	-0.905488
	1	-4.976483	2.781557	0.087756		1	3.393393	-2.454067	0.946666
	1	-3.360574	2.424364	0.770534		6	3.307657	-2.163957	-2.919554
	6	-5.147880	0.859556	-2.253823		1	1.585272	-0.902836	-2.637823
	1	-6.062104	1.409242	-2.011297		6	4.309881	-2.923310	-2.300843
	1	-4.614564	1.403383	-3.039229		1	5.118355	-3.595210	-0.412627
	1	-5.415691	-0.127928	-2.637433		1	3.288817	-2.068591	-4.003316
	6	-5.003784	-0.236010	0.458461		1	5.069044	-3.421296	-2.900247
	6	-4.331316	-1.126876	1.312531		7	0.905551	0.286420	-0.395968
	6	-6.390430	-0.059694	0.614693		16	0.537070	1.488071	0.633693
	6	-5.028517	-1.827360	2.303313		8	0.519137	1.074747	2.064408
	1	-3.258291	-1.274140	1.206222		8	-0.662232	2.202980	0.125829
	6	-7.087989	-0.764302	1.601026		6	1.910843	2.651364	0.454929
	1	-6.940595	0.625414	-0.026576		6	1.907649	3.576284	-0.595080
	6	-6.408829	-1.649408	2.447553		6	2.985957	4.452232	-0.742156
	1	-4.493661	-2.512585	2.957401		6	4.076375	4.421492	0.144869
	1	-8.161157	-0.621363	1.707713		6	4.051996	3.488685	1.194596
	1	-6.953296	-2.197032	3.213862		6	2.980151	2.604386	1.354108
	1	2.461781	0.497362	0.602507		1	2.974896	5.174906	-1.556484
	6	2.392743	-1.465981	1.536461		1	1.065651	3.620571	-1.280458
	6	3.754244	-1.420380	1.883807		1	4.877334	3.454127	1.903714
	6	1.604673	-2.530701	2.012267		1	2.969422	1.896402	2.178371
	6	4.315486	-2.412670	2.692419		6	5.252344	5.354319	-0.041534

	1	4.373603	-0.607584	1.515876		1	5.781045	5.526190	0.900554
	6	2.168697	-3.527135	2.810932		1	5.974728	4.932268	-0.751208
	1	0.548295	-2.564495	1.762430		1	4.935318	6.323493	-0.438699
	6	3.526341	-3.471551	3.156706		28	-2.635796	-0.078118	-0.839234
	1	5.368855	-2.359561	2.959337		15	-3.994698	1.508624	-0.064564
	1	1.548919	-4.345365	3.171932		6	-5.798956	1.156737	-0.212259
	1	3.962651	-4.244967	3.785419		6	-3.812482	3.147206	-0.882251
	16	-0.247820	1.278765	0.700029		1	-2.777163	3.479234	-0.774177
	8	-1.215421	1.474416	1.800193		1	-4.043108	3.058221	-1.947584
	8	-0.884637	1.331020	-0.678983		1	-4.483274	3.887733	-0.433557
	6	0.910900	2.650008	0.720267		6	-3.781173	1.894164	1.720602
	6	1.394234	3.205024	-0.467144		1	-3.992869	1.001578	2.314797
	6	2.296778	4.271067	-0.398211		1	-2.742464	2.186204	1.890236
	6	2.724426	4.786143	0.835243		1	-4.450680	2.702604	2.033386
	6	2.227414	4.200208	2.014327		1	-6.041241	0.237225	0.328613
	6	1.324463	3.138754	1.967255		1	-6.397304	1.977744	0.197318
	1	2.671730	4.704010	-1.323448		1	-6.064788	1.014825	-1.263642
	1	1.075185	2.816496	-1.428454					
	1	2.547269	4.580979	2.982608					
	1	0.939065	2.703894	2.885827					
	6	3.675040	5.959263	0.903320					
	1	4.211967	6.096481	-0.039112					
	1	3.128104	6.886961	1.111680					
	1	4.409955	5.830247	1.703934					
INT2_Ila_trans_L2	6	2.374814	-0.617258	-1.121732	INT2_Ia_cis_L4	6	1.090189	-0.967006	1.089493
	6	3.752747	0.002403	-1.453552		6	1.905812	-0.973298	2.416492
	6	1.373121	0.099888	-2.083122		6	0.716070	-2.447381	0.798761
	1	1.791203	0.012829	-3.093152		1	0.361743	-2.903464	1.725580
	1	1.400851	1.168204	-1.841528		1	1.647655	-2.961849	0.536241
	8	4.378897	0.762862	-0.736948		8	1.749633	-1.814979	3.285734
	6	2.438352	-2.131070	-1.379172		6	-0.164230	-0.119435	1.368095
	8	1.510642	-2.820330	-1.770077		8	-1.342273	-0.409801	1.113425
	8	3.648528	-2.631042	-1.077314		8	0.125246	1.005957	1.999596
	6	3.803348	-4.063894	-1.200747		6	-0.971951	1.898042	2.336267
	1	3.598988	-4.379575	-2.226221		1	-1.678493	1.383159	2.989945
	1	4.840816	-4.264963	-0.935832		1	-0.503549	2.734470	2.851614
	1	3.126136	-4.574035	-0.512540		1	-1.465152	2.235610	1.424989
	8	4.155347	-0.342608	-2.690879		8	2.765861	0.045441	2.530959
	6	5.422752	0.201883	-3.130136		6	3.500221	0.121712	3.778577
	1	6.224990	-0.132349	-2.468543		1	4.103567	-0.777741	3.917273
	1	5.569320	-0.186437	-4.137499		1	4.134933	1.002029	3.683446
	1	5.383287	1.293337	-3.139888		1	2.806494	0.234115	4.614424
	6	-0.066463	-0.365960	-2.181645		6	-0.300572	-2.657692	-0.289346
	1	-0.283212	-1.384272	-1.878190		1	-0.114932	-2.161645	-1.241497
	6	-0.974928	0.303942	-2.978794		6	-1.300531	-3.634097	-0.216510
	6	-2.338975	-0.147359	-3.053012		1	-1.383959	-4.269131	0.666669
	1	-3.027416	0.431510	-3.668497		6	-2.425142	-3.468887	-1.076730
	1	-2.528531	-1.223607	-3.070535		1	-2.274507	-3.126303	-2.102082
	6	2.008124	-0.315721	0.401015		1	-3.298130	-4.100267	-0.926171
	7	0.560357	-0.351550	0.490906		6	1.852140	-0.228955	-0.103468
	16	-0.235847	0.677802	1.337711		1	2.266912	0.679655	0.346262
	8	-0.400266	0.422883	2.798259		6	3.039182	-1.056392	-0.623902
	8	-1.614556	0.797278	0.673847		6	4.312320	-0.930691	-0.043418
	6	0.482636	2.341196	1.225608		6	2.890583	-1.942671	-1.703296
	6	0.272163	3.116204	0.078069		6	5.398564	-1.680122	-0.511825
	6	0.850585	4.383134	-0.013765		1	4.466042	-0.225890	0.768658
	6	1.649094	4.896704	1.024400		6	3.970446	-2.697268	-2.172076
	6	1.850008	4.100788	2.162491		1	1.927325	-2.016145	-2.199053
	6	1.270539	2.831341	2.270715		6	5.231233	-2.574058	-1.574942
	1	0.675802	4.982897	-0.905611		1	6.376815	-1.557152	-0.051043
	1	-0.353356	2.743548	-0.729620		1	3.829860	-3.376114	-3.011142
	1	2.464130	4.474204	2.980054		1	6.073799	-3.156248	-1.942373
	1	1.423283	2.231785	3.163825		7	0.831050	0.061271	-1.112246
	6	2.248835	6.281163	0.922353		16	1.070717	1.318194	-2.050544
	1	3.068717	6.416203	1.633267		8	0.195037	1.170237	-3.249617
	1	2.632149	6.476470	-0.084228		8	2.506240	1.633036	-2.335255
	1	1.494882	7.048498	1.136572		6	0.446905	2.819203	-1.222619
	28	-2.048377	0.332447	-1.204604		6	1.304377	3.610842	-0.451848
	15	-4.191353	0.531152	-0.712341		6	0.806296	4.743205	0.204435
	6	-5.419078	0.684169	-2.078344		6	-0.543045	5.113241	0.095979
	1	-5.393488	-0.210720	-2.705058		6	-1.388550	4.306656	-0.687316
	1	-6.433345	0.815941	-1.689899		6	-0.904999	3.169002	-1.338549
	1	-5.165274	1.550940	-2.695807		1	1.484437	5.350958	0.801498
	6	-4.534500	2.029384	0.305429		1	2.358232	3.357161	-0.376806
	1	-5.579414	2.064824	0.628233		1	-2.439107	4.573923	-0.793820
	1	-3.877016	2.020359	1.176613		1	-1.568832	2.563310	-1.949746
	1	-4.314951	2.921589	-0.288887		6	-1.070627	6.359472	0.772325
	6	2.691527	-1.234523	1.420429		1	-2.072074	6.197923	1.184240
	6	3.916701	-0.876483	2.002576		1	-0.414784	6.682081	1.586148
	6	2.084676	-2.435790	1.821817		1	-1.144304	7.190153	0.059558
	6	4.530414	-1.704740	2.950684		28	-2.138604	-1.829269	0.004308
	1	4.395479	0.055077	1.712348		15	-4.234661	-1.070754	-0.079502
	6	2.698601	-3.270127	2.760733		6	-5.453283	-2.097003	0.845848

	1	1.116972	-2.705002	1.407243		6	-4.966447	-0.946981	-1.764470
	6	3.926851	-2.908827	3.329857		1	-4.361860	-0.275779	-2.381029
	1	5.477473	-1.405826	3.396021		1	-4.976306	-1.932653	-2.237434
	1	2.213260	-4.197821	3.058397		1	-5.991133	-0.563659	-1.718377
	1	4.401200	-3.552922	4.067559		6	-4.481286	0.614128	0.620021
	1	2.405484	0.693988	0.560904		1	-4.162328	0.626778	1.665466
	1	-0.710170	1.280083	-3.389586		1	-3.872985	1.334184	0.066043
	6	-4.819786	-0.876967	0.291696		1	-5.532930	0.913473	0.561787
	6	-3.954589	-1.937343	0.607933		1	-5.473570	-3.109796	0.434200
	6	-6.150573	-0.923497	0.746554		1	-5.159178	-2.159241	1.897428
	6	-4.409850	-3.025954	1.361284		1	-6.457703	-1.665603	0.780842
	1	-2.920575	-1.910893	0.271417					
	6	-6.604287	-2.009970	1.500043					
	1	-6.845143	-0.116449	0.520505					
	6	-5.734792	-3.064471	1.807899					
	1	-3.728546	-3.840048	1.599020					
	1	-7.635497	-2.033188	1.845811					
	1	-6.089706	-3.909781	2.393639					
TS3_Ila_trans_L2	6	2.746345	-0.365347	-1.294049	TS3_Ia_cis_L4	6	-0.416145	-1.548605	-0.697301
	6	1.501067	0.001575	-2.131167		6	0.712651	-2.069439	0.209294
	6	0.247450	-0.671528	-1.641885		1	-0.069727	-1.520985	-1.732085
	6	2.334271	-0.233024	0.243077		1	-1.246409	-2.265803	-0.662637
	7	0.867048	-0.339490	0.279188		6	0.134385	-2.346121	1.617573
	6	3.884960	0.573862	-1.735611		8	-1.018858	-2.709906	1.794916
	1	1.660967	-0.295201	-3.173647		8	1.016460	-2.181125	2.606831
	1	1.360756	1.087260	-2.125856		6	0.539902	-2.474664	3.943040
	8	4.185620	0.712994	-2.910208		1	-0.290817	-1.813718	4.197847
	6	3.204667	-1.799595	-1.631381		1	0.219475	-3.516778	4.006668
	8	2.472248	-2.683958	-2.038553		1	1.391436	-2.291373	4.597111
	8	4.517599	-1.960754	-1.411534		6	1.211308	-3.418446	-0.340395
	6	5.048461	-3.291645	-1.627570		8	0.925241	-3.865957	-1.436571
	1	4.887011	-3.598028	-2.663209		8	2.011461	-4.048117	0.537071
	1	6.112912	-3.214638	-1.409536		6	2.562130	-5.316663	0.103994
	1	4.565724	-3.997535	-0.948886		1	3.164611	-5.668860	0.940573
	8	4.489756	1.226106	-0.734043		1	1.757194	-6.021281	-0.115726
	6	5.570133	2.116941	-1.112545		1	3.181045	-5.172816	-0.784135
	1	6.360009	1.554279	-1.614150		6	-0.935605	-0.198609	-0.280955
	1	5.196102	2.900830	-1.774116		6	-1.452057	0.711025	-1.216898
	1	5.932168	2.541515	-0.177009		1	-1.180238	-0.046663	0.767182
	1	0.330696	-1.742864	-1.493227		6	-2.424880	1.683435	-0.816903
	6	-1.031545	-0.204725	-2.034254		1	-1.192452	0.596365	-2.269577
	1	-1.103834	0.821217	-2.399039		1	-2.805159	2.385634	-1.558301
	6	-2.165319	-1.102291	-2.225964		1	-2.419349	2.060019	0.208301
	1	-2.949757	-0.761256	-2.904277		7	1.210564	0.314938	0.303746
	1	-1.961747	-2.173458	-2.318907		16	1.408799	1.248558	1.586943
	16	0.113746	0.576917	1.360236		8	2.644294	0.926293	2.367392
	8	0.556487	0.336328	2.752531		8	0.173626	1.371314	2.419475
	8	-1.364287	0.390878	1.143704		6	1.661302	2.895747	0.877687
	6	0.424999	2.329010	1.041281		6	2.575934	3.066161	-0.168323
	6	-0.280130	2.975815	0.017844		6	1.000942	3.998217	1.422483
	6	-0.018428	4.319485	-0.248452		6	2.824683	4.346724	-0.664117
	6	0.942723	5.036303	0.489383		1	3.076536	2.203192	-0.598912
	6	1.632853	4.365981	1.510087		6	1.257242	5.277977	0.913702
	6	1.378333	3.019001	1.794446		1	0.289678	3.857300	2.231115
	1	-0.573970	4.821291	-1.039078		6	2.169751	5.474074	-0.133342
	1	-1.036414	2.440906	-0.550051		1	3.536672	4.472506	-1.478480
	1	2.376772	4.899170	2.099036		1	0.736417	6.132731	1.341839
	1	1.905653	2.517941	2.601357		6	2.431883	6.852867	-0.697799
	6	1.200846	6.496947	0.196317		1	2.036424	7.635522	-0.044330
	1	2.086269	6.861734	0.723762		1	3.504057	7.030403	-0.832438
	1	1.347331	6.666232	-0.875647		1	1.959372	6.970279	-1.680569
	1	0.348748	7.113203	0.506887		6	1.872586	-0.980746	0.243540
	6	3.026945	-1.227667	1.175847		28	-3.255689	-0.050740	-0.784418
	6	4.205195	-0.864094	1.843826		1	2.472250	-1.180983	1.133924
	6	2.502706	-2.512481	1.384397		6	2.806069	-1.077455	-0.965763
	6	4.854111	-1.766665	2.694274		6	3.989662	-1.827807	-0.874288
	1	4.619620	0.130963	1.700530		6	2.527355	-0.413905	-2.171405
	6	3.151949	-3.419324	2.228149		6	4.862589	-1.932718	-1.964023
	1	1.573382	-2.796144	0.897873		1	4.239748	-2.325978	0.060719
	6	4.331973	-3.050821	2.886566		6	3.393439	-0.520588	-3.264578
	1	5.763893	-1.464927	3.209460		1	1.642112	0.211750	-2.242594
	1	2.731280	-4.411504	2.379754		6	4.563885	-1.284025	-3.167402
	1	4.833294	-3.753732	3.548700		1	5.778073	-2.513273	-1.868940
	1	2.662575	0.769571	0.532498		1	3.159813	0.000659	-4.190950
	28	-2.220384	-0.544367	-0.428934		1	5.240933	-1.361351	-4.015573
	15	-4.023317	-1.434613	0.388222		15	-5.450649	0.019237	-0.509945
	6	-4.094988	-1.588123	2.231441		6	-6.323440	-1.604386	-0.412707
	1	-3.255643	-2.205633	2.565789		6	-6.352844	0.903244	-1.853177
	1	-3.988379	-0.597382	2.680848		1	-7.429188	0.928805	-1.652519
	1	-5.029924	-2.041413	2.575566		1	-5.980108	1.928219	-1.932923
	6	-4.360685	-3.171572	-0.149184		1	-6.178472	0.399254	-2.807925
	1	-3.513403	-3.801347	0.139183		6	-6.006908	0.889674	1.017085
	1	-5.271493	-3.576640	0.302953		1	-5.622307	1.913372	1.017423

	1	-4.457354	-3.202383	-1.237507		1	-7.100133	0.918373	1.076510
	6	-5.586261	-0.543414	-0.025104		1	-5.613741	0.374884	1.898185
	6	-5.511579	0.642196	-0.775165		1	-7.401832	-1.461316	-0.286541
	6	-6.849427	-1.002497	0.391477		1	-6.145114	-2.176702	-1.327655
	6	-6.671244	1.356068	-1.102186		1	-5.939235	-2.180536	0.433957
	1	-4.540119	1.005644	-1.104947					
	6	-8.008467	-0.291962	0.064404					
	1	-6.942649	-1.916724	0.974928					
	6	-7.921890	0.889967	-0.683315					
	1	-6.596131	2.273011	-1.683047					
	1	-8.978156	-0.659941	0.393216					
	1	-8.824470	1.442221	-0.936554					
COM1_I_L3	6	-4.204730	-1.068233	-2.061891	TS2_Ia_trans_L4	6	0.505236	-2.263997	-0.299680
	6	-3.436708	0.125229	0.159785		6	1.515543	-3.368856	-0.189648
	6	-3.904425	-1.123225	-0.597661		6	-0.358475	-2.545535	-1.553440
	1	-3.762630	0.193924	1.192839		1	-0.864808	-3.510041	-1.420205
	1	-3.470740	1.052430	-0.401814		1	0.340114	-2.690215	-2.383840
	8	-4.282660	-2.045151	-2.792498		8	1.842020	-4.050568	-1.161646
	6	-4.605319	-2.137948	0.238701		6	-0.232259	-1.826544	0.896839
	8	-4.303887	-2.379992	1.402769		8	-1.377627	-1.320832	0.896499
	8	-5.641142	-2.736714	-0.384602		8	0.424212	-1.889654	2.056188
	6	-6.371366	-3.709169	0.398548		6	-0.247472	-1.357366	3.220448
	1	-6.808822	-3.237583	1.281572		1	-1.164646	-1.915728	3.421612
	1	-7.153176	-4.081975	-0.263054		1	0.462134	-1.486730	4.037644
	1	-5.711661	-4.523010	0.708000		1	-0.479575	-0.301174	3.075184
	6	3.194328	0.982644	0.822951		8	2.067826	-3.565814	1.022422
	6	2.093751	1.625452	1.685909		6	3.089394	-4.584317	1.085192
	28	0.429539	-0.200270	-0.420743		1	3.925410	-4.324895	0.432497
	15	0.488654	1.686490	0.710952		1	3.410770	-4.601852	2.126947
	15	2.535126	-0.595278	0.053125		1	2.683415	-5.556389	0.794092
	1	1.910560	1.015371	2.576964		6	-1.371205	-1.508209	-1.949372
	1	2.399859	2.618796	2.030108		1	-0.988790	-0.549301	-2.297549
	1	3.463605	1.657268	0.001931		6	-2.708760	-1.817172	-2.240356
	1	4.096116	0.807202	1.419342		1	-3.071851	-2.840679	-2.138210
	8	-4.328916	0.197805	-2.521959		6	-3.631774	-0.731965	-2.244850
	6	-4.508406	0.336394	-3.949884		1	-4.696472	-0.949046	-2.297062
	1	-4.556070	1.409842	-4.132701		1	-3.334827	0.229408	-2.665853
	1	-3.665675	-0.107413	-4.484932		6	1.571574	-0.536508	-0.653755
	1	-5.435959	-0.147262	-4.264754		7	1.021008	0.543851	-0.009530
	6	-1.339309	-0.597096	-1.219336		16	0.082398	1.569896	-0.830030
	6	-0.367681	-1.581727	-1.567954		8	-1.313973	1.600197	-0.303044
	6	-2.382924	-0.856100	-0.188856		8	0.186007	1.419605	-2.313627
	1	-2.097282	-1.536552	0.609333		6	0.795284	3.173238	-0.405140
	1	-1.595958	0.162347	-1.959840		6	0.283327	3.903229	0.669839
	1	-0.407346	-2.568546	-1.103499		6	0.856074	5.137557	0.996524
	1	0.054020	-1.582361	-2.573673		6	1.934044	5.656518	0.262310
	6	2.800773	-1.845271	1.394264		6	2.424967	4.904603	-0.820537
	6	4.074558	-2.146793	1.908764		6	1.866747	3.669538	-1.155991
	6	1.680914	-2.507293	1.924128		1	0.450280	5.705134	1.832112
	6	4.222674	-3.084672	2.934907		1	-0.560548	3.519345	1.235934
	1	4.959274	-1.656900	1.506490		1	3.252564	5.291273	-1.413054
	6	1.827337	-3.446301	2.953324		1	2.252217	3.103984	-2.000361
	1	0.692955	-2.287409	1.523791		6	2.566769	6.979608	0.632157
	6	3.098299	-3.736256	3.460641		1	2.818085	7.564654	-0.258280
	1	5.214175	-3.309673	3.322714		1	1.902657	7.580285	1.260007
	1	0.950564	-3.950819	3.354230		1	3.497919	6.823271	1.190514
	1	3.215206	-4.467165	4.258119		28	-2.640123	-0.813469	-0.522777
	6	3.807227	-1.063329	-1.199463		6	2.976523	-0.857644	-0.246998
	6	5.058070	-0.435285	-1.326135		6	3.848427	-1.444490	-1.179728
	6	3.484330	-2.109372	-2.084622		6	3.472414	-0.519462	1.024194
	6	5.965416	-0.846403	-2.311200		6	5.185790	-1.692096	-0.850662
	1	5.342097	0.376166	-0.661474		1	3.483031	-1.700829	-2.172083
	6	4.393823	-2.527408	-3.060081		6	4.804420	-0.773870	1.356455
	1	2.513514	-2.594695	-2.011684		1	2.807293	-0.049214	1.741662
	6	5.638324	-1.894276	-3.178235		6	5.667969	-1.361007	0.420539
	1	6.928645	-0.347439	-2.396463		1	5.849966	-2.137543	-1.588448
	1	4.128685	-3.340480	-3.732858		1	5.175322	-0.508597	2.344595
	1	6.344701	-2.213374	-3.941683		1	6.707708	-1.551456	0.678565
	6	-0.760562	2.173129	1.981614		1	1.429156	-0.603712	-1.735903
	6	-0.896145	1.384531	3.140417		15	-4.228074	0.112586	0.742257
	6	-1.665322	3.230242	1.781992		6	-3.711102	0.502898	2.465502
	6	-1.888299	1.663330	4.085026		1	-4.522846	0.978971	3.025668
	1	-0.232147	0.539518	3.312656		1	-3.413997	-0.417209	2.974947
	6	-2.663050	3.505465	2.724867		1	-2.848409	1.173413	2.435927
	1	-1.597505	3.847598	0.890193		6	-4.858585	1.724663	0.116324
	6	-2.776500	2.727145	3.881769		1	-5.328376	1.583456	-0.861004
	1	-1.970299	1.045245	4.976826		1	-5.591356	2.158816	0.804827
	1	-3.350765	4.331040	2.552450		1	-4.016855	2.411902	-0.002223
	1	-3.550469	2.943077	4.615197		6	-5.761089	-0.883538	0.980994
	6	0.707061	3.195553	-0.330605		1	-5.509443	-1.839167	1.450174
	6	1.114862	4.436626	0.192709		1	-6.483227	-0.355945	1.613401
	6	0.486480	3.084123	-1.713588		1	-6.223270	-1.090271	0.011534
	6	1.294970	5.538493	-0.648441					

	1	1.286048	4.553413	1.261043					
	6	0.665274	4.187228	-2.557874					
	1	0.174786	2.126812	-2.126530					
	6	1.070495	5.416096	-2.026588					
	1	1.609274	6.492195	-0.229359					
	1	0.490712	4.084471	-3.626903					
	1	1.211433	6.274599	-2.680005					
TS1_I_L3	6	-4.075219	-0.944051	-0.770628	INT2_Ia_trans_L4	6	0.471011	-0.161166	0.848727
	6	-3.396373	0.269186	-0.143915		6	1.637380	-0.252380	1.872529
	6	-2.277709	-0.651499	-0.378429		6	0.436222	-1.533580	0.107972
	6	-4.361756	-0.980766	-2.208553		1	0.374840	-2.332201	0.851258
	1	-3.680672	0.440941	0.890946		1	1.401895	-1.623797	-0.397625
	1	-3.414878	1.165333	-0.756528		8	2.025540	-1.307634	2.345738
	8	-4.799588	-1.927850	-2.859324		6	-0.814355	0.007741	1.653352
	6	-4.627216	-1.910185	0.183239		8	-1.949845	-0.323142	1.280061
	8	-4.400761	-1.859947	1.397757		8	-0.638092	0.562592	2.844134
	8	-5.418664	-2.877199	-0.347609		6	-1.816264	0.784280	3.666991
	6	-5.966565	-3.817099	0.600316		1	-1.436955	1.229690	4.585224
	1	-6.592198	-3.306569	1.336934		1	-2.497740	1.466170	3.155901
	1	-6.567082	-4.506781	0.005936		1	-2.311444	-0.166620	3.870954
	1	-5.168995	-4.356570	1.117488		8	2.155613	0.936142	2.206819
	6	3.194572	0.830914	0.935329		6	3.186035	0.918554	3.224973
	6	2.110731	1.492891	1.803167		1	4.034883	0.320012	2.890341
	28	0.417167	-0.161896	-0.422179		1	3.475998	1.960453	3.356893
	15	0.534056	1.679132	0.802687		1	2.784028	0.508558	4.154221
	15	2.478907	-0.687908	0.096362		6	-0.653452	-1.673251	-0.912169
	1	1.878663	0.859284	2.665756		1	-0.616042	-0.965976	-1.739189
	1	2.456235	2.456310	2.191690		6	-1.477232	-2.796553	-1.042804
	1	3.521421	1.521761	0.151275		1	-1.382172	-3.635502	-0.352119
	1	4.075229	0.579114	1.534926		6	-2.679855	-2.618239	-1.791518
	8	-4.049828	0.205037	-2.816196		1	-2.660766	-2.018411	-2.702819
	6	-4.216466	0.238384	-4.246763		1	-3.428648	-3.407338	-1.777341
	1	-3.891823	1.233347	-4.553768		6	0.679899	1.108155	-0.166092
	1	-3.602092	-0.527126	-4.727384		7	1.285489	0.664708	-1.403887
	1	-5.263893	0.081474	-4.517129		16	2.710932	1.240773	-1.782191
	6	-1.284124	-0.524411	-1.419735		8	3.012698	2.593602	-1.213700
	6	-0.278212	-1.518185	-1.646874		8	2.877812	1.117564	-3.260610
	1	-2.092992	-1.381342	0.405206		6	4.009863	0.159257	-1.098018
	1	-1.459414	0.242353	-2.172699		6	4.088161	-1.175265	-1.523898
	1	-0.379112	-2.496784	-1.174637		6	5.067684	-2.016697	-0.996521
	1	0.222415	-1.545653	-2.614474		6	5.988338	-1.553305	-0.036835
	6	-0.731635	2.151463	2.058481		6	5.896030	-0.215994	0.372834
	6	-1.588750	3.251005	1.880256		6	4.915535	0.638961	-0.150220
	6	-0.928504	1.318249	3.176384		1	5.121061	-3.049761	-1.337556
	6	-2.601051	3.524112	2.807894		1	3.392110	-1.551729	-2.270023
	1	-1.472325	3.902625	1.018401		1	6.600325	0.171923	1.107198
	6	-1.935785	1.595175	4.105280		1	4.859492	1.675563	0.169430
	1	-0.301971	0.441517	3.329086		6	7.039660	-2.481207	0.531174
	6	-2.776091	2.701216	3.925494		1	6.579943	-3.289749	1.111726
	1	-3.251879	4.382510	2.654224		1	7.626649	-2.951430	-0.265672
	1	-2.067087	0.942881	4.966153		1	7.730630	-1.948009	1.190054
	1	-3.561646	2.915411	4.646945		28	-2.580732	-1.298919	-0.315542
	6	0.840965	3.215063	-0.169847		1	1.325474	1.789266	0.390649
	6	1.294478	4.411090	0.417065		6	-0.611405	1.902726	-0.411799
	6	0.640018	3.174779	-1.559574		6	-1.014966	2.865660	0.529131
	6	1.539056	5.539590	-0.370382		6	-1.380535	1.749832	-1.574829
	1	1.450841	4.472310	1.492254		6	-2.170978	3.630125	0.332735
6	0.883844	4.305187	-2.349584	1	-0.409599	3.037848	1.417870		
1	0.291730	2.253366	-2.022002	6	-2.538137	2.510432	-1.775682		
6	1.334390	5.488889	-1.756150	1	-1.041907	1.067993	-2.348609		
1	1.888006	6.458303	0.096504	6	-2.944446	3.449510	-0.819666		
1	0.723758	4.258594	-3.424694	1	-2.457127	4.376012	1.071671		
1	1.525747	6.368313	-2.367492	1	-3.114051	2.381966	-2.690528		
6	3.727401	-1.129360	-1.186754	1	-3.839500	4.046770	-0.980569		
6	4.157709	-2.455147	-1.371388	15	-4.766580	-0.889751	-0.140789		
6	4.173718	-0.145175	-2.089246	6	-5.766163	-2.308369	0.476268		
6	5.029235	-2.783689	-2.416196	6	-5.608118	-0.416688	-1.707985		
1	3.818854	-3.239609	-0.699755	1	-5.146011	0.486641	-2.115118		
6	5.049171	-0.473331	-3.128954	1	-5.502550	-1.219649	-2.442579		
1	3.839032	0.885704	-1.993649	1	-6.673110	-0.227402	-1.537376		
6	5.482054	-1.794623	-3.296117	6	-5.198343	0.476210	1.014165		
1	5.354147	-3.814831	-2.539303	1	-4.851024	0.225056	2.019801		
1	5.388948	0.303755	-3.810514	1	-4.698693	1.395251	0.696670		
1	6.161888	-2.050233	-4.106004	1	-6.280503	0.641876	1.039970		
6	2.652022	-1.991494	1.389069	1	-6.823308	-2.035087	0.560170		
6	3.871634	-2.249444	2.042564	1	-5.670742	-3.155213	-0.208842		
6	1.516122	-2.731816	1.755237	1	-5.398815	-2.618003	1.458792		
6	3.949951	-3.226493	3.038630						
1	4.768952	-1.696462	1.771705						
6	1.593505	-3.711587	2.753104						
1	0.568795	-2.538856	1.256726						
6	2.810190	-3.959906	3.396453						
1	4.899409	-3.416737	3.534731						



	1	0.704797	-4.276761	3.025855					
	1	2.872947	-4.720068	4.172312					
INT1_I_L3	6	-4.207526	-2.660392	1.367601	TS3_Ia_trans_L4	6	1.167980	0.687346	-1.078986
	6	-2.805225	-0.808753	0.286242		6	-0.019218	1.556145	-0.598802
	6	-3.944480	-1.264694	1.195221		1	0.988360	0.379194	-2.114509
	1	-3.071678	0.133830	-0.197166		1	2.072952	1.310145	-1.085617
	1	-2.642234	-1.549210	-0.498990		6	0.335726	2.274781	0.713219
	8	-5.084191	-3.224002	2.048998		8	1.131524	1.858344	1.539062
	6	-4.700232	-0.298845	1.932561		8	-0.350834	3.418159	0.854970
	8	-5.645945	-0.466744	2.725053		6	-0.140487	4.148442	2.087057
	8	-4.259836	1.004678	1.683237		1	-0.457279	3.542058	2.938033
	6	-4.966061	2.037540	2.380343		1	0.912952	4.417077	2.191510
	1	-4.872791	1.922622	3.465003		1	-0.759168	5.040930	2.001095
	1	-4.502574	2.974050	2.062996		6	-0.272103	2.611533	-1.693275
	1	-6.029214	2.041161	2.119881		8	-1.259152	2.681219	-2.402345
	6	1.631501	2.051687	-1.599111		8	0.791057	3.428074	-1.818121
	6	2.847302	1.146177	-1.352190		6	0.694423	4.458687	-2.831319
	28	0.463821	-0.253972	0.380677		1	1.635705	5.004566	-2.777313
	15	2.628787	0.149258	0.209743		1	0.566144	4.008080	-3.817832
	15	0.054488	1.080165	-1.351173		1	-0.147306	5.120109	-2.614803
	1	2.938800	0.408845	-2.157402		6	1.428250	-0.536544	-0.242290
	1	3.780646	1.718763	-1.336761		6	2.069731	-1.660674	-0.794280
	1	1.609312	2.884398	-0.889315		1	1.450845	-0.406912	0.832904
	1	1.666757	2.486561	-2.603031		6	2.855432	-2.526245	0.030692
	8	-3.320964	-3.457127	0.631871		1	2.037301	-1.813172	-1.872947
	6	-3.527896	-4.869866	0.737003		1	3.315591	-3.407217	-0.416109
	1	-2.757056	-5.328271	0.113155		1	2.610340	-2.629182	1.090095
	1	-3.422822	-5.213866	1.770700		7	-0.801226	-0.696220	0.049296
	1	-4.519367	-5.157226	0.372603		16	-1.370503	-1.980526	-0.744792
	6	-0.636965	-1.655787	1.371257		8	-0.729927	-3.182514	-0.152203
	6	0.577681	-1.380496	2.045190		8	-1.278775	-1.860354	-2.231970
	6	-1.527256	-0.611549	1.077702		6	-3.144785	-2.132553	-0.397105
	1	-0.758620	-2.603565	0.847615		6	-3.560767	-2.504147	0.888236
	1	0.604825	-0.605523	2.812937		6	-4.085234	-1.894809	-1.400682
	1	1.315312	-2.170607	2.158648		6	-4.921807	-2.643957	1.157171
	1	-1.520640	0.260399	1.737815		1	-2.826679	-2.690808	1.667765
	6	3.335152	1.146997	1.581726		6	-5.449735	-2.035156	-1.116005
	6	3.617581	2.516931	1.455307		1	-3.754779	-1.615240	-2.396857
	6	3.550310	0.519621	2.823839		6	-5.889727	-2.410907	0.161223
	6	4.107290	3.244323	2.547069		1	-5.239101	-2.939746	2.156126
	1	3.471530	3.035851	0.512126		1	-6.177382	-1.853079	-1.904962
	6	4.044551	1.245713	3.909511		6	-7.362228	-2.560936	0.473271
	1	3.350523	-0.542566	2.945090		1	-7.978175	-2.413528	-0.418075
	6	4.321436	2.612520	3.775631		1	-7.582274	-3.555788	0.876439
	1	4.323752	4.303957	2.430827		1	-7.681087	-1.831055	1.226544
	1	4.213353	0.743671	4.859652		6	-1.283247	0.603901	-0.431308
	1	4.703965	3.178379	4.622191		28	3.813230	-0.874475	-0.186980
	6	3.780065	-1.263143	0.003761		15	5.890820	-0.894532	0.566279
	6	5.172783	-1.094891	0.101776		6	6.876132	0.647779	0.321580
	6	3.259091	-2.526830	-0.318675		6	6.955797	-2.196557	-0.189666
	6	6.028313	-2.177408	-0.120701		1	7.964416	-2.176295	0.236709
	1	5.593297	-0.124685	0.357522		1	6.512940	-3.180632	-0.012685
	6	4.118067	-3.608558	-0.543256		1	7.020317	-2.038696	-1.269877
	1	2.182758	-2.668386	-0.394084		6	6.057390	-1.214503	2.374984
	6	5.502837	-3.435389	-0.443656		1	5.587641	-2.170213	2.623772
	1	7.104340	-2.039090	-0.040629		1	7.110652	-1.245201	2.673848
	1	3.704583	-4.583815	-0.790432		1	5.548822	-0.425825	2.936537
	1	6.170987	-4.276906	-0.613718		1	-1.691135	0.542675	-1.445957
	6	-1.248044	2.373285	-1.289897		6	-2.371496	1.184509	0.477041
	6	-1.158371	3.363121	-0.293103		6	-3.421783	1.940040	-0.064020
	6	-2.347756	2.381193	-2.163045		6	-2.344429	0.969079	1.864070
	6	-2.135545	4.356385	-0.191808		6	-4.413936	2.483341	0.761266
	1	-0.331301	3.363438	0.415010		1	-3.462991	2.108074	-1.137154
	6	-3.327704	3.374921	-2.055300		6	-3.327498	1.518287	2.692710
	1	-2.449494	1.617527	-2.928983		1	-1.556888	0.353560	2.290104
	6	-3.222456	4.366591	-1.075001		6	-4.367640	2.280295	2.145085
	1	-2.049984	5.118382	0.579801		1	-5.224387	3.061888	0.321892
	1	-4.173041	3.370081	-2.740008		1	-3.288759	1.342431	3.766192
	1	-3.984009	5.139191	-0.994740		1	-5.137738	2.701500	2.788237
	6	-0.166775	0.170318	-2.928986		1	7.890615	0.531660	0.717516
	6	-0.423549	-1.209972	-2.886357		1	6.935443	0.884436	-0.744708
	6	-0.058838	0.808665	-4.178823		1	6.388410	1.482957	0.832584
	6	-0.573746	-1.941668	-4.069861					
	1	-0.505123	-1.716300	-1.927174					
	6	-0.208062	0.077013	-5.359664					
	1	0.133526	1.877798	-4.240733					
	6	-0.465817	-1.299401	-5.307404					
	1	-0.772028	-3.010087	-4.022296					
	1	-0.123980	0.581224	-6.319838					
	1	-0.580880	-1.866740	-6.228462					
COM1_II_L3	6	3.671198	-0.033320	-2.021345	TS2_IIa_cis_L4	6	-1.051952	-2.277991	-1.013956
	6	2.650916	-2.366323	-2.700296		6	0.356307	-2.821351	-1.222063
	6	3.245174	-1.426114	-1.645784		6	1.416428	-1.852015	-1.703119

	1	2.914802	-3.415356	-2.601423		6	-0.418372	-0.248332	0.647565
	1	2.622950	-1.978963	-3.713014		7	0.506189	0.433925	-0.016274
	8	3.811921	0.878889	-1.223192		6	-1.824747	-3.007493	-0.030929
	6	4.039096	-2.116132	-0.580251		1	0.328478	-3.630520	-1.972438
	8	3.699659	-3.166580	-0.052317		1	0.686147	-3.290953	-0.293149
	8	5.202869	-1.496651	-0.303521		8	-1.389182	-3.958314	0.641489
	6	6.037410	-2.131701	0.694256		6	-1.652528	-1.705805	-2.210616
	1	6.317362	-3.137115	0.371807		8	-1.115710	-1.746005	-3.329018
	1	6.918892	-1.496350	0.777709		8	-2.876423	-1.109635	-2.059178
	1	5.510178	-2.184118	1.649207		6	-3.483377	-0.639551	-3.274966
	6	-1.451214	1.197567	2.165390		1	-2.866168	0.128007	-3.749007
	6	-2.474343	0.062205	1.994719		1	-3.635261	-1.461092	-3.981326
	28	-0.630222	-0.227008	-0.659848		1	-4.448126	-0.223441	-2.977390
	15	-2.659177	-0.337447	0.170591		8	-3.117875	-2.579963	0.158158
	15	0.077699	0.919277	1.086044		6	-3.913398	-3.392850	1.036786
	1	-2.125515	-0.846687	2.495661		1	-3.488320	-3.426776	2.043235
	1	-3.432482	0.332429	2.451459		1	-4.897025	-2.919453	1.058919
	1	-1.890845	2.143098	1.828844		1	-3.999778	-4.414981	0.655418
	1	-1.179056	1.317518	3.219222		1	1.153121	-1.216470	-2.548195
	8	3.861066	0.116922	-3.350257		1	-1.464472	0.040183	0.558746
	6	4.219852	1.446721	-3.792139		6	2.763770	-2.048904	-1.401568
	1	4.306168	1.377587	-4.876334		1	3.036479	-2.825695	-0.685219
	1	3.444039	2.163209	-3.512944		6	3.716480	-1.037597	-1.708184
	1	5.171826	1.748724	-3.349507		1	4.741127	-1.169705	-1.370321
	6	0.699084	-0.730225	-2.065604		1	3.610239	-0.460505	-2.629616
	6	-0.625181	-1.164025	-2.371595		6	-0.113848	-1.077899	1.813997
	6	1.732624	-1.754473	-1.684203		6	-1.172764	-1.348419	2.705550
	1	1.450993	-2.426555	-0.877612		6	1.180839	-1.526865	2.146413
	1	1.077982	0.140529	-2.603938		6	-0.941931	-2.029264	3.901338
	1	-1.203432	-0.625300	-3.123938		1	-2.175956	-1.004623	2.464205
	1	-0.886191	-2.220587	-2.287997		6	1.407080	-2.218768	3.334250
	6	0.716021	2.641133	0.907689		1	2.014815	-1.334046	1.475249
	6	0.692168	3.578251	1.958420		6	0.348251	-2.467761	4.219747
	6	1.196390	3.046748	-0.348002		1	-1.767537	-2.218601	4.583478
	6	1.141563	4.886662	1.756078		1	2.410821	-2.560061	3.577328
	1	0.325044	3.293416	2.941918		1	0.530810	-2.999604	5.150966
	6	1.650116	4.355833	-0.551213		16	-0.044855	1.695378	-1.055422
	1	1.216820	2.331113	-1.165512		8	-0.528073	1.130964	-2.323159
	6	1.622262	5.278811	0.499571		8	1.082870	2.642892	-1.098266
	1	1.116398	5.599254	2.577952		6	-1.421605	2.485988	-0.219973
	1	2.020757	4.653393	-1.529924		6	-1.169801	3.407259	0.804289
	1	1.970680	6.297524	0.342611		6	-2.246748	4.041070	1.422462
	6	1.248468	0.093637	2.259688		6	-3.572432	3.773295	1.032317
	6	2.395270	0.708009	2.789459		6	-3.792658	2.845320	0.002163
	6	0.979655	-1.243176	2.613204		6	-2.726675	2.198793	-0.629761
	6	3.236628	0.013181	3.667920		1	-2.052812	4.759128	2.217074
	1	2.642679	1.730870	2.520365		1	-0.152896	3.638581	1.107159
	6	1.809380	-1.931435	3.502936		1	-4.809109	2.621155	-0.315071
	1	0.124049	-1.758940	2.181040		1	-2.903211	1.479868	-1.422500
	6	2.943250	-1.304276	4.035265		6	-4.725325	4.492038	1.693395
	1	4.121256	0.506396	4.065964		1	-4.574815	4.574825	2.774217
	1	1.578652	-2.961003	3.768763		1	-4.819385	5.511308	1.299623
	1	3.594776	-1.840469	4.721998		1	-5.673819	3.978598	1.515019
	6	-3.647489	-1.898172	0.163749		28	2.299076	-0.228530	-0.587666
	6	-3.187909	-3.006774	0.901235		15	3.695545	1.274763	0.279766
	6	-4.780686	-2.062599	-0.652431		6	2.997398	2.377300	1.577846
	6	-3.858644	-4.232217	0.847571		1	2.550810	1.775497	2.374356
	1	-2.296922	-2.925230	1.520914		1	3.778311	3.014405	2.006471
	6	-5.448132	-3.292061	-0.712105		1	2.223095	3.004051	1.133201
	1	-5.152763	-1.231285	-1.245329		6	5.158407	0.551060	1.142011
	6	-4.993895	-4.380378	0.040459		1	5.781900	1.340885	1.574359
	1	-3.490417	-5.072566	1.432494		1	4.825569	-0.112918	1.945339
	1	-6.325332	-3.395616	-1.347630		1	5.763909	-0.032504	0.444022
	1	-5.514787	-5.334377	-0.003622		6	4.452052	2.442672	-0.924238
	6	-3.840941	0.954191	-0.417324		1	3.657519	2.993994	-1.431717
	6	-5.050928	1.244600	0.240069		1	5.120139	3.147228	-0.417583
	6	-3.495866	1.697372	-1.558417		1	5.024499	1.885004	-1.670754
	6	-5.892865	2.254919	-0.233623					
	1	-5.347712	0.678231	1.120604					
	6	-4.339331	2.708315	-2.036273					
	1	-2.561798	1.480055	-2.072262					
	6	-5.538559	2.989686	-1.373608					
	1	-6.825418	2.468224	0.284745					
	1	-4.057711	3.274624	-2.921559					
	1	-6.194893	3.775808	-1.740999					
TS1_II_L3	6	3.335864	-1.207229	-2.089580	INT2_IIa_cis_L4	6	1.442069	-1.380133	0.768907
	6	2.631110	-1.439169	-3.418568		6	0.617007	-2.595465	0.244704
	6	1.407772	-1.507202	-2.609918		6	-0.872450	-2.657751	0.496482
	6	3.670388	0.148837	-1.673924		6	1.689600	-0.268353	-0.372155
	1	2.924711	-2.379607	-3.883439		7	0.560062	-0.107801	-1.283614
	1	2.688544	-0.596855	-4.102706		6	2.825363	-1.906987	1.227216
	8	4.286685	0.497306	-0.665743		1	1.034495	-3.493951	0.710443
	6	3.829251	-2.411952	-1.437617		1	0.808407	-2.692397	-0.824543

	8	3.577580	-3.555857	-1.846825		8	3.284936	-3.002234	0.959546
	8	4.609234	-2.218895	-0.338319		6	0.822550	-0.805837	2.061664
	6	5.112148	-3.419533	0.278498		8	0.336655	-1.520602	2.926927
	1	5.750227	-3.975925	-0.413661		8	0.937451	0.520025	2.187064
	1	5.692886	-3.080345	1.137403		6	0.427939	1.088444	3.414622
	1	4.293375	-4.065127	0.606432		1	-0.642941	0.893963	3.501685
	6	-1.267742	1.515621	1.998253		1	0.952805	0.662233	4.272666
	6	-2.312662	0.390022	1.987568		1	0.618894	2.158030	3.337312
	28	-0.590692	-0.091925	-0.739922		8	3.478121	-0.993228	1.970105
	15	-2.548006	-0.172069	0.220302		6	4.801995	-1.366044	2.423170
	15	0.260687	0.986893	1.037661		1	5.455499	-1.541399	1.565972
	1	-1.953169	-0.459778	2.576197		1	5.155106	-0.518020	3.009231
	1	-3.257797	0.722664	2.428962		1	4.750069	-2.265874	3.039967
	1	-1.665866	2.409900	1.506902		1	-1.173382	-2.656201	1.544633
	1	-1.007345	1.798425	3.023122		1	1.918291	0.653540	0.169882
	8	3.220303	1.079548	-2.576563		6	-1.765896	-3.178853	-0.435423
	6	3.524529	2.451908	-2.265637		1	-1.436691	-3.336449	-1.463335
	1	3.067856	3.037615	-3.065062		6	-3.163323	-3.147043	-0.137210
	1	3.106747	2.736302	-1.298936		1	-3.865345	-3.427430	-0.920135
	1	4.606486	2.612848	-2.253262		1	-3.496660	-3.384571	0.875066
	6	0.369224	-0.527789	-2.540156		6	2.920156	-0.580749	-1.230636
	6	-0.997308	-0.992552	-2.366021		6	4.145818	0.042077	-0.947080
	1	1.214256	-2.474250	-2.149334		6	2.856463	-1.456726	-2.327277
	1	0.533539	0.389369	-3.104086		6	5.285268	-0.219818	-1.718175
	1	-1.762798	-0.518322	-2.981996		1	4.211438	0.746951	-0.120663
	1	-1.164234	-2.063886	-2.233554		6	3.993037	-1.727111	-3.095463
	6	1.092240	-0.127680	2.248023		1	1.907200	-1.909295	-2.598321
	6	1.309610	0.226355	3.593108		6	5.215381	-1.113271	-2.792089
	6	1.453970	-1.415495	1.819956		1	6.222743	0.280165	-1.482867
	6	1.878901	-0.686788	4.484730		1	3.922906	-2.410647	-3.939413
	1	1.039762	1.216737	3.953650		1	6.097879	-1.319283	-3.394216
	6	2.019646	-2.332730	2.713599		16	-0.651841	0.798884	-0.916486
	1	1.290804	-1.698788	0.782073		8	-1.460622	0.352349	0.320328
	6	2.232986	-1.970305	4.047114		8	-1.539643	0.939590	-2.104887
	1	2.043311	-0.398369	5.520838		6	-0.126461	2.466618	-0.443441
	1	2.288530	-3.328588	2.368304		6	0.861170	3.087270	-1.216674
	1	2.671616	-2.681760	4.743672		6	1.244635	4.397787	-0.921444
	6	1.230174	2.558332	1.025113		6	0.654695	5.106833	0.138926
	6	2.502438	2.691231	1.603204		6	-0.335283	4.462275	0.899041
	6	0.671510	3.666597	0.359228		6	-0.726508	3.149763	0.617718
	6	3.187305	3.911063	1.542751		1	2.012393	4.875197	-1.527971
	1	2.972760	1.845368	2.095477		1	1.328299	2.552847	-2.040537
	6	1.353913	4.884910	0.302226		1	-0.809819	4.991036	1.724136
	1	-0.300300	3.584071	-0.125026		1	-1.488657	2.659678	1.214793
	6	2.614905	5.012906	0.899070		6	1.095546	6.515124	0.469901
	1	4.172207	3.995286	1.997432		1	0.291321	7.085418	0.943996
	1	0.903196	5.731118	-0.212147		1	1.943402	6.503590	1.165998
	1	3.148196	5.960078	0.854396		1	1.417130	7.054628	-0.426006
	6	-3.765226	1.050994	-0.430411		28	-2.458827	-1.317703	0.001445
	6	-5.033799	1.218141	0.155940		15	-4.427049	-0.360471	-0.322870
	6	-3.401372	1.872493	-1.509495		6	-4.484795	1.436321	0.062820
	6	-5.917472	2.185011	-0.330237		1	-3.743890	1.953488	-0.550108
	1	-5.340871	0.588888	0.989194		1	-5.480029	1.846049	-0.140128
	6	-4.286262	2.842982	-1.996429		1	-4.236375	1.596958	1.115309
	1	-2.423073	1.752666	-1.970099		6	-4.989874	-0.430961	-2.074477
	6	-5.545007	3.000434	-1.408041		1	-5.941435	0.095748	-2.203543
	1	-6.896065	2.302492	0.130519		1	-4.227950	0.034746	-2.704967
	1	-3.990725	3.472396	-2.833149		1	-5.113043	-1.471638	-2.386883
	1	-6.234336	3.752790	-1.785526		6	-5.851850	-1.042585	0.625824
	6	-3.487168	-1.752369	0.318473		1	-6.775411	-0.504369	0.387214
	6	-3.168954	-2.721210	1.287959		1	-5.987316	-2.101329	0.389242
	6	-4.448392	-2.068414	-0.659400		1	-5.656126	-0.952373	1.698385
	6	-3.814313	-3.962437	1.294581					
	1	-2.414410	-2.523032	2.045425					
	6	-5.090112	-3.311132	-0.653540					
	1	-4.706394	-1.343513	-1.427558					
	6	-4.778450	-4.262117	0.325155					
	1	-3.560200	-4.694882	2.057914					
	1	-5.834799	-3.534122	-1.414846					
	1	-5.279744	-5.227548	0.331010					
INT1_II_L3	6	4.418593	0.333925	-1.184435	TS3_IIa_cis_L4	6	2.341956	-0.201959	1.129920
	6	2.229707	0.006314	-2.465575		6	1.478277	-1.319374	1.738564
	6	3.412117	-0.554523	-1.686386		6	0.006246	-1.062681	1.543064
	1	2.384439	-0.148547	-3.548184		6	1.898809	-0.059016	-0.378033
	1	2.186842	1.087559	-2.330317		7	0.469619	-0.366946	-0.323919
	8	5.430271	0.082903	-0.501902		6	3.832614	-0.548509	1.266285
	6	3.575099	-1.972663	-1.722201		1	1.657437	-1.390714	2.816771
	8	2.803273	-2.760255	-2.322825		1	1.763515	-2.278537	1.301799
	8	4.666779	-2.500891	-1.054673		8	4.269709	-1.643102	1.567509
	6	4.812306	-3.924617	-1.154274		6	2.119486	1.135299	1.870928
	1	4.935001	-4.244431	-2.193843		8	1.812554	2.193626	1.357209
	1	5.712296	-4.164733	-0.583323		8	2.331901	0.980236	3.192004
	1	3.950988	-4.448334	-0.727925		6	2.211112	2.172867	4.006654

	6	-1.163969	1.164573	2.135766		1	2.930389	2.926090	3.677932
	6	-2.336210	0.183088	2.014799		1	1.197958	2.574636	3.938497
	28	-0.746939	-0.069465	-0.818905		1	2.429140	1.849638	5.023868
	15	-2.698965	-0.059212	0.203574		8	4.600897	0.525384	1.010685
	15	0.262800	0.588660	1.068044		6	6.034150	0.322116	1.079324
	1	-2.072415	-0.787811	2.446224		1	6.341708	-0.418424	0.338128
	1	-3.220404	0.550601	2.544986		1	6.473619	1.294076	0.858161
	1	-1.450748	2.156439	1.769253		1	6.318786	-0.011996	2.079301
	1	-0.855973	1.286112	3.178472		1	-0.349244	-0.114472	1.947996
	8	4.195425	1.659600	-1.567707		1	2.083615	0.983433	-0.660033
	6	5.194284	2.596354	-1.151134		6	-0.936168	-2.117741	1.550607
	1	4.844405	3.571861	-1.495783		1	-0.573980	-3.101022	1.246811
	1	5.305957	2.607485	-0.064212		6	-2.246237	-2.028869	2.187996
	1	6.164976	2.367177	-1.604102		1	-2.682577	-2.973194	2.519467
	6	-0.292227	-0.132624	-2.817068		1	-2.417660	-1.214416	2.899565
	6	-1.545929	-0.733410	-2.527404		6	2.699417	-0.959910	-1.321686
	6	0.864085	-0.593573	-2.181627		6	3.815941	-0.437138	-1.992283
	1	0.862610	-1.626863	-1.836037		6	2.360540	-2.305293	-1.529125
	1	-0.266433	0.828193	-3.335244		6	4.587195	-1.241763	-2.839047
	1	-2.453041	-0.303828	-2.945042		1	4.080716	0.610708	-1.861471
	1	-1.594476	-1.806401	-2.335858		6	3.130072	-3.113778	-2.371357
	6	1.048755	-0.731464	2.074192		1	1.475167	-2.715582	-1.050599
	6	1.213025	-0.616459	3.468028		6	4.249324	-2.586598	-3.028024
	6	1.466005	-1.911565	1.436364		1	5.445100	-0.816149	-3.355696
	6	1.786945	-1.657692	4.202456		1	2.851493	-4.154850	-2.522306
	1	0.900137	0.282323	3.994067		1	4.844399	-3.214416	-3.687919
	6	2.039688	-2.953439	2.173103		16	-0.506881	0.114528	-1.483063
	1	1.349825	-2.017985	0.362600		8	-1.813840	-0.613876	-1.292022
	6	2.200786	-2.829478	3.556562		8	0.060023	-0.011261	-2.844856
	1	1.909183	-1.553007	5.278282		6	-0.914338	1.863580	-1.276191
	1	2.357003	-3.860723	1.664117		6	-0.393239	2.809737	-2.160219
	1	2.644967	-3.640087	4.130316		6	-0.693860	4.164804	-1.970773
	6	1.359584	2.061133	1.084529		6	-1.511018	4.586770	-0.912518
	6	2.488317	2.184191	1.908523		6	-2.026017	3.610686	-0.037538
	6	0.982771	3.143448	0.268973		6	-1.732682	2.259069	-0.210034
	6	3.210254	3.382759	1.937177		1	-0.286674	4.898729	-2.663721
	1	2.813767	1.353812	2.528414		1	0.231051	2.493747	-2.990875
	6	1.703942	4.339607	0.301474		1	-2.667318	3.913726	0.788679
	1	0.121844	3.055512	-0.392690		1	-2.141930	1.519321	0.474888
	6	2.816918	4.463966	1.141877		6	-1.841484	6.048320	-0.708600
	1	4.082145	3.468025	2.582234		1	-1.514403	6.391982	0.279237
	1	1.399287	5.170795	-0.330858		1	-1.359230	6.677368	-1.461564
	1	3.379859	5.394454	1.168345		1	-2.922413	6.219476	-0.767199
	6	-3.797339	1.347322	-0.221539		28	-2.506616	-1.439880	0.425270
	6	-4.988187	1.582795	0.491570		15	-4.664552	-1.344178	0.214642
	6	-3.429377	2.229404	-1.250250		6	-5.493080	-2.996197	0.245579
	6	-5.795090	2.677619	0.173684		1	-5.260064	-3.503319	1.186132
	1	-5.296833	0.910491	1.289778		1	-6.580499	-2.901663	0.149721
	6	-4.238596	3.327067	-1.566645		1	-5.115888	-3.612336	-0.575892
	1	-2.507825	2.064309	-1.803580		6	-5.577728	-0.428107	1.534385
	6	-5.421800	3.551769	-0.856325		1	-6.661013	-0.471531	1.376136
	1	-6.714852	2.848138	0.728853		1	-5.342030	-0.862144	2.510159
	1	-3.941867	4.003436	-2.365128		1	-5.262253	0.619426	1.542113
	1	-6.051831	4.404012	-1.101694		6	-5.346430	-0.590869	-1.328876
	6	-3.719494	-1.579762	0.084959		1	-5.010520	0.447073	-1.406918
	6	-3.268052	-2.757330	0.709811		1	-4.965588	-1.133765	-2.198740
	6	-4.884409	-1.626811	-0.699321		1	-6.441606	-0.616130	-1.341398
	6	-3.984887	-3.949556	0.575256					
	1	-2.354138	-2.758536	1.300525					
	6	-5.596951	-2.823469	-0.835433					
	1	-5.244714	-0.734959	-1.205084					
	6	-5.152828	-3.985883	-0.196430					
	1	-3.627228	-4.849896	1.069955					
	1	-6.499767	-2.843598	-1.442002					
	1	-5.709206	-4.914640	-0.301920					
TS2_Ia_cis_L3	6	2.305946	1.460793	-0.168261	TS2_Ila_trans_L4	6	1.574677	-1.002493	-1.355142
	6	0.828677	1.375875	0.258434		6	0.169011	-1.129950	-1.941543
	6	0.124900	0.044445	0.113959		6	-0.852739	-1.936386	-1.174133
	1	0.227434	-0.465692	-0.841770		6	1.356908	-0.092557	0.730760
	6	3.571089	-0.035405	0.971844		7	0.067433	-0.101759	1.139020
	1	4.329055	0.124582	0.202100		6	2.309652	0.108535	-1.996139
	7	2.973022	-1.235490	1.114048		1	0.236811	-1.542426	-2.959202
	6	2.893697	2.727959	0.293349		1	-0.225548	-0.120904	-2.076703
	1	0.272414	2.134181	-0.305848		8	1.809038	0.866840	-2.833569
	1	0.770677	1.692902	1.302326		6	2.223193	-2.304112	-1.123595
	8	2.363547	3.478952	1.120080		8	1.590726	-3.358812	-0.993382
	6	2.653431	1.077803	-1.553822		8	3.577677	-2.292257	-1.055479
	8	3.785608	0.951328	-2.019206		6	4.198197	-3.557562	-0.756219
	8	1.548462	0.871742	-2.333861		1	3.964487	-4.297768	-1.526297
	6	1.809180	0.402428	-3.670140		1	5.269895	-3.355145	-0.738564
	1	2.326672	-0.558553	-3.637358		1	3.867880	-3.928010	0.216946
	1	0.829717	0.294033	-4.137303		8	3.575642	0.315256	-1.546460
	1	2.412267	1.126960	-4.224258		6	4.284072	1.411758	-2.158235

8	4.105831	3.044779	-0.251210	1	3.768792	2.358562	-1.977687
6	4.661007	4.306067	0.167420	1	5.267664	1.418150	-1.686510
1	4.820878	4.324379	1.248073	1	4.382857	1.256696	-3.235897
1	5.613456	4.391252	-0.358552	1	-0.617950	-2.239172	-0.157052
1	4.001386	5.132666	-0.111767	6	-1.981767	-2.470741	-1.785719
6	-0.272923	-0.710854	1.222645	1	-2.141222	-2.302428	-2.852365
1	-0.178919	-0.270403	2.216146	6	-3.085280	-2.871888	-0.966904
6	-1.106257	-1.843813	1.058940	1	-4.013623	-3.159069	-1.455984
1	-0.996046	-2.475177	0.175626	1	-2.888379	-3.394102	-0.027596
1	-1.498406	-2.348441	1.938061	28	-2.683048	-0.994922	-0.584918
6	3.817936	0.694513	2.245780	6	2.288526	-0.926816	1.532915
6	4.982092	1.469584	2.384839	6	3.642577	-0.560959	1.627797
6	2.957378	0.563283	3.350769	6	1.831392	-2.038112	2.265809
6	5.277741	2.103053	3.596738	6	4.519337	-1.284055	2.441416
1	5.666387	1.564953	1.545150	1	4.008268	0.289562	1.059863
6	3.245595	1.205136	4.556787	6	2.710141	-2.766094	3.069940
1	2.070959	-0.057598	3.261183	1	0.783485	-2.318240	2.210512
6	4.408506	1.978015	4.686205	6	4.057869	-2.390962	3.163448
1	6.189326	2.689839	3.690493	1	5.562743	-0.983858	2.510948
1	2.568673	1.097167	5.402013	1	2.344286	-3.623462	3.631190
1	4.636548	2.470955	5.628961	1	4.739911	-2.955061	3.796239
16	3.085030	-2.348647	-0.082145	16	-0.976253	1.088123	0.826863
8	2.415129	-1.942447	-1.343617	8	-1.816522	1.264813	2.030567
8	2.620714	-3.625428	0.515837	8	-1.783713	0.790372	-0.426350
6	4.839726	-2.566721	-0.465077	6	-0.150049	2.643103	0.478929
6	5.645242	-3.299535	0.417338	6	0.041273	3.080429	-0.834266
6	7.000117	-3.465367	0.130613	6	0.696258	4.296054	-1.054095
6	7.573099	-2.906763	-1.028060	6	1.164307	5.076448	0.014669
6	6.746387	-2.172705	-1.890944	6	0.965076	4.605362	1.325517
6	5.383525	-1.997625	-1.618319	6	0.311804	3.396956	1.566371
1	7.622122	-4.039386	0.815690	1	0.844024	4.637008	-2.076896
1	5.215036	-3.742939	1.311595	1	-0.311462	2.487076	-1.671141
1	7.167194	-1.727587	-2.790826	1	1.322092	5.191906	2.170068
1	4.752999	-1.419178	-2.285736	1	0.154577	3.050731	2.584644
6	9.039992	-3.112865	-1.333297	6	1.843649	6.404160	-0.230348
1	9.238068	-4.153911	-1.615362	1	2.259705	6.461466	-1.239946
1	9.371617	-2.475589	-2.157596	1	1.128975	7.228905	-0.119930
1	9.662287	-2.892151	-0.459489	1	2.652054	6.576907	0.486603
28	-2.003041	-0.252462	0.235882	15	-4.641568	-0.420661	0.284747
15	-4.042979	-1.042581	0.513292	6	-4.749779	-0.723117	2.098952
15	-2.832207	1.467124	-0.912411	1	-3.941947	-0.179562	2.595448
6	-5.174488	0.025760	-0.516701	1	-5.714260	-0.388047	2.495645
1	-5.173739	-0.357655	-1.541662	1	-4.632088	-1.791251	2.303451
1	-6.202434	-0.029625	-0.145407	6	-5.031318	1.371560	0.126124
6	-4.651984	1.469753	-0.487811	1	-5.089793	1.645391	-0.931178
1	-4.765666	1.900496	0.512500	1	-5.983927	1.609276	0.611377
1	-5.210435	2.103447	-1.183837	1	-4.230937	1.951801	0.590296
6	-4.409821	-2.779692	0.050530	6	-6.154201	-1.239622	-0.374341
6	-4.496794	-3.784570	1.029832	1	-7.054059	-0.844697	0.109006
6	-4.497416	-3.139699	-1.306829	1	-6.227463	-1.072012	-1.452793
6	-4.691127	-5.119070	0.658414	1	-6.101662	-2.317130	-0.196433
1	-4.418999	-3.534203	2.084689	1	1.793175	0.835647	0.359063
6	-4.695376	-4.474051	-1.673864				
1	-4.409760	-2.390438	-2.090503				
6	-4.794566	-5.467582	-0.692638				
1	-4.761660	-5.884729	1.427916				
1	-4.768516	-4.735464	-2.727197				
1	-4.947735	-6.505569	-0.979602				
6	-4.668452	-0.817418	2.223520				
6	-6.007755	-1.100697	2.551602				
6	-3.810947	-0.314802	3.215357				
6	-6.474736	-0.887445	3.850432				
1	-6.688777	-1.496790	1.800715				
6	-4.281453	-0.099778	4.516270				
1	-2.775089	-0.087764	2.974749				
6	-5.612333	-0.386133	4.835133				
1	-7.510564	-1.112864	4.094346				
1	-3.607757	0.290731	5.275683				
1	-5.978751	-0.220514	5.845950				
6	-2.838187	1.186697	-2.726309				
6	-3.570087	2.015639	-3.597683				
6	-2.151566	0.079970	-3.250911				
6	-3.607059	1.741604	-4.966804				
1	-4.108983	2.880321	-3.215486				
6	-2.194094	-0.196724	-4.622645				
1	-1.583365	-0.570982	-2.589936				
6	-2.920173	0.633787	-5.481751				
1	-4.173248	2.390790	-5.631066				
1	-1.662662	-1.060731	-5.015610				
1	-2.953300	0.420381	-6.547959				
6	-2.287142	3.197743	-0.641929				
6	-2.527029	3.796079	0.609347				
6	-1.567936	3.913436	-1.613903				

	6	-2.082580	5.094870	0.869659					
	1	-3.055701	3.254697	1.391561					
	6	-1.121361	5.212881	-1.348231					
	1	-1.352519	3.466524	-2.580474					
	6	-1.380389	5.808407	-0.109709					
	1	-2.280942	5.546442	1.839191					
	1	-0.568626	5.756053	-2.111659					
	1	-1.032999	6.818744	0.094710					
INT2_Ia_cis_L3	6	2.391584	-1.294974	0.203898	INT2_Ila_trans_L4	6	1.835574	-0.735716	-1.006657
	6	2.886729	-2.675936	0.708121		6	2.929335	0.004253	-1.812156
	6	0.869647	-1.462023	-0.080783		6	0.569520	-0.688695	-1.922396
	1	0.430899	-1.853461	0.838953		1	0.883119	-1.050817	-2.908689
	1	0.749325	-2.249349	-0.827886		1	0.311800	0.367036	-2.061917
	8	2.211216	-3.690494	0.714813		8	3.377384	1.106536	-1.551090
	6	2.578647	-0.293955	1.366856		6	2.304570	-2.174973	-0.741310
	8	1.672989	0.026489	2.122373		8	1.578932	-3.153337	-0.672637
	8	3.833139	0.150092	1.497063		8	3.633021	-2.231507	-0.546035
	6	4.083905	1.034255	2.613123		6	4.179591	-3.527038	-0.207069
	1	3.887956	0.514755	3.554614		1	3.964806	-4.247421	-0.999500
	1	5.134693	1.307087	2.531069		1	5.253371	-3.369972	-0.110648
	1	3.454295	1.922745	2.542687		1	3.756983	-3.876231	0.737372
	8	4.159125	-2.642554	1.142723		8	3.281564	-0.692748	-2.908634
	6	4.697053	-3.896013	1.628409		6	4.279365	-0.085648	-3.763926
	1	4.691259	-4.644508	0.832889		1	5.209866	0.060599	-3.210955
	1	5.717422	-3.670313	1.937050		1	4.425616	-0.791075	-4.581271
	1	4.109155	-4.256650	2.475381		1	3.920671	0.873931	-4.142726
	6	0.102483	-0.235014	-0.518558		6	-0.674120	-1.476883	-1.557257
	1	0.348670	0.706447	-0.031863		1	-0.549920	-2.318683	-0.884750
	6	-0.600773	-0.190204	-1.725245		6	-1.814200	-1.403401	-2.336443
	1	-0.704364	-1.109951	-2.302575		6	-2.989009	-2.142989	-1.959943
	6	-1.450465	0.903514	-2.028340		1	-3.883674	-2.015166	-2.566271
	1	-1.179413	1.907585	-1.697341		1	-2.861687	-3.154615	-1.566495
	1	-2.061684	0.866806	-2.926190		6	1.570174	0.037064	0.363312
	6	3.271298	-0.840660	-1.037964		7	0.218950	-0.297642	0.773343
	1	4.297833	-0.798324	-0.654277		16	-0.749178	0.762285	1.363889
	6	3.262375	-1.900609	-2.150360		8	-0.695318	1.036710	2.829436
	6	4.232776	-2.915885	-2.170716		8	-2.165454	0.312090	0.976235
	6	2.303785	-1.882356	-3.174751		6	-0.542932	2.380780	0.569379
	6	4.233950	-3.897428	-3.169341		6	-1.075850	2.603198	-0.706589
	1	5.013706	-2.929277	-1.412794		6	-0.890254	3.840707	-1.324788
	6	2.296539	-2.861237	-4.173459		6	-0.170930	4.870853	-0.691918
	1	1.584825	-1.069814	-3.202630		6	0.357140	4.624007	0.584594
	6	3.259365	-3.878854	-4.173330		6	0.173311	3.389858	1.218805
	1	5.001866	-4.668704	-3.167999		1	-1.313913	4.008768	-2.313690
	1	1.544883	-2.824971	-4.960024		1	-1.646867	1.824627	-1.206652
	1	3.258729	-4.637391	-4.953452		1	0.918091	5.404153	1.096139
	7	2.765991	0.468404	-1.442903		1	0.576554	3.217207	2.212815
	16	3.755980	1.446461	-2.190969		6	0.001439	6.214635	-1.363797
	8	2.939922	2.537680	-2.806573		1	0.808564	6.791954	-0.904397
	8	4.735265	0.792022	-3.118808		1	0.224556	6.101558	-2.429538
	6	4.819942	2.316800	-0.987858		1	-0.917053	6.809161	-1.286395
	6	6.131672	1.894265	-0.759634		28	-2.632066	-0.933567	-0.495939
	6	6.930074	2.566218	0.176494		15	-4.636680	-1.078291	0.399147
	6	6.440964	3.669466	0.890436		6	-5.950689	-2.097557	-0.387254
	6	5.117210	4.081105	0.645234		1	-5.609135	-3.131156	-0.491543
	6	4.311190	3.412997	-0.277600		1	-6.864501	-2.084759	0.216126
	1	7.952087	2.228534	0.341493		1	-6.179826	-1.708384	-1.383165
	1	6.535855	1.057479	-1.322330		6	-5.436728	0.567239	0.603993
	1	4.713504	4.938951	1.181808		1	-6.368977	0.483762	1.172748
	1	3.294598	3.751455	-0.460695		1	-4.745837	1.231603	1.128081
	6	7.302668	4.404772	1.893705		1	-5.655228	0.996377	-0.378107
	1	6.859355	4.374151	2.895931		6	2.607528	-0.224577	1.461540
	1	8.303991	3.969537	1.956733		6	3.720878	0.615509	1.612641
	1	7.411702	5.461515	1.623774		6	2.442268	-1.286510	2.365844
	28	-2.039746	0.088288	-0.300801		6	4.656164	0.392372	2.631117
	15	-4.116132	0.797179	-0.502458		1	3.859269	1.449114	0.929127
	15	-2.511390	-0.710280	1.727763		6	3.378547	-1.518735	3.377675
	6	-4.929141	0.535867	1.155658		1	1.563551	-1.920638	2.283791
	1	-4.691757	1.389561	1.797957		6	4.492459	-0.679897	3.514917
	1	-6.017665	0.494251	1.050300		1	5.509475	1.059809	2.735908
	6	-4.379476	-0.760581	1.767949		1	3.233784	-2.347754	4.067998
	1	-4.704247	-1.630728	1.187718		1	5.217052	-0.854141	4.307807
	1	-4.742581	-0.895983	2.791342		1	1.663509	1.092044	0.078606
	6	-4.430414	2.542132	-0.973118		1	-1.889745	-0.630544	-3.103834
	6	-4.242742	3.571033	-0.032210		6	-4.554792	-1.741536	2.115391
	6	-4.751932	2.880608	-2.299405		1	-5.536734	-1.705683	2.599308
	6	-4.400187	4.909067	-0.405870		1	-4.205179	-2.777797	2.094467
	1	-3.970006	3.344939	0.996198		1	-3.841315	-1.145571	2.689270
	6	-4.904973	4.220493	-2.670092					
	1	-4.890165	2.104776	-3.048109					
	6	-4.733284	5.237983	-1.725066					
	1	-4.259159	5.692920	0.334993					
	1	-5.158974	4.466336	-3.698865					

	1	-4.854680	6.279464	-2.014556					
	6	-5.118974	-0.233813	-1.641726					
	6	-6.504892	-0.027302	-1.776395					
	6	-4.507675	-1.275244	-2.357883					
	6	-7.260318	-0.847426	-2.617292					
	1	-6.998704	0.777525	-1.235152					
	6	-5.267043	-2.097732	-3.198734					
	1	-3.438629	-1.448921	-2.259970					
	6	-6.642620	-1.884487	-3.329840					
	1	-8.330039	-0.677202	-2.717154					
	1	-4.782273	-2.901685	-3.748028					
	1	-7.233413	-2.522053	-3.983990					
	6	-2.104558	0.431719	3.104659					
	6	-2.641828	0.253090	4.394009					
	6	-1.286970	1.544680	2.852746					
	6	-2.360575	1.170763	5.408765					
	1	-3.276168	-0.602553	4.616341					
	6	-1.009259	2.465476	3.869449					
	1	-0.859839	1.692756	1.864376					
	6	-1.544975	2.280201	5.147541					
	1	-2.778969	1.021125	6.401651					
	1	-0.375134	3.324077	3.660279					
	1	-1.329731	2.995294	5.938671					
	6	-2.005021	-2.397961	2.239706					
	6	-2.437502	-3.485673	1.456955					
	6	-1.168836	-2.639094	3.341833					
	6	-2.066293	-4.790109	1.791501					
	1	-3.062097	-3.322683	0.580269					
	6	-0.796271	-3.947450	3.672021					
	1	-0.803602	-1.814166	3.946825					
	6	-1.246546	-5.024916	2.902902					
	1	-2.412916	-5.621327	1.181419					
	1	-0.151047	-4.120344	4.530619					
	1	-0.956377	-6.040749	3.162102					
TS3_Ia_cis_L3	6	2.650643	1.806599	-0.627897	TS3_Ila_trans_L4	6	2.045993	-0.474902	-1.212011
	6	1.353631	1.410629	0.108781		6	0.864861	-0.045928	-2.110017
	6	0.743033	0.131875	-0.407131		6	-0.447798	-0.634393	-1.667512
	6	3.628604	0.566241	-0.616006		6	1.569565	-0.307412	0.303991
	7	2.728618	-0.523921	-0.953853		7	0.098555	-0.306289	0.269591
	6	3.269264	3.034405	0.066372		6	3.257173	0.393373	-1.601662
	1	0.628599	2.219003	-0.013213		1	1.052301	-0.367464	-3.140349
	1	1.562547	1.323659	1.176343		1	0.790783	1.046066	-2.124257
	8	2.908513	3.475057	1.143038		8	3.610621	0.521766	-2.762723
	6	2.298608	2.220135	-2.077587		6	2.437016	-1.935551	-1.519074
	8	1.223399	2.714406	-2.380156		8	1.674869	-2.780082	-1.954981
	8	3.286888	2.021151	-2.957359		8	3.727301	-2.168748	-1.237724
	6	3.020993	2.445629	-4.316287		6	4.191113	-3.529420	-1.419992
	1	2.166715	1.899588	-4.722027		1	4.061370	-3.835479	-2.460176
	1	2.819595	3.518743	-4.342886		1	5.246783	-3.510805	-1.152156
	1	3.927384	2.209524	-4.872755		1	3.637560	-4.200728	-0.760581
	8	4.268730	3.565881	-0.658404		8	3.865220	0.996057	-0.571383
	6	4.938113	4.712907	-0.079214		6	5.016529	1.814876	-0.899545
	1	5.397784	4.438218	0.872539		1	5.785569	1.204142	-1.376735
	1	5.697993	4.999205	-0.805548		1	4.721707	2.627358	-1.566633
	1	4.225968	5.526386	0.075242		1	5.370110	2.206841	0.053302
	1	0.466125	0.105008	-1.456779		1	-0.436290	-1.706441	-1.500837
	1	4.371525	0.731644	-1.400155		6	-1.677700	-0.099383	-2.125408
	6	0.126356	-0.801534	0.448206		1	-1.670120	0.921191	-2.511526
	6	-0.722462	-1.854429	-0.040311		6	-2.855802	-0.929240	-2.354500
	6	4.383421	0.403827	0.706800		1	-3.582971	-0.553936	-3.077502
	6	5.669182	0.953309	0.842387		1	-2.714568	-2.012600	-2.420204
	6	3.837092	-0.293256	1.795184		16	-0.637336	0.695908	1.285344
	6	6.381970	0.832662	2.040994		8	-0.258745	0.483296	2.701019
	1	6.123419	1.472175	-0.000087		8	-2.114505	0.588526	1.017684
	6	4.543821	-0.413686	2.996225		6	-0.210116	2.413304	0.915791
	1	2.864934	-0.765812	1.692301		6	-0.856467	3.070638	-0.139564
	6	5.817933	0.152775	3.126677		6	-0.505683	4.385866	-0.442137
	1	7.378581	1.261872	2.123255		6	0.487990	5.063627	0.289702
	1	4.103785	-0.958957	3.828993		6	1.115752	4.384907	1.344355
	1	6.369658	0.054329	4.059287		6	0.771599	3.066265	1.665520
	16	3.229349	-1.792192	-1.776109		1	-1.017810	4.897327	-1.255607
	8	4.423796	-1.512860	-2.625908		1	-1.638219	2.567769	-0.702179
	8	2.051352	-2.377445	-2.470926		1	1.879259	4.890017	1.932908
	6	3.769273	-3.074257	-0.608251		1	1.249784	2.561338	2.500169
	6	2.822732	-3.671842	0.234522		6	0.858130	6.487487	-0.059091
	6	3.226865	-4.651321	1.140919		1	1.592098	6.894574	0.641360
	6	4.574405	-5.051620	1.230109		1	1.285262	6.545575	-1.066860
	6	5.503730	-4.438476	0.378627		1	-0.022854	7.138608	-0.045000
	6	5.109619	-3.454373	-0.538918		6	2.139230	-1.348776	1.268494
	1	2.484929	-5.114234	1.790267		6	3.313289	-1.076949	1.985844
	1	1.779469	-3.372566	0.180190		6	1.505016	-2.586247	1.457167
	1	6.551521	-4.730399	0.425060		6	3.850030	-2.023210	2.866323
	1	5.838376	-2.989920	-1.196826		1	3.812306	-0.119346	1.857807

	6	4.994884	-6.115957	2.219732		6	2.042172	-3.536930	2.331126
	1	6.071056	-6.304050	2.172826		1	0.578058	-2.797461	0.930974
	1	4.748605	-5.821163	3.246250		6	3.218243	-3.260024	3.039478
	1	4.478620	-7.063085	2.024981		1	4.758052	-1.792248	3.419781
	28	-1.826025	-0.270694	0.159333		1	1.537011	-4.491249	2.466913
	15	-3.796692	-1.098561	-0.283143		1	3.632195	-3.996601	3.724992
	15	-2.752053	1.691994	0.708402		1	1.957245	0.668095	0.611072
	6	-4.529539	1.549340	0.137905		28	-2.962212	-0.327112	-0.574417
	6	-5.039253	0.122364	0.396484		15	-4.889180	-1.037625	0.116316
	1	-5.135531	-0.055714	1.472187		6	-5.375987	-0.665105	1.860609
	1	-6.026929	-0.027553	-0.050988		1	-4.638109	-1.094412	2.544531
	1	-4.556905	1.763694	-0.935166		1	-5.387204	0.417993	2.013860
	1	-5.164210	2.288581	0.636692		1	-6.365322	-1.070462	2.099528
	1	0.379206	-0.763688	1.508129		6	-5.132054	-2.867760	0.027744
	1	-0.964592	-2.675854	0.633036		1	-4.396295	-3.367462	0.664745
	1	-0.621351	-2.153605	-1.083915		1	-6.138071	-3.155183	0.353120
	6	-4.186565	-1.153171	-2.079682		1	-4.979052	-3.207295	-1.000581
	6	-5.483258	-1.433198	-2.549917		6	-6.341551	-0.406786	-0.836807
	6	-3.169140	-0.874264	-3.006710		1	-6.230786	-0.676351	-1.890868
	6	-5.752536	-1.434177	-3.920816		1	-7.281628	-0.823038	-0.457951
	1	-6.286025	-1.660939	-1.851235		1	-6.382365	0.684199	-0.766850
	6	-3.439615	-0.875351	-4.380610					
	1	-2.163178	-0.656039	-2.654395					
	6	-4.730867	-1.154769	-4.838999					
	1	-6.758171	-1.653896	-4.272890					
	1	-2.642275	-0.658075	-5.087978					
	1	-4.942788	-1.156365	-5.906098					
	6	-4.308154	-2.735493	0.380108					
	6	-4.294149	-3.882315	-0.433186					
	6	-4.607844	-2.878287	1.747715					
	6	-4.595846	-5.138479	0.104186					
	1	-4.052469	-3.802901	-1.489954					
	6	-4.913764	-4.133963	2.281451					
	1	-4.602102	-2.016213	2.411149					
	6	-4.910559	-5.268729	1.461293					
	1	-4.584980	-6.014355	-0.541099					
	1	-5.151386	-4.224105	3.339263					
	1	-5.147904	-6.245388	1.877412					
	6	-2.223829	3.367266	0.152001					
	6	-2.612646	3.876110	-1.100600					
	6	-1.341116	4.124460	0.944088					
	6	-2.152201	5.123308	-1.535788					
	1	-3.276229	3.311453	-1.750778					
	6	-0.877668	5.368540	0.504475					
	1	-1.019122	3.753178	1.914036					
	6	-1.284525	5.874651	-0.735132					
	1	-2.471869	5.504622	-2.503264					
	1	-0.199925	5.941246	1.133932					
	1	-0.927476	6.844310	-1.075208					
	6	-2.922803	1.860127	2.535959					
	6	-3.730093	2.854008	3.119845					
	6	-2.247460	0.954474	3.369844					
	6	-3.858677	2.935576	4.508567					
	1	-4.253795	3.575147	2.495275					
	6	-2.375756	1.036036	4.762100					
	1	-1.616678	0.184789	2.929853					
	6	-3.181926	2.025745	5.332938					
	1	-4.484600	3.709338	4.948039					
	1	-1.846072	0.328216	5.396028					
	1	-3.282849	2.091565	6.414191					

**Table S7.** The optimized Cartesian coordinates (Å) for stationary points on paths **I**, **Ia<sub>cis</sub>\_L1** and **Ia<sub>trans</sub>\_L1**, located at IDSCRF(ACN)–B3LYP–D3/DGDZVP level.

Species	Cartesian coordinates				Species	Cartesian coordinates			
<b>Ni(COD)L1</b>	6	-4.287138	-0.548556	-0.196475	<b>INT2_Ia<sub>cis</sub></b>	6	-0.889587	0.742424	1.156137
	6	-3.720302	-1.889318	0.201497		6	-1.333685	1.432872	2.467365
	6	-2.149391	1.666445	0.132618		6	0.585382	1.148114	0.919690
	6	-2.176778	-1.641377	0.348170		1	1.135312	0.879219	1.819728
	6	-1.604049	0.651043	-0.873583		1	0.628613	2.238354	0.866158
	6	-1.583860	-0.784531	-0.773284		8	-0.593216	2.084962	3.184645
	1	-3.916554	-2.654131	-0.559127		6	-0.964239	-0.778853	1.392780
	1	-2.013629	-1.142910	1.310234		8	0.021983	-1.479545	1.571888
	1	-1.834426	1.401651	1.149597		8	-2.213845	-1.244937	1.426482
	1	-1.628176	1.036809	-1.898588		6	-2.356802	-2.664552	1.663893



	1	-4.338280	-0.350601	-1.267624		1	-1.934379	-2.927305	2.637299
	1	-4.122792	-2.255470	1.154565		1	-3.428529	-2.850202	1.636121
	1	-1.644088	-2.600002	0.397932		1	-1.855536	-3.228674	0.875538
	1	-1.593674	-1.304168	-1.738538		8	-2.634127	1.239350	2.741152
	6	-4.223945	0.506639	0.632019		6	-3.130298	1.884248	3.938841
	1	-4.079413	0.316975	1.699857		1	-3.009630	2.967647	3.859608
	6	-3.714237	1.831311	0.140234		1	-4.185175	1.616536	3.993706
	1	-4.060005	2.046280	-0.878354		1	-2.592065	1.519289	4.816826
	1	-3.992077	2.676556	0.782851		6	1.269996	0.561912	-0.298462
	1	-1.691607	2.641647	-0.080473		1	0.897269	-0.390729	-0.667654
	28	0.204638	-0.027548	-0.422756		6	2.000308	1.384989	-1.167557
	15	1.624709	1.567888	0.007569		1	2.180777	2.420383	-0.872633
	6	2.065912	3.021451	-1.046932		6	2.802011	0.824462	-2.192012
	1	2.885019	3.607275	-0.614428		1	2.461865	-0.064594	-2.728331
	1	2.360332	2.674796	-2.042039		1	3.465775	1.475982	-2.755423
	1	1.186774	3.664047	-1.156153		6	-1.875324	1.119218	-0.020649
	6	1.346474	2.388034	1.645905		1	-2.873372	0.851585	0.345721
	1	0.421818	2.970938	1.603341		6	-1.870811	2.630549	-0.267919
	1	1.226467	1.622557	2.418204		6	-2.746018	3.471880	0.436116
	1	2.178511	3.047127	1.918590		6	-0.985217	3.208663	-1.189058
	6	3.295492	0.753375	0.263966		6	-2.724016	4.858684	0.242450
	1	3.756433	0.659057	-0.727246		1	-3.464267	3.039993	1.129051
	1	3.957021	1.382646	0.871719		6	-0.955270	4.592362	-1.384137
	6	3.107173	-0.639932	0.895428		1	-0.340659	2.556351	-1.769121
	1	4.033261	-1.226382	0.855653		6	-1.821958	5.426576	-0.664737
	1	2.829087	-0.541400	1.952239		1	-3.416130	5.492515	0.793537
	15	1.694755	-1.539398	0.047680		1	-0.260678	5.021783	-2.103879
	6	1.453695	-2.998891	1.156323		1	-1.802979	6.503475	-0.819205
	1	2.394476	-3.526434	1.350900		7	-1.463973	0.314600	-1.168360
	1	1.025116	-2.666094	2.106252		16	-2.585039	-0.012437	-2.230814
	1	0.746157	-3.690991	0.689724		8	-1.927615	-0.634614	-3.419531
	6	2.560012	-2.320230	-1.393264		8	-3.525698	1.113209	-2.540646
	1	1.859096	-2.966845	-1.929726		6	-3.669767	-1.311726	-1.559297
	1	2.893950	-1.538755	-2.082134		6	-4.804025	-0.968208	-0.817320
	1	3.425021	-2.912962	-1.074538		6	-5.600819	-1.974764	-0.259614
						6	-5.290637	-3.331532	-0.441796
						6	-4.150663	-3.655578	-1.198308
						6	-3.339068	-2.659043	-1.744954
						1	-6.481949	-1.697050	0.316728
						1	-5.074266	0.076769	-0.693392
						1	-3.892348	-4.701337	-1.358828
						1	-2.460683	-2.921388	-2.328585
						6	-6.135165	-4.418472	0.185117
						1	-5.691959	-4.759938	1.129302
						1	-7.146745	-4.065423	0.406653
						1	-6.213389	-5.292284	-0.469706
						28	3.300789	0.010757	-0.426015
						15	5.359601	-0.433899	-0.984348
						15	3.545203	-1.198276	1.398528
						6	5.796358	-1.105856	-2.632867
						1	6.868628	-1.317458	-2.695139
						1	5.234443	-2.026161	-2.813154
						1	5.527708	-0.377090	-3.402219
						6	6.435659	1.044865	-0.795786
						1	6.134166	1.805848	-1.520524
						1	6.314248	1.458758	0.208876
						1	7.486519	0.783371	-0.956695
						6	6.035451	-1.658899	0.239790
						1	5.793611	-2.659975	-0.135371
						1	7.127166	-1.586142	0.296500
						6	2.944073	-0.760196	3.073579
						1	3.237702	0.263017	3.323059
						1	1.855494	-0.839548	3.088116
						1	3.365031	-1.447000	3.815277
						6	2.932301	-2.912462	1.138157
						1	3.322815	-3.303615	0.194790
						1	3.252639	-3.562728	1.959027
						1	1.842722	-2.889896	1.088863
						6	5.380214	-1.423169	1.612369
						1	5.770309	-0.509388	2.076155
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R1	6	0.189981	1.169568	1.565882	TS3_Ia_cis	6	-0.997842	2.138571	0.093065
	6	0.153414	0.106920	0.477153		6	-1.565415	3.189046	-0.868108
	6	-0.169276	1.599538	0.173688		6	0.109871	1.329342	-0.603428
	1	-0.604765	1.103055	2.302634		1	0.957316	1.987699	-0.784328
	1	1.169553	1.440021	1.946263		1	-0.249184	0.986504	-1.574352
	1	0.611005	2.096640	-0.395240		8	-1.207591	3.333699	-2.023729
	6	1.458998	-0.476496	0.034722		6	-0.383136	2.868835	1.308480
	8	1.685198	-1.674077	-0.047602		8	0.798425	3.171384	1.372720

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	6	3.709167	-0.005163	-0.546535		6	-0.752567	3.849454	3.426361
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	1	4.111158	-0.615526	0.265750		1	-0.328591	4.812620	3.132428
	1	3.672649	-0.595390	-1.465147		1	-1.608885	3.988869	4.085436
	6	-1.022090	-0.833784	0.467419		8	-2.528266	3.920393	-0.284223
	8	-1.807167	-0.971678	1.392627		6	-3.200511	4.880994	-1.135152
	8	-1.150799	-1.447160	-0.719615		1	-3.695798	4.362778	-1.959936
	6	-2.273730	-2.354333	-0.845852		1	-3.931868	5.371963	-0.493920
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	1	-2.196701	-3.155662	-0.106979		6	0.569022	0.158295	0.232907
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	6	-1.858988	2.859242	-1.148037		6	-2.110516	1.132182	0.555873
	1	-2.356390	1.555715	0.427211		1	-2.736805	1.640312	1.293496
	1	-2.889668	3.134921	-1.357070		6	0.947936	-1.066597	-0.364821
	1	-1.087996	3.322165	-1.762103		6	1.693971	-2.075802	0.342067
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						1	-1.699818	-0.873481	-1.305726
						6	-4.728801	-0.142553	-2.673525
						1	-6.084175	1.367308	-1.927196
						1	-3.187087	-1.582905	-3.144531
						1	-5.394459	-0.466846	-3.470701
						16	-1.930301	-0.998607	2.139822
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						1	5.727184	1.387340	0.417179
						1	6.447271	1.473674	-1.193994
						1	0.585881	-1.274144	-1.372325
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<b>COD</b>	6	0.575360	-1.237603	-0.613119	<b>P1_cis</b>	6	-2.242641	-0.392993	0.407188
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	6	-1.701616	0.619731	0.417624		1	-1.237230	0.246455	2.213826
	6	1.572579	0.628954	0.598843		1	-2.119237	-1.278029	2.424337
	6	-0.693756	1.473603	-0.340808		6	-2.950400	-1.684163	-0.043985
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	1	2.654084	-0.653031	-0.839162		8	-4.174825	0.810656	-0.401410
	1	1.086752	0.431440	1.560553		8	-3.144904	1.543135	1.475064
	1	-1.441340	0.581867	1.482967		6	-3.996421	2.717744	1.471742
	1	-1.135634	2.147754	-1.076379		1	-5.047565	2.423057	1.503407
	1	0.373037	-0.981601	-1.653060		1	-3.721181	3.273923	2.366981
	1	2.306326	-1.428674	0.713600		1	-3.799010	3.307139	0.573399
	1	-2.688639	1.093252	0.354345		8	-3.868594	-2.172058	0.591999
	1	2.499794	1.175967	0.810735		8	-2.429311	-2.227310	-1.149756
	1	1.167749	2.166898	-0.947819		6	-3.016603	-3.480224	-1.586629
	6	-0.468592	-1.458858	0.201647		1	-2.456198	-3.763558	-2.476515
	1	-0.267387	-1.637141	1.261861		1	-2.910391	-4.234311	-0.803597
	6	-1.816329	-0.863556	-0.097357		1	-4.073583	-3.335531	-1.820540
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						6	-0.332933	4.311104	-0.490517
						1	-1.748913	4.384609	-2.123134
						1	1.055309	3.904928	1.115633
						1	-0.163973	5.385678	-0.477856
						16	1.182851	-1.431141	-1.051515
						8	0.821600	-0.983642	-2.407431
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						6	2.719491	-0.631716	-0.596465
						6	3.654645	-1.313897	0.182717
						6	2.937520	0.688330	-1.009527
						6	4.830257	-0.655437	0.556577
						1	3.465500	-2.336533	0.492792
						6	4.114049	1.327998	-0.624288
						1	2.203274	1.204620	-1.621254
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COM1_I	6	3.460827	-0.747663	-0.868333	TS2_Ia_trans	6	-2.080118	-0.121153	1.144254
	6	1.943457	-0.739436	1.279725		6	-2.491342	1.112370	1.864475
	6	2.916164	-0.037512	0.324879		6	-0.549962	-0.150702	1.029177
	1	2.010817	-0.421539	2.315718		1	-0.157901	-0.227231	2.050438
	1	1.821539	-1.805903	1.122196		1	-0.227362	0.823652	0.666462
	8	4.008730	-0.207006	-1.818082		8	-1.691983	1.920300	2.343553
	6	3.676059	1.091692	0.923572		6	-2.682071	-1.403395	1.529520
	8	3.223525	1.807968	1.811986		8	-2.109672	-2.494773	1.432679
	8	4.924792	1.239676	0.435751		8	-3.959090	-1.331518	1.997563
	6	5.697187	2.319845	1.011637		6	-4.569840	-2.596322	2.320052
	1	5.827913	2.165784	2.085762		1	-4.015074	-3.104688	3.113865
	1	6.659190	2.290158	0.499854		1	-5.578023	-2.351887	2.658504
	1	5.200297	3.277980	0.840045		1	-4.611475	-3.239924	1.437738
	6	-4.540355	0.144185	0.326334		8	-3.828290	1.342782	1.899728
	6	-3.829610	-0.318312	1.613486		6	-4.216636	2.632056	2.417231
	28	-1.402770	0.046997	-0.515648		1	-3.779797	3.423093	1.802977
	15	-2.171882	-1.079953	1.184699		1	-5.305751	2.652228	2.354155
	15	-3.324372	1.035332	-0.788786		1	-3.894404	2.749447	3.455690
	6	-1.351037	-1.207435	2.833160		6	0.129715	-1.212975	0.195311
	1	-1.995452	-1.695144	3.573148		1	0.123310	-2.225947	0.596460
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	1	-1.088746	-0.206381	3.187497		1	0.194083	-0.080274	-1.618333
	6	-2.625696	-2.843735	0.855794		6	1.320958	-1.917350	-1.819727
	1	-3.170328	-3.285688	1.697659		1	1.332903	-2.980586	-1.569629
	1	-3.247691	-2.897027	-0.042486		1	1.648474	-1.677867	-2.828838
	1	-1.715390	-3.422157	0.672073		6	-2.909392	0.355866	-0.828060
	6	-3.409977	2.768154	-0.143736		7	-1.963236	0.933813	-1.608214
	1	-3.004213	2.797448	0.871711		16	-1.799934	2.554993	-1.555583
	1	-2.795368	3.418763	-0.772727		8	-2.649673	3.224835	-0.535465

	1	-4.438979	3.144498	-0.131169		8	-1.914026	3.073152	-2.945667
	1	-5.262542	1.617272	-2.208604		6	-0.076203	2.802149	-1.089862
	1	-3.710020	1.804142	-3.067113		6	0.929938	2.397200	-1.974636
	1	-4.386132	0.185593	-2.813331		6	2.266597	2.556034	-1.608804
	1	-3.623653	0.542103	2.262233		6	2.616104	3.147387	-0.382060
	1	-4.452206	-1.016200	2.186114		6	1.586308	3.554573	0.480683
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	1	-5.407638	0.775792	0.553304		1	3.044882	2.244678	-2.302289
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	6	3.559704	-2.813758	-2.026752		1	1.832921	4.019897	1.433398
	1	3.260820	-3.843546	-1.830461		1	-0.550664	3.651933	0.829674
	1	3.018185	-2.413421	-2.887735		6	4.067030	3.333578	0.000121
	1	4.634756	-2.754676	-2.214170		1	4.200497	4.191651	0.665330
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	6	-0.029768	0.615542	-1.810997		28	2.196669	-1.112183	-0.194050
	6	1.324127	0.176081	0.296377		15	4.251618	-1.512624	-0.802011
	1	1.080838	1.169961	0.662923		15	2.886187	-0.621109	1.834437
	1	0.686522	-1.334296	-1.150357		6	4.656847	-3.010902	-1.776891
	1	0.219965	1.676683	-1.740957		1	5.740013	-3.120211	-1.891852
	1	-0.208977	0.274049	-2.831599		1	4.255088	-3.893775	-1.272704
						1	4.195626	-2.933995	-2.765070
						6	5.065862	-0.147628	-1.725466
						1	4.558411	-0.007799	-2.683805
						1	4.988295	0.781571	-1.157369
						1	6.122092	-0.375256	-1.902400
						6	5.242004	-1.680460	0.762867
						1	5.087337	-2.703046	1.126965
						1	6.312640	-1.561807	0.561805
						6	2.497476	0.924030	2.743968
						1	2.893468	1.778772	2.194520
						1	1.417019	1.051894	2.833849
						1	2.946614	0.896315	3.742191
						6	2.423111	-1.956843	3.011212
						1	2.728554	-2.924784	2.604632
						1	2.899493	-1.803840	3.984808
						1	1.336857	-1.965474	3.135672
						6	4.748625	-0.657342	1.800890
						1	5.087992	0.350456	1.535350
						1	5.147160	-0.877093	2.797491
						1	-3.658459	0.987380	-0.352706
						6	-3.440067	-0.955874	-1.287428
						6	-4.733836	-1.341331	-0.893629
						6	-2.714690	-1.801729	-2.144119
						6	-5.282079	-2.551505	-1.328295
						1	-5.307840	-0.692310	-0.237721
						6	-3.258976	-3.013483	-2.574279
						1	-1.728382	-1.500853	-2.477217
						6	-4.544080	-3.396967	-2.165655
						1	-6.284933	-2.833231	-1.013949
						1	-2.683163	-3.659558	-3.234040
						1	-4.967972	-4.340473	-2.503138
<b>TS1_I</b>	6	-3.645149	1.005119	-0.531117	<b>INT2_Ia_trans</b>	6	-0.946177	-0.217477	0.937062
	6	-1.937815	0.490701	1.363091		6	-2.015065	0.802539	1.408941
	6	-3.047073	0.052746	0.411506		6	0.096828	0.584709	0.120834
	1	-1.917192	-0.071436	2.293069		1	0.460974	1.384972	0.762240
	1	-1.840808	1.564554	1.491289		1	-0.441996	1.065846	-0.697552
	8	-4.458038	0.763061	-1.420465		8	-1.772351	1.986398	1.589987
	6	-3.619179	-1.268730	0.688656		6	-0.292814	-0.731431	2.230479
	8	-3.113626	-2.063051	1.489312		8	0.897314	-0.646164	2.486077
	8	-4.749651	-1.574789	0.005249		8	-1.186671	-1.272270	3.076152
	6	-5.303184	-2.878753	0.286375		6	-0.649970	-1.790118	4.318150
	1	-5.570736	-2.967540	1.342808		1	-0.157398	-0.991969	4.878367
	1	-6.193519	-2.953923	-0.339190		1	-1.510039	-2.174019	4.865907
	1	-4.589207	-3.666075	0.029758		1	0.066752	-2.589325	4.112609
	6	4.512772	-0.332633	0.238230		8	-3.207566	0.251297	1.651491
	6	3.809949	-0.332234	1.610354		6	-4.223682	1.135377	2.182472
	28	1.386326	0.165366	-0.487939		1	-4.405328	1.958491	1.490962
	15	2.195137	0.607737	1.498542		1	-5.115398	0.518653	2.281521
	15	3.272513	-0.714019	-1.111866		1	-3.906123	1.523273	3.153950
	6	1.359084	0.183011	3.086054		6	1.257444	-0.201904	-0.452212
	1	2.014022	0.352441	3.947784		1	1.565157	-1.100566	0.080568
	1	0.460953	0.797759	3.193341		6	1.607781	-0.069007	-1.804982
	1	1.053113	-0.866895	3.066467		1	1.126687	0.717200	-2.389295
	6	2.726163	2.353541	1.793720		6	2.795187	-0.654732	-2.302485
	1	3.285861	2.450448	2.730502		1	3.119879	-1.629668	-1.931692
	1	3.354080	2.687977	0.962921		1	3.120150	-0.411633	-3.311228
	1	1.843220	2.998158	1.832790		6	-1.648929	-1.382375	0.117887
	6	3.288985	-2.561327	-1.166423		7	-2.087983	-0.811824	-1.147198

	1	2.892621	-2.956122	-0.226578		16	-3.576540	-1.047119	-1.592451
	1	2.640819	-2.903064	-1.978484		8	-4.294391	-2.166246	-0.896903
	1	4.301345	-2.949842	-1.322552		8	-3.639937	-1.101178	-3.088979
	1	5.162897	-0.766038	-2.695911		6	-4.547841	0.445792	-1.201697
	1	3.591436	-0.571810	-3.518255		6	-3.955923	1.704915	-1.352759
	1	4.329071	0.811730	-2.690513		6	-4.705290	2.857866	-1.108471
	1	3.559275	-1.357728	1.908548		6	-6.050609	2.779291	-0.704822
	1	4.457447	0.084958	2.390644		6	-6.622828	1.507060	-0.553618
	1	4.922151	0.661786	0.021804		6	-5.881140	0.344997	-0.799988
	1	5.349635	-1.040650	0.218365		1	-4.235002	3.833334	-1.223340
	8	-3.148184	2.265294	-0.350630		1	-2.909731	1.778684	-1.638767
	6	-3.560999	3.245809	-1.322670		1	-7.659894	1.418338	-0.233675
	1	-3.041224	4.164501	-1.047850		1	-6.330351	-0.635633	-0.669052
	1	-3.275243	2.933234	-2.330724		6	-6.838580	4.033556	-0.398819
	1	-4.643521	3.395070	-1.285715		1	-6.621322	4.391749	0.615256
	6	4.186213	-0.271907	-2.650520		1	-6.584763	4.843791	-1.089957
	6	-0.528515	0.663020	-0.800851		1	-7.916487	3.856568	-0.460837
	6	0.068906	0.039408	-1.946363		28	3.218738	0.484733	-0.697246
	6	-1.239791	-0.091902	0.211420		15	5.256772	0.958938	-1.307518
	1	-1.065511	-1.163822	0.247150		15	3.635040	1.316061	1.296849
	1	-0.670476	1.742963	-0.788229		6	6.364933	-0.302861	-2.041315
	1	-0.185631	-0.996406	-2.182493		1	7.361611	0.112588	-2.221376
	1	0.277029	0.650433	-2.825092		1	6.445457	-1.156744	-1.363404
						1	5.941912	-0.647999	-2.988462
						6	5.285608	2.349394	-2.509357
						1	4.804653	2.033060	-3.438779
						1	4.725517	3.195477	-2.102159
						1	6.314242	2.660800	-2.717797
						6	6.167061	1.604889	0.179543
						1	6.609112	0.741331	0.689583
						1	6.990400	2.259535	-0.126711
						6	2.504288	2.370038	2.280812
						1	2.120652	3.188961	1.666544
						1	1.669157	1.760932	2.631980
						1	3.034304	2.784283	3.144744
						6	4.132911	-0.011667	2.467350
						1	4.888898	-0.649978	2.002179
						1	4.541818	0.421774	3.386084
						1	3.255988	-0.616185	2.703160
						6	5.180406	2.334310	1.108971
						1	4.886493	3.300367	0.681707
						1	5.630383	2.531104	2.088599
						1	-2.482122	-1.718661	0.741588
						6	-0.757007	-2.617602	-0.086742
						6	-0.573951	-3.547389	0.950790
						6	-0.145222	-2.877453	-1.321411
						6	0.239914	-4.673468	0.778366
						1	-1.089042	-3.406853	1.896855
						6	0.670740	-3.998229	-1.500482
						1	-0.319832	-2.186823	-2.138795
						6	0.877473	-4.898625	-0.447214
						1	0.364382	-5.379179	1.597454
						1	1.143561	-4.171271	-2.465530
						1	1.510892	-5.772541	-0.585212
INT1_I	6	3.817212	1.172705	-0.328665	TS3_Ia_trans	6	-1.450436	-1.311851	0.690055
	6	1.621517	-0.031775	-0.809966		6	-1.992511	-1.658346	2.081738
	6	3.052632	-0.033595	-0.297841		6	-0.094309	-0.612327	0.942023
	1	1.366850	-1.054200	-1.094812		1	0.598151	-1.343697	1.360134
	1	1.514564	0.593402	-1.700506		1	-0.237259	0.170889	1.694317
	8	4.976906	1.403988	0.062615		8	-1.547511	-2.578656	2.748268
	6	3.476516	-1.259056	0.302827		6	-1.236240	-2.623900	-0.079562
	8	2.754467	-2.278674	0.413297		8	-0.246786	-2.881153	-0.744909
	8	4.772617	-1.301063	0.781464		8	-2.286012	-3.446601	0.042276
	6	5.162828	-2.546299	1.380425		6	-2.242990	-4.659954	-0.744961
	1	5.106662	-3.370832	0.662310		1	-1.371684	-5.259308	-0.470365
	1	6.196486	-2.403126	1.703614		1	-3.166963	-5.187496	-0.511268
	1	4.532301	-2.791019	2.241413		1	-2.203130	-4.410459	-1.807826
	6	-3.452034	-1.977169	-0.488071		8	-2.915936	-0.796038	2.529356
	6	-4.334504	-0.718188	-0.575764		6	-3.396755	-1.020381	3.879041
	28	-1.419330	0.477455	0.181078		1	-3.860244	-2.006691	3.952254
	15	-3.578464	0.641747	0.444589		1	-2.569681	-0.947775	4.589050
	15	-1.660571	-1.512013	-0.703558		1	-4.129729	-0.234107	4.056531
	6	-4.471890	2.163305	-0.057456		6	0.505651	0.005636	-0.298710
	1	-5.554800	2.027882	0.029375		1	0.723746	-0.667686	-1.117643
	1	-4.159742	2.991488	0.584573		6	1.300552	1.173229	-0.174638
	1	-4.218914	2.410433	-1.091877		1	1.138488	1.794638	0.706168
	6	-4.172413	0.319037	2.154632		6	2.210716	1.626467	-1.192566
	1	-5.266399	0.297088	2.189070		6	-2.324301	-0.295790	-0.139616
	1	-3.779930	-0.638914	2.506324		7	-1.391637	0.250542	-1.128986

	1	-3.804227	1.105733	2.818774		16	-1.782892	1.659266	-1.818971
	6	-1.381520	-1.600114	-2.518554		8	-3.154691	1.638192	-2.392883
	1	-2.025111	-0.871912	-3.020049		8	-0.680821	2.013101	-2.742750
	1	-0.341273	-1.350855	-2.740620		6	-1.832743	2.931809	-0.534343
	1	-1.604914	-2.602679	-2.897478		6	-0.711452	3.733767	-0.301415
	1	-0.954902	-3.847477	-0.542888		6	-0.741559	4.673505	0.731537
	1	0.354174	-2.727499	-0.050297		6	-1.876009	4.822243	1.547960
	1	-1.001328	-3.042196	1.046932		6	-2.995856	4.015747	1.286030
	1	-4.383693	-0.352692	-1.608484		6	-2.984435	3.078682	0.248515
	1	-5.360714	-0.924716	-0.251602		1	0.129950	5.303647	0.901760
	1	-3.545069	-2.441239	0.500874		1	0.165841	3.624992	-0.929983
	1	-3.752268	-2.726848	-1.228487		1	-3.893844	4.126735	1.891354
	8	3.083674	2.218733	-0.901921		1	-3.870462	2.487131	0.034081
	6	3.748481	3.484902	-0.951914		6	-1.882327	5.812969	2.690406
	1	3.035955	4.175028	-1.409955		1	-2.896307	6.151641	2.923224
	1	4.014647	3.836097	0.050645		1	-1.471706	5.356001	3.599273
	1	4.660589	3.435547	-1.556239		1	-1.270642	6.691273	2.462229
	6	-0.721320	-2.923242	-0.003937		6	-3.585801	-0.912482	-0.737482
	6	0.146461	1.763308	0.257944		6	-4.795801	-0.865065	-0.035076
	6	-0.862015	2.142535	1.176484		6	-3.550790	-1.552588	-1.984597
	6	0.665798	0.454937	0.260797		6	-5.949791	-1.461694	-0.559768
	1	0.297449	2.366182	-0.637845		1	-4.839980	-0.359779	0.926313
	1	-0.843100	1.763204	2.200944		6	-4.695494	-2.154817	-2.508693
	1	-1.362165	3.099370	1.048378		1	-2.620310	-1.563465	-2.546021
	1	0.729831	-0.081605	1.212995		6	-5.902702	-2.114432	-1.796306
						1	-6.884003	-1.412764	-0.003745
						1	-4.651201	-2.651041	-3.476310
						1	-6.797468	-2.578537	-2.206119
						1	-2.628643	0.462744	0.591590
						15	3.660559	-1.454773	1.129654
						6	3.277260	-1.622464	2.924647
						1	3.740088	-2.520660	3.347216
						1	3.646682	-0.741872	3.457774
						1	2.194895	-1.681613	3.070577
						6	3.117654	-3.076719	0.434856
						1	2.026450	-3.116411	0.381673
						1	3.501108	-3.172859	-0.585199
						1	3.489606	-3.911285	1.038790
						6	5.523807	-1.581675	1.084064
						1	5.908646	-0.890857	1.844038
						1	5.854111	-2.589356	1.361390
						6	6.044561	-1.186397	-0.311800
						1	7.131791	-1.047145	-0.307611
						1	5.819119	-1.974439	-1.040336
						15	5.171673	0.357438	-0.897511
						6	5.570794	0.441168	-2.690536
						1	5.085418	-0.389539	-3.210127
						1	5.180947	1.377862	-3.098804
						1	6.651353	0.394272	-2.862768
						6	6.184672	1.721362	-0.180345
						1	5.788969	2.681451	-0.523181
						1	6.113400	1.692379	0.910485
						1	7.235251	1.634021	-0.477300
						28	3.146213	0.263554	-0.149849
						1	2.046530	1.291333	-2.217799
						1	2.576892	2.651317	-1.125377
<b>R2</b>	16	0.647288	1.730873	-0.121902	<b>P1_trans</b>	6	-1.365745	1.184263	0.174245
	8	0.489061	2.371548	1.200602		6	-1.079588	0.941440	1.672779
	8	0.889918	2.584851	-1.297376		6	0.182808	0.046105	1.703098
	6	1.935120	0.496718	-0.015603		6	-1.029552	-0.199987	-0.469979
	6	2.258597	-0.047695	1.231013		1	-1.921744	0.402420	2.107325
	6	3.256077	-1.022125	1.300121		1	-0.941890	1.869660	2.227242
	6	3.927728	-1.457909	0.144599		1	0.083891	-0.714909	2.484052
	6	3.581032	-0.886753	-1.092553		6	-2.796623	1.606428	-0.172036
	6	2.586830	0.088706	-1.183966		6	-0.441654	2.269151	-0.412556
	1	1.749369	0.291382	2.129265		8	-3.082013	2.149517	-1.226844
	1	3.518584	-1.444198	2.268155		8	0.316560	2.120399	-1.352420
	1	4.097287	-1.204170	-1.996433		8	-3.682127	1.272877	0.769994
	1	2.329869	0.533207	-2.141705		8	-0.584477	3.418721	0.264256
	6	4.981592	-2.537600	0.225391		6	-5.077682	1.485006	0.433891
	1	5.746773	-2.408811	-0.545729		1	-5.339280	0.874788	-0.433534
	1	5.472703	-2.546773	1.202669		1	-5.635549	1.165759	1.313270
	1	4.527308	-3.524642	0.075480		1	-5.258216	2.540378	0.218696
	7	-0.703196	0.763176	-0.529697		6	0.208870	4.538990	-0.205068
	6	-1.643569	0.690772	0.354705		1	-0.050214	4.772508	-1.240289
	1	-1.566687	1.218949	1.314249		1	-0.044290	5.367917	0.454709
	6	-2.858330	-0.092136	0.135630		1	1.272515	4.298961	-0.135785
	6	-3.831498	-0.118232	1.153739		6	1.463532	0.814932	1.918913
	6	-3.074396	-0.816110	-1.056253		1	1.715497	1.559963	1.164821

	6	-5.005029	-0.857561	0.985633		6	2.272860	0.620661	2.963427
	1	-3.666564	0.440104	2.073791		1	2.058875	-0.137227	3.715799
	6	-4.245561	-1.551856	-1.218739		1	3.179866	1.205679	3.094254
	1	-2.321316	-0.792651	-1.839352		7	0.123579	-0.595445	0.361038
	6	-5.212068	-1.573866	-0.199201		16	1.109725	-1.862406	-0.052444
	1	-5.754098	-0.875451	1.773566		8	1.217269	-2.793066	1.084608
	1	-4.413154	-2.110409	-2.136689		8	0.605836	-2.354143	-1.346595
	1	-6.125291	-2.150038	-0.331859		6	2.725218	-1.128773	-0.301228
						6	3.823014	-1.606500	0.414056
						6	2.848783	-0.073709	-1.212192
						6	5.072722	-1.015277	0.205752
						1	3.699607	-2.410642	1.133327
						6	4.101693	0.506457	-1.401620
						1	1.979870	0.312475	-1.737065
						6	5.231682	0.044924	-0.700128
						1	5.931456	-1.380437	0.765545
						1	4.202368	1.335911	-2.099216
						1	-0.705099	-0.045751	-1.499813
						6	-2.198012	-1.174877	-0.447261
						6	-3.100471	-1.174950	-1.521170
						6	-2.426549	-2.036060	0.633819
						6	-4.226460	-2.004000	-1.504694
						1	-2.925879	-0.519102	-2.372029
						6	-3.549170	-2.869936	0.650950
						1	-1.722102	-2.072037	1.460718
						6	-4.457084	-2.852171	-0.414607
						1	-4.918428	-1.991964	-2.344064
						1	-3.713325	-3.535311	1.495847
						1	-5.330570	-3.500362	-0.400577
						6	6.586443	0.670934	-0.937830
						1	7.280772	0.451640	-0.121944
						1	7.029444	0.285805	-1.864289
						1	6.509167	1.757754	-1.042533
TS2_Ia_cis	6	-0.471134	-2.185428	-0.331676					
	6	0.653694	-1.760810	0.615981					
	6	0.991124	-0.281173	0.681631					
	6	-2.207252	-0.952468	0.084744					
	7	-1.870806	0.355778	0.147114					
	6	-0.967643	-3.534431	0.001727					
	1	1.554297	-2.333631	0.369757					
	1	0.378850	-2.092406	1.619935					
	8	-0.563906	-4.199309	0.960941					
	6	-0.240375	-1.826301	-1.738709					
	8	0.694386	-1.103470	-2.102639					
	8	-1.142768	-2.301046	-2.629502					
	6	-0.955667	-1.857265	-3.989001					
	1	0.024584	-2.163097	-4.365955					
	1	-1.749529	-2.341221	-4.560358					
	1	-1.054122	-0.771452	-4.041554					
	8	-1.973537	-3.994325	-0.789480					
	6	-2.491706	-5.292307	-0.437628					
	1	-2.895608	-5.284165	0.578196					
	1	-3.282973	-5.493660	-1.161435					
	1	-1.710318	-6.054477	-0.507288					
	1	0.660925	0.354735	-0.134113					
	6	1.309314	0.318381	1.907646					
	1	1.458666	-0.321053	2.780582					
	6	1.798416	1.649026	1.950351					
	1	1.395954	2.395260	1.260951					
	1	2.170860	2.044283	2.892736					
	1	-2.714513	-1.339577	-0.802079					
	6	-2.639000	-1.553273	1.376256					
	6	-3.636174	-2.542246	1.387858					
	6	-2.089426	-1.126736	2.598613					
	6	-4.071078	-3.101030	2.594099					
	1	-4.074359	-2.870671	0.448937					
	6	-2.516873	-1.690705	3.802156					
	1	-1.334601	-0.346377	2.593081					
	6	-3.509069	-2.681896	3.805775					
	1	-4.848738	-3.862074	2.587006					
	1	-2.080001	-1.356045	4.740961					
	1	-3.843819	-3.117955	4.744651					
	16	-1.917719	1.265819	-1.201713					
	8	-2.392472	0.543352	-2.412214					
	8	-0.642228	2.018895	-1.332198					
	6	-3.179139	2.486979	-0.788440					
	6	-2.824391	3.645508	-0.091616					
	6	-3.817998	4.564703	0.257207					
	6	-5.163746	4.343886	-0.081319					

	6	-5.492383	3.170566	-0.782037		
	6	-4.510795	2.241393	-1.136381		
	1	-3.540736	5.466807	0.799908		
	1	-1.784675	3.827068	0.166808		
	1	-6.528697	2.979738	-1.055616		
	1	-4.773438	1.339173	-1.682595		
	6	-6.228156	5.359685	0.268149		
	1	-5.961393	5.928145	1.164167		
	1	-6.359012	6.078661	-0.550005		
	1	-7.197092	4.881262	0.440554		
	28	2.918502	0.574322	0.685266		
	15	4.738148	1.732806	0.972733		
	15	3.864538	-0.478776	-1.001418		
	6	4.734513	3.566090	1.015827		
	1	5.752665	3.956417	1.113402		
	1	4.285000	3.952301	0.097094		
	1	4.135678	3.905005	1.865460		
	6	5.599748	1.247204	2.523489		
	1	4.982178	1.524131	3.382058		
	1	5.741635	0.163137	2.536828		
	1	6.573520	1.741851	2.599348		
	6	5.932757	1.277455	-0.378376		
	1	5.747583	1.956057	-1.218855		
	1	6.965873	1.438214	-0.050934		
	6	3.728672	-2.270177	-1.360262		
	1	3.950534	-2.851839	-0.461278		
	1	2.708003	-2.478853	-1.685853		
	1	4.428642	-2.551960	-2.153799		
	6	3.487961	0.329551	-2.609615		
	1	3.631573	1.409892	-2.521069		
	1	4.146538	-0.058623	-3.393859		
	1	2.446498	0.127385	-2.861774		
	6	5.692350	-0.183489	-0.801468		
	1	6.056240	-0.874188	-0.031483		
	1	6.223051	-0.418132	-1.731202		

**Table S8.** The optimized Cartesian coordinates (Å) for stationary points on paths **I**, **Ia\_cis\_L1** and **Ia\_trans\_L1**, located at IDSCRF(ACN)–M06–2X/DGDZVP level.

Species	Cartesian coordinates				Species	Cartesian coordinates			
Ni(COD)L1	6	-4.316643	-0.540689	-0.217799	INT2_Ia_cis	6	-0.863800	0.777542	1.126513
	6	-3.773685	-1.883181	0.195763		6	-1.301970	1.414868	2.455807
	6	-2.201345	1.658729	0.157546		6	0.592584	1.211670	0.886504
	6	-2.242092	-1.638567	0.382483		1	1.159567	0.909736	1.769832
	6	-1.643184	0.644995	-0.839501		1	0.623376	2.305160	0.871506
	6	-1.622599	-0.795855	-0.731924		8	-0.566092	2.057188	3.176210
	1	-3.951948	-2.645117	-0.569320		6	-0.908794	-0.743783	1.298908
	1	-2.110580	-1.130859	1.345512		8	0.089239	-1.433225	1.406920
	1	-1.914310	1.393060	1.183747		8	-2.141484	-1.229980	1.348714
	1	-1.691851	1.021428	-1.866438		6	-2.241401	-2.656756	1.483462
	1	-4.345922	-0.336496	-1.288077		1	-1.799499	-2.971986	2.430514
	1	-4.209364	-2.239441	1.135709		1	-3.307328	-2.874520	1.455577
	1	-1.714558	-2.598269	0.458614		1	-1.729474	-3.144359	0.652889
	1	-1.655817	-1.312985	-1.697539		8	-2.584982	1.189995	2.748263
	6	-4.267902	0.504184	0.615257		6	-3.050636	1.782522	3.973083
	1	-4.148945	0.310206	1.684935		1	-2.933165	2.866756	3.929792
	6	-3.757276	1.827657	0.132275		1	-4.100414	1.509442	4.046924
	1	-4.082207	2.028275	-0.894528		1	-2.486122	1.386566	4.817856
	1	-4.053224	2.672093	0.763488		6	1.255586	0.676151	-0.363349
	1	-1.737159	2.633449	-0.043818		1	0.884265	-0.264843	-0.769852
	28	0.138383	-0.035841	-0.418337		6	2.002403	1.511758	-1.190473
	15	1.664231	1.594407	-0.003479		1	2.202419	2.529980	-0.852366
	6	2.112104	3.075820	-0.995216		6	2.829649	0.953020	-2.194598
	1	2.950170	3.619834	-0.548983		1	2.466863	0.094135	-2.763037
	1	2.380798	2.772023	-2.009764		1	3.525900	1.598657	-2.722677
	1	1.246676	3.740813	-1.056690		6	-1.866969	1.163300	-0.016989
	6	1.445677	2.339330	1.667113		1	-2.866530	0.929342	0.375205
	1	0.548513	2.964296	1.666765		6	-1.806148	2.668710	-0.261010
	1	1.301932	1.549183	2.409105		6	-2.550121	3.546182	0.535394
	1	2.309107	2.948628	1.953004		6	-0.976072	3.201802	-1.252041
	6	3.308728	0.745520	0.180771		6	-2.451046	4.928703	0.362663
	1	3.716404	0.610316	-0.828617		1	-3.235672	3.147572	1.280547
	1	4.014593	1.374611	0.735436		6	-0.871455	4.581367	-1.425721
	6	3.126620	-0.618706	0.863395		1	-0.432371	2.516448	-1.896305



	1	4.057415	-1.197618	0.845220		6	-1.603754	5.451858	-0.614287
	1	2.848972	-0.480065	1.915572		1	-3.042714	5.594401	0.985234
	15	1.743122	-1.562359	0.053694		1	-0.222313	4.980070	-2.201041
	6	1.610993	-3.040759	1.137134		1	-1.525309	6.526608	-0.752353
	1	2.583891	-3.517960	1.290404		7	-1.510706	0.351215	-1.172777
	1	1.197207	-2.747781	2.105205		16	-2.690560	0.047412	-2.160007
	1	0.927747	-3.761331	0.680335		8	-2.125581	-0.516859	-3.408722
	6	2.597682	-2.266402	-1.418135		8	-3.645075	1.171678	-2.350710
	1	1.920716	-2.950976	-1.935702		6	-3.719125	-1.275907	-1.490134
	1	2.857028	-1.463145	-2.112941		6	-4.818070	-0.975320	-0.685954
	1	3.507220	-2.805792	-1.135385		6	-5.590532	-2.011171	-0.158187
						6	-5.290396	-3.350047	-0.435078
						6	-4.187120	-3.629952	-1.251654
						6	-3.398658	-2.604390	-1.770520
						1	-6.448856	-1.772166	0.466138
						1	-5.083046	0.061050	-0.494870
						1	-3.942006	-4.663914	-1.485947
						1	-2.549261	-2.828762	-2.410103
						6	-6.113055	-4.467268	0.157457
						1	-5.673207	-4.810162	1.099670
						1	-7.133243	-4.139497	0.368093
						1	-6.157815	-5.325460	-0.516792
						28	3.245134	0.027894	-0.468469
						15	5.354302	-0.525252	-0.992943
						15	3.452933	-1.255936	1.411988
						6	5.809454	-1.221684	-2.617097
						1	6.870800	-1.483502	-2.640932
						1	5.210784	-2.112972	-2.816328
						1	5.603441	-0.482378	-3.394679
						6	6.501584	0.884414	-0.777792
						1	6.266105	1.656629	-1.514070
						1	6.379411	1.313472	0.219689
						1	7.538155	0.561540	-0.908917
						6	5.927173	-1.765395	0.250252
						1	5.625226	-2.756062	-0.108429
						1	7.020288	-1.763044	0.319100
						6	2.874855	-0.825561	3.089710
						1	3.200929	0.183872	3.351193
						1	1.783877	-0.869753	3.109348
						1	3.277594	-1.534656	3.818935
						6	2.874132	-2.976651	1.173012
						1	3.240091	-3.366186	0.219603
						1	3.236319	-3.614417	1.984945
						1	1.783148	-2.980315	1.157186
						6	5.281474	-1.466714	1.611323
						1	5.679934	-0.535382	2.031091
						1	5.494656	-2.267369	2.328220
<b>R1</b>	6	0.219886	1.168703	1.551204	<b>TS3_la_cis</b>	6	-0.909931	2.086734	0.102510
	6	0.162863	0.107803	0.475359		6	-1.474182	3.138941	-0.844504
	6	-0.140790	1.585078	0.162787		6	0.153833	1.242744	-0.601676
	1	-0.576198	1.115788	2.286452		1	1.032848	1.865231	-0.775389
	1	1.204611	1.427554	1.921817		1	-0.222630	0.919582	-1.574771
	1	0.636101	2.070317	-0.419657		8	-1.167161	3.249563	-2.011726
	6	1.452463	-0.481572	0.015385		6	-0.258504	2.790586	1.303101
	8	1.651812	-1.670167	-0.135037		8	0.924207	3.067660	1.341317
	8	2.395599	0.451343	-0.162936		8	-1.108971	3.081954	2.282747
	6	3.696027	-0.043615	-0.525919		6	-0.537016	3.750480	3.420281
	1	4.327185	0.837038	-0.613738		1	0.233259	3.123085	3.869796
	1	4.069805	-0.712183	0.250095		1	-0.104902	4.703372	3.113331
	1	3.639682	-0.575802	-1.475716		1	-1.361990	3.904041	4.111214
	6	-1.021456	-0.812512	0.473641		8	-2.379490	3.910061	-0.238298
	8	-1.793626	-0.939492	1.402679		6	-3.053404	4.857408	-1.085775
	8	-1.176241	-1.419180	-0.703012		1	-3.586750	4.326162	-1.876011
	6	-2.315581	-2.291418	-0.804060		1	-3.748475	5.384832	-0.437235
	1	-2.277438	-2.703927	-1.809044		1	-2.331422	5.547148	-1.523881
	1	-2.245879	-3.083374	-0.057778		6	0.555129	0.040380	0.229564
	1	-3.233325	-1.721911	-0.653324		1	1.035435	0.248963	1.184536
	6	-1.532494	1.973805	-0.170040		7	-1.231364	0.063849	1.163356
	6	-1.838201	2.807143	-1.166318		6	-2.034792	1.123369	0.588921
	1	-2.324287	1.562693	0.456393		1	-2.627626	1.641636	1.349418
	1	-2.868121	3.082367	-1.370633		6	0.886834	-1.176227	-0.397750
	1	-1.068790	3.240923	-1.800672		6	1.671226	-2.190149	0.277944
						6	-2.970143	0.705430	-0.539220
						6	-4.212024	1.334545	-0.672420
						6	-2.630939	-0.315271	-1.434452
						6	-5.096652	0.958776	-1.685838
						1	-4.496422	2.112869	0.033518
						6	-3.511894	-0.696031	-2.444001
						1	-1.691032	-0.846762	-1.309560

						6	-4.747985	-0.058143	-2.574995
						1	-6.061007	1.452078	-1.771732
						1	-3.240973	-1.503812	-3.119073
						1	-5.439116	-0.361162	-3.356703
						16	-1.882716	-1.012388	2.125507
						8	-2.878807	-0.410079	3.038359
						8	-0.782850	-1.767507	2.750949
						6	-2.792361	-2.175669	1.115407
						6	-2.073843	-3.108842	0.371103
						6	-2.750020	-3.910992	-0.545914
						6	-4.133254	-3.785908	-0.730601
						6	-4.833518	-2.855776	0.046646
						6	-4.171620	-2.048316	0.969441
						1	-2.193701	-4.638319	-1.133114
						1	-0.995608	-3.185577	0.496042
						1	-5.908606	-2.750341	-0.081894
						1	-4.713240	-1.312888	1.557455
						6	-4.853314	-4.603139	-1.773317
						1	-5.829455	-4.934939	-1.411825
						1	-5.021834	-4.001963	-2.672818
						1	-4.273566	-5.482410	-2.061459
						28	2.891893	-0.848874	-0.346393
						15	4.867556	-1.658322	0.306390
						15	4.009952	0.961048	-1.255547
						6	5.698192	0.870105	-0.494843
						6	6.183199	-0.586472	-0.435847
						6	5.431939	-3.363307	-0.039146
						1	6.456018	-3.518074	0.312130
						1	4.766832	-4.067132	0.466826
						1	5.384529	-3.554790	-1.113335
						6	5.152414	-1.487229	2.109937
						1	4.453334	-2.134164	2.645518
						1	6.177455	-1.762835	2.374427
						1	4.964598	-0.455785	2.418544
						6	4.374517	0.772720	-3.045957
						1	3.452527	0.907660	-3.616887
						1	5.114025	1.508007	-3.376958
						1	4.750628	-0.233481	-3.247459
						6	3.594036	2.741632	-1.124440
						1	4.451573	3.359809	-1.406934
						1	2.762721	2.972671	-1.796079
						1	3.285657	2.982749	-0.104345
						1	6.379757	-0.963035	-1.446624
						1	7.118211	-0.668350	0.129128
						1	5.620751	1.289058	0.515748
						1	6.401972	1.495691	-1.055419
						1	0.501708	-1.357994	-1.400962
						1	1.715428	-3.177333	-0.181378
						1	1.605523	-2.222135	1.367227
COD	6	0.571033	-1.224539	-0.615299	P1_cis	6	-2.192783	-0.530145	0.396175
	6	1.892525	-0.753818	-0.055643		6	-1.441299	-0.717087	1.723613
	6	-1.692910	0.612034	0.421690		1	-1.262895	0.260374	2.179133
	6	1.561129	0.621772	0.603293		1	-1.982248	-1.347957	2.431262
	6	-0.691028	1.459578	-0.344251		6	-2.708612	-1.902602	-0.042972
	6	0.652182	1.475019	-0.267611		6	-3.382269	0.416781	0.426346
	1	2.645972	-0.639587	-0.838982		8	-4.251145	0.405325	-0.420757
	1	1.061915	0.415808	1.555249		8	-3.323901	1.285264	1.429243
	1	-1.419054	0.568128	1.482136		6	-4.315235	2.329433	1.402012
	1	-1.132571	2.131633	-1.079915		1	-5.313937	1.896476	1.462683
	1	0.363926	-0.976917	-1.655645		1	-4.106185	2.949737	2.269748
	1	2.295029	-1.429081	0.705328		1	-4.209721	2.902906	0.479414
	1	-2.674854	1.092232	0.369707		8	-3.617665	-2.467486	0.526357
	1	2.480344	1.172285	0.828229		8	-2.018563	-2.429164	-1.051644
	1	1.164481	2.154891	-0.948878		6	-2.393818	-3.764458	-1.440176
	6	-0.462397	-1.441764	0.203883		1	-1.710162	-4.033265	-2.241150
	1	-0.256331	-1.616684	1.263183		1	-2.282457	-4.438860	-0.590712
	6	-1.810221	-0.858175	-0.099248		1	-3.427003	-3.770405	-1.787747
	1	-2.013764	-0.855400	-1.174456		6	-0.119033	-1.350913	1.277342
	1	-2.636971	-1.357950	0.413158		1	-0.252095	-2.423329	1.084637
						6	1.000715	-1.156622	2.258250
						1	1.249737	-0.124171	2.507905
						6	1.660568	-2.169979	2.817418
						1	1.428518	-3.201917	2.562187
						1	2.453503	-1.997893	3.539187
						6	-1.081271	0.021376	-0.549795
						7	0.123524	-0.639813	-0.006045
						1	-1.274364	-0.308920	-1.571132
						6	-0.968289	1.534626	-0.534261
						6	-1.761435	2.277925	-1.415671

					6	-0.131657	2.205174	0.361363	
					6	-1.737198	3.672114	-1.384908	
					1	-2.402797	1.763422	-2.128787	
					6	-0.104073	3.599795	0.391253	
					1	0.514293	1.637020	1.026494	
					6	-0.911509	4.336729	-0.476334	
					1	-2.357152	4.237922	-2.074635	
					1	0.551736	4.110161	1.091028	
					1	-0.889021	5.422516	-0.453106	
					6	1.253200	-1.264370	-1.047467	
					8	0.881272	-0.804438	-2.384912	
					8	1.412220	-2.694832	-0.794520	
					6	2.765418	-0.461798	-0.580144	
					6	3.756122	-1.180666	0.077868	
					6	2.915370	0.894814	-0.876617	
					6	4.925409	-0.518230	0.454245	
					1	3.612730	-2.234743	0.295928	
					6	4.084793	1.536660	-0.490069	
					1	2.131876	1.436316	-1.402343	
					6	5.103473	0.840709	0.180983	
					1	5.706944	-1.071205	0.969254	
					1	4.213506	2.593155	-0.714456	
					6	6.364803	1.559575	0.586620	
					1	7.042115	0.898722	1.129957	
					1	6.889778	1.940200	-0.293724	
					1	6.132540	2.415736	1.225358	
COM1_I	6	3.457527	0.621507	0.960115	TS2_Ia_trans	6	-1.874697	-0.695426	1.105360
	6	2.005443	0.910102	-1.201801		6	-2.719315	0.098319	2.005014
	6	2.936635	0.080133	-0.324804		6	-0.420610	-0.234762	1.119834
	1	2.104458	0.725407	-2.266177		1	0.076693	-0.733240	1.963405
	1	1.888495	1.945832	-0.901076		1	-0.387682	0.835326	1.333479
	8	3.960341	-0.048139	1.841469		8	-2.303111	1.017851	2.711113
	6	3.714328	-0.954259	-1.047536		6	-1.987590	-2.146517	1.113690
	8	3.283993	-1.551790	-2.020487		8	-1.040866	-2.902490	0.875027
	8	4.949129	-1.149803	-0.569305		8	-3.209888	-2.655122	1.395819
	6	5.732501	-2.126257	-1.275325		6	-3.291263	-4.082886	1.379615
	1	5.865338	-1.821562	-2.313992		1	-2.649753	-4.512052	2.152042
	1	6.688623	-2.159356	-0.758483		1	-4.335451	-4.317809	1.581505
	1	5.241236	-3.099108	-1.239471		1	-2.992852	-4.474213	0.404886
	6	-4.545428	-0.099867	-0.299975		8	-4.033384	-0.211050	1.984401
	6	-3.843262	0.429915	-1.560031		6	-4.869270	0.634375	2.780893
	28	-1.344396	-0.103603	0.531705		1	-4.788808	1.665946	2.434609
	15	-2.218832	1.207692	-1.102901		1	-5.881546	0.258458	2.640990
	15	-3.366904	-1.121825	0.711558		1	-4.584833	0.574256	3.833110
	6	-1.455726	1.533947	-2.739920		6	0.364885	-0.503513	-0.140930
	1	-2.143891	2.060004	-3.408795		1	0.346088	-1.532039	-0.512653
	1	-0.558033	2.141800	-2.600399		6	0.748992	0.515112	-1.011640
	1	-1.157527	0.588349	-3.199422		1	0.606828	1.547489	-0.694081
	6	-2.739735	2.895337	-0.587797		6	1.681379	0.241017	-2.041321
	1	-3.329318	3.388516	-1.366760		1	1.617700	-0.707714	-2.579316
	1	-3.333176	2.834734	0.328272		1	2.103385	1.068244	-2.605928
	1	-1.852508	3.496668	-0.373490		6	-2.861064	-0.085334	-0.868040
	6	-3.461564	-2.752095	-0.136804		7	-2.272416	0.993558	-1.385627
	1	-3.027319	-2.674389	-1.137021		16	-2.820569	2.448838	-0.901482
	1	-2.877738	-3.484951	0.425840		8	-3.716331	2.375681	0.266170
	1	-4.495370	-3.101600	-0.219431		8	-3.341739	3.161406	-2.082004
	1	-5.329944	-1.845788	1.998010		6	-1.327899	3.292205	-0.424866
	1	-3.803269	-2.153119	2.863712		6	-0.515824	3.834249	-1.423513
	1	-4.459401	-0.510346	2.795208		6	0.709225	4.388051	-1.068222
	1	-3.623817	-0.396853	-2.246742		6	1.129505	4.412781	0.271009
	1	-4.480432	1.140643	-2.098774		6	0.281307	3.887531	1.251033
	1	-4.869809	0.736846	0.331006		6	-0.951945	3.324787	0.913023
	1	-5.439980	-0.677709	-0.559308		1	1.352949	4.803526	-1.840595
	8	3.248942	1.941492	1.087312		1	-0.835857	3.807488	-2.461581
	6	3.563450	2.489759	2.375999		1	0.587325	3.908735	2.294435
	1	3.302652	3.543907	2.317270		1	-1.597585	2.887361	1.671255
	1	2.975605	1.988598	3.146856		6	2.468905	5.004286	0.630988
	1	4.625993	2.366689	2.588505		1	2.672173	4.906911	1.698824
	6	-4.341578	-1.440405	2.234257		1	3.271862	4.505519	0.081070
	6	0.544944	0.224047	0.834362		1	2.504638	6.065898	0.371298
	6	0.037190	-0.803446	1.703828		28	2.444803	-0.386634	-0.293628
	6	1.375736	-0.123146	-0.352107		15	4.597618	-0.532379	-0.905781
	1	1.132616	-1.058506	-0.851558		15	3.006923	-1.326279	1.693971
	1	0.739362	1.214621	1.250941		6	5.071169	-1.104165	-2.572799
	1	0.314458	-1.840879	1.507954		1	6.155298	-1.225278	-2.648028
	1	-0.090173	-0.581291	2.763009		1	4.583766	-2.057999	-2.785660
						1	4.738488	-0.370896	-3.311199
						6	5.577609	0.994470	-0.666570
						1	5.231398	1.755328	-1.370416

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						6	5.429718	1.923605	-2.744408
						1	5.019943	1.453464	-3.641537
						1	4.842514	2.819348	-2.528004
						1	6.470085	2.207563	-2.925781
						6	6.105869	1.653329	0.063826
						1	6.496220	0.901810	0.759521
						1	6.958068	2.243744	-0.289337
						6	2.395731	2.753930	1.884675
						1	2.034049	3.452061	1.126196
						1	1.545911	2.215867	2.310904
						1	2.901341	3.312267	2.677979
						6	4.075782	0.515098	2.549048
						1	4.831314	-0.205604	2.226088
						1	4.492825	1.142456	3.342511
						1	3.210698	-0.032144	2.926860
						6	5.063577	2.540531	0.761085
						1	4.767003	3.372081	0.110809
						1	5.472043	2.972451	1.681401
						1	-2.428861	-1.673638	0.981851
						6	-0.705769	-2.596132	0.164117
						6	-0.346068	-3.326243	1.304414
						6	-0.210798	-3.014370	-1.074697
						6	0.534854	-4.406240	1.218694
						1	-0.777930	-3.070767	2.268773
						6	0.668357	-4.092894	-1.166661
						1	-0.521226	-2.472514	-1.962341
						6	1.057462	-4.786005	-0.018051
						1	0.800764	-4.957279	2.116779
						1	1.051235	-4.393814	-2.138490
						1	1.743595	-5.625444	-0.088572
INT1_I	6	3.837067	1.151433	-0.321396	TS3_Ia_trans	6	-1.406566	-1.319206	0.678494
	6	1.619218	0.004489	-0.781533		6	-1.928002	-1.717050	2.054560
	6	3.049443	-0.034568	-0.289162		6	-0.055349	-0.626086	0.925923
	1	1.335628	-1.017832	-1.046862		1	0.659213	-1.375960	1.274325
	1	1.526049	0.617762	-1.682833		1	-0.180238	0.111191	1.728225
	8	5.001087	1.356332	0.051349		8	-1.428042	-2.613338	2.703664
	6	3.457396	-1.263569	0.302064		6	-1.203365	-2.592363	-0.140019
	8	2.722101	-2.264977	0.419184		8	-0.261937	-2.781340	-0.883066
	8	4.745165	-1.330202	0.763211		8	-2.196392	-3.463825	0.029452
	6	5.108384	-2.574541	1.359433		6	-2.157045	-4.625128	-0.816098
	1	5.024205	-3.393541	0.642042		1	-1.251263	-5.200053	-0.619489
	1	6.144849	-2.457090	1.674258		1	-3.044813	-5.199258	-0.562474
	1	4.476358	-2.796020	2.222026		1	-2.184184	-4.317238	-1.862909
	6	-3.404908	-1.995065	-0.423965		8	-2.905304	-0.935562	2.509631
	6	-4.298201	-0.756671	-0.592222		6	-3.372314	-1.232968	3.838800
	28	-1.396565	0.536947	0.181778		1	-3.757603	-2.252084	3.875317
	15	-3.630030	0.639754	0.418410		1	-2.555639	-1.119826	4.552259
	15	-1.629222	-1.540045	-0.680054		1	-4.161999	-0.512341	4.036070
	6	-4.601021	2.097173	-0.098600		6	0.496234	0.082215	-0.293769
	1	-5.672718	1.899057	-0.010705		1	0.751189	-0.542711	-1.144861
	1	-4.338647	2.946335	0.536612		6	1.240628	1.264147	-0.099108
	1	-4.361962	2.349989	-1.133586		1	1.052386	1.832083	0.811568
	6	-4.230696	0.295196	2.112861		6	2.190570	1.758140	-1.074221
	1	-5.320440	0.204544	2.125951		6	-2.292688	-0.295902	-0.107273
	1	-3.785860	-0.629868	2.487352		7	-1.362907	0.274696	-1.074576
	1	-3.927751	1.110956	2.773748		16	-1.777330	1.658616	-1.761455
	6	-1.391074	-1.668432	-2.490181		8	-3.134221	1.609329	-2.340106
	1	-2.034806	-0.946535	-2.998912		8	-0.688986	2.037691	-2.675348
	1	-0.352887	-1.435886	-2.738417		6	-1.864068	2.925717	-0.497439
	1	-1.630202	-2.676648	-2.839831		6	-0.767228	3.756074	-0.271381
	1	-0.929657	-3.865598	-0.502794		6	-0.832452	4.709225	0.742736
	1	0.392917	-2.741315	-0.054922		6	-1.977545	4.842521	1.538355
	1	-0.937344	-3.039257	1.075972		6	-3.070272	4.004536	1.285980
	1	-4.303015	-0.425276	-1.637550		6	-3.024761	3.053709	0.267391
	1	-5.334691	-0.975226	-0.312928		1	0.020140	5.362154	0.917103
	1	-3.492844	-2.392686	0.593981		1	0.119717	3.652703	-0.889386
	1	-3.703833	-2.793456	-1.111591		1	-3.972515	4.101840	1.885504
	8	3.124264	2.206623	-0.868349		1	-3.891149	2.431550	0.054673
	6	3.816085	3.449039	-0.918990		6	-2.046307	5.896991	2.614768
	1	3.116680	4.160651	-1.357525		1	-2.746511	5.612829	3.402946
	1	4.106217	3.777556	0.081501		1	-1.065941	6.064845	3.065827
	1	4.713048	3.375413	-1.538270		1	-2.385381	6.848885	2.194986
	6	-0.682538	-2.935998	0.018085		6	-3.529390	-0.932935	-0.725412
	6	0.182400	1.847500	0.236995		6	-4.745930	-0.923279	-0.042302
	6	-0.855366	2.238962	1.112801		6	-3.451742	-1.569477	-1.968795
	6	0.674976	0.538331	0.273745		6	-5.867498	-1.559777	-0.581918
	1	0.349847	2.422043	-0.674155		1	-4.820926	-0.413738	0.915283
	1	-0.850758	1.875923	2.142447		6	-4.564105	-2.211751	-2.504894
	1	-1.350169	3.193154	0.957355		1	-2.512769	-1.544944	-2.517879

	1	0.706469	0.020822	1.239723		6	-5.777709	-2.213161	-1.810049
						1	-6.810397	-1.541278	-0.042219
						1	-4.490049	-2.706674	-3.469717
						1	-6.647847	-2.709718	-2.230318
						1	-2.615462	0.440504	0.642591
						15	3.637774	-1.525608	1.100073
						6	3.289683	-1.886834	2.863346
						1	3.795206	-2.803684	3.179765
						1	3.630860	-1.054137	3.482371
						1	2.213609	-2.007943	3.013521
						6	3.141032	-3.081685	0.261361
						1	2.050884	-3.173613	0.267080
						1	3.461361	-3.053779	-0.783744
						1	3.584599	-3.953458	0.751839
						6	5.488662	-1.586825	1.020846
						1	5.867091	-0.904267	1.791278
						1	5.849955	-2.591262	1.268274
						6	5.980673	-1.150114	-0.367880
						1	7.071148	-1.045073	-0.384189
						1	5.713962	-1.902185	-1.119930
						15	5.156284	0.433749	-0.861735
						6	5.597303	0.632927	-2.625320
						1	5.109865	-0.146529	-3.214978
						1	5.237726	1.603971	-2.974009
						1	6.679695	0.574990	-2.771024
						6	6.176388	1.713232	-0.033586
						1	5.810285	2.702643	-0.318390
						1	6.083636	1.616628	1.051064
						1	7.229179	1.621173	-0.316180
						28	3.054152	0.343777	-0.117863
						1	2.016383	1.495136	-2.118732
						1	2.555119	2.777032	-0.943447
<b>R2</b>	16	0.634903	1.701400	-0.130877	<b>P1_trans</b>	6	-1.303645	1.172281	0.196248
	8	0.465555	2.336681	1.178830		6	-1.083659	0.905252	1.694085
	8	0.874363	2.550563	-1.295667		6	0.150364	-0.018576	1.744967
	6	1.921182	0.491385	-0.018650		6	-1.010343	-0.209785	-0.453547
	6	2.254507	-0.030825	1.229236		1	-1.956466	0.380738	2.087164
	6	3.259312	-0.991910	1.301888		1	-0.936038	1.821669	2.266537
	6	3.924031	-1.429636	0.149373		1	0.032290	-0.769232	2.533742
	6	3.566697	-0.879887	-1.089287		6	-2.694016	1.665178	-0.186984
	6	2.565771	0.081805	-1.185086		6	-0.313093	2.208617	-0.342275
	1	1.746418	0.315882	2.125164		8	-2.908935	2.261180	-1.222780
	1	3.534825	-1.401491	2.270547		8	0.455131	2.030155	-1.261281
	1	4.082420	-1.203454	-1.990165		8	-3.627632	1.333119	0.694778
	1	2.296019	0.515500	-2.144258		8	-0.402523	3.347974	0.343639
	6	4.988856	-2.492702	0.233889		6	-4.982578	1.622986	0.300392
	1	5.761556	-2.337615	-0.521734		1	-5.212506	1.086755	-0.621824
	1	5.460054	-2.503459	1.218423		1	-5.603488	1.268977	1.119246
	1	4.549219	-3.479759	0.062142		1	-5.104841	2.696059	0.151883
	7	-0.699917	0.744551	-0.526620		6	0.467882	4.408388	-0.094303
	6	-1.630989	0.687505	0.358413		1	0.245676	4.663205	-1.130849
	1	-1.546238	1.226501	1.310769		1	0.259381	5.246522	0.565340
	6	-2.849287	-0.093504	0.141726		1	1.508127	4.092636	-0.004622
	6	-3.820501	-0.106765	1.151223		6	1.447303	0.720407	1.954405
	6	-3.053312	-0.818635	-1.043077		1	1.741577	1.435016	1.183595
	6	-4.992302	-0.841788	0.980742		6	2.223175	0.528442	3.020116
	1	-3.656218	0.457992	2.066440		1	1.960744	-0.200909	3.783944
	6	-4.222360	-1.550129	-1.208369		1	3.144167	1.087207	3.156871
	1	-2.292696	-0.798950	-1.818372		7	0.081180	-0.671512	0.416098
	6	-5.191282	-1.561855	-0.197331		16	1.074127	-1.907610	-0.001058
	1	-5.745816	-0.852930	1.762329		8	1.224088	-2.795147	1.150452
	1	-4.385859	-2.113322	-2.122296		8	0.541860	-2.432891	-1.257396
	1	-6.103999	-2.135466	-0.332080		6	2.661874	-1.177908	-0.314960
						6	3.747888	-1.511292	0.485718
						6	2.771498	-0.253030	-1.354832
						6	4.976386	-0.899480	0.235827
						1	3.629457	-2.221959	1.298150
						6	4.001470	0.351261	-1.582578
						1	1.907570	0.005454	-1.962141
						6	5.118822	0.036750	-0.792723
						1	5.831975	-1.150522	0.857800
						1	4.097966	1.079966	-2.384235
						1	-0.648324	-0.060838	-1.474120
						6	-2.221003	-1.123846	-0.461822
						6	-3.113705	-1.052463	-1.536054
						6	-2.497070	-1.985809	0.601665
						6	-4.281335	-1.815328	-1.535573
						1	-2.895102	-0.397551	-2.377833
						6	-3.663280	-2.751436	0.601757

				1	-1.796546	-2.073279	1.429974
				6	-4.561988	-2.662734	-0.462163
				1	-4.967503	-1.752385	-2.375549
				1	-3.868496	-3.419823	1.433154
				1	-5.469590	-3.259479	-0.461018
				6	6.446726	0.694674	-1.068483
				1	7.167800	0.481819	-0.277510
				1	6.862017	0.333543	-2.013685
				1	6.333905	1.778335	-1.152372
TS2_Ia_cis	6	-0.413735	-2.212708	-0.371174			
	6	0.686722	-1.882288	0.625635			
	6	0.979019	-0.409690	0.842073			
	6	-2.237893	-0.851966	0.108679			
	7	-1.853116	0.407745	0.258015			
	6	-1.025720	-3.509178	-0.124758			
	1	1.610669	-2.399084	0.328947			
	1	0.406043	-2.321738	1.587277			
	8	-0.736185	-4.239868	0.824788			
	6	-0.184218	-1.710952	-1.710908			
	8	0.729273	-0.920398	-1.979066			
	8	-1.031775	-2.122350	-2.678072			
	6	-0.773224	-1.573871	-3.975333			
	1	0.218647	-1.869838	-4.324146			
	1	-1.541799	-1.992032	-4.623979			
	1	-0.847171	-0.486814	-3.942766			
	8	-2.015878	-3.868683	-0.979602			
	6	-2.614505	-5.139336	-0.708372			
	1	-3.038442	-5.159738	0.297864			
	1	-3.396716	-5.259398	-1.456650			
	1	-1.876165	-5.938522	-0.800715			
	1	0.628758	0.297969	0.091521			
	6	1.340832	0.082290	2.091229			
	1	1.548771	-0.629564	2.892569			
	6	1.839680	1.407053	2.204522			
	1	1.368476	2.194199	1.611106			
	1	2.265519	1.731548	3.150252			
	1	-2.667320	-1.203949	-0.834935			
	6	-2.634932	-1.574865	1.337934			
	6	-3.626303	-2.559443	1.268461			
	6	-2.065080	-1.253652	2.577234			
	6	-4.040182	-3.222522	2.423976			
	1	-4.081986	-2.795102	0.309609			
	6	-2.469322	-1.926567	3.726917			
	1	-1.311698	-0.471529	2.623303			
	6	-3.457712	-2.913395	3.653554			
	1	-4.817133	-3.979818	2.363282			
	1	-2.019448	-1.679708	4.684592			
	1	-3.775501	-3.433281	4.552982			
	16	-1.839627	1.371807	-1.060444			
	8	-2.200752	0.664977	-2.299867			
	8	-0.588865	2.147322	-1.059226			
	6	-3.155719	2.521241	-0.703255			
	6	-2.889084	3.654816	0.061717			
	6	-3.934180	4.523929	0.366727			
	6	-5.236788	4.273035	-0.082831			
	6	-5.474257	3.125542	-0.849750			
	6	-4.441277	2.244878	-1.163500			
	1	-3.733765	5.410750	0.963557			
	1	-1.878075	3.854293	0.406095			
	1	-6.479884	2.917375	-1.207623			
	1	-4.627630	1.358338	-1.763873			
	6	-6.354590	5.236927	0.226128			
	1	-6.195557	5.730504	1.187124			
	1	-6.409460	6.014381	-0.541817			
	1	-7.319792	4.727222	0.253011			
	28	2.869536	0.503289	0.757012			
	15	4.739371	1.714428	0.985439			
	15	3.800928	-0.452010	-1.098524			
	6	4.729272	3.535743	1.106788			
	1	5.749550	3.926538	1.151006			
	1	4.215253	3.959342	0.241396			
	1	4.190838	3.831110	2.010453			
	6	5.713179	1.183026	2.441894			
	1	5.158186	1.419297	3.352911			
	1	5.870750	0.102250	2.407354			
	1	6.682213	1.689464	2.465168			
	6	5.835817	1.326040	-0.451027			
	1	5.573191	2.014680	-1.262166			
	1	6.884389	1.510873	-0.194085			

	6	3.716795	-2.213802	-1.567149		
	1	4.006639	-2.840774	-0.720509		
	1	2.688881	-2.444627	-1.854310		
	1	4.385293	-2.413889	-2.409738		
	6	3.424212	0.438581	-2.652703		
	1	3.501951	1.517583	-2.495551		
	1	4.123560	0.138632	-3.439109		
	1	2.400689	0.198443	-2.945603		
	6	5.613927	-0.129361	-0.890887		
	1	5.994007	-0.823039	-0.131388		
	1	6.148661	-0.338875	-1.824033		

**Table S9.** The obtained first three frequencies for stationary points involved in the in situ generation of Ni(COD)L species from Ni(COD)<sub>2</sub> and different ligands (L), located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	Frequencies (cm <sup>-1</sup> )			Species	Frequencies (cm <sup>-1</sup> )		
Ni(COD) <sub>2</sub>	22.8713	27.8818	32.6631	Ni(COD)L2	5.8048	11.3558	24.9454
L1	33.5909	63.8877	97.0523	L3	8.6248	19.0564	19.2743
COD	173.3396	216.8396	250.5277	Ni(COD)L3	9.7773	16.0166	18.9368
Ni(COD)L1	27.8931	31.8640	45.4119	L4	171.9077	202.9274	203.5856
L2	34.1356	106.3449	174.1736	Ni(COD)L4	8.7920	21.3722	35.5136

**Table S10.** The obtained first three frequencies for stationary points on path I–V, located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	Frequencies (cm <sup>-1</sup> )			Species	Frequencies (cm <sup>-1</sup> )		
R1	30.1410	56.7118	71.6568	TS1_III	-270.5811	18.3453	24.1594
COM1_I	16.8189	20.7645	29.9219	INT1_III	16.3714	25.0348	29.4750
TS1_I	-269.5304	9.5773	22.0796	COM1_IV	24.7299	29.0911	36.2953
INT1_I	29.2897	31.5072	37.6732	TS1_IV	-261.5884	21.7493	33.5525
COM1_II	22.0812	27.0607	35.7736	INT1_IV	10.9783	27.4142	44.8299
TS1_II	-312.3191	26.5869	34.6298	TS1_V	-264.7088	26.2505	32.2656
INT1_II	22.3220	35.1128	39.7515	INT1_V	21.1496	28.3168	36.0724
COM1_III	12.2272	19.3584	31.5430				

**Table S11.** The obtained first three frequencies for stationary points on path I–III which involved in the [3+2] cycloaddition processes of INT1, located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	Frequencies (cm <sup>-1</sup> )			Species	Frequencies (cm <sup>-1</sup> )		
R2	23.2952	23.9867	24.9908	TS2_Ic_cis	-281.3409	7.9241	14.6283
TS2_Ia_cis	-262.5137	9.1686	13.2957	TS2_Ila_cis	-284.2588	8.8482	19.0541
INT2_Ia_cis	5.5435	12.5121	13.9402	INT2_Ila_cis	11.7268	18.8390	23.1010
TS3_Ia_cis	-198.8620	13.1535	16.6380	TS3_Ila_cis	-218.4907	12.0608	15.4206
P1_cis	12.5606	14.6392	21.6091	TS2_Ilb_cis	-314.8869	15.7987	18.7782
TS2_Ia_trans	-261.3073	11.6347	17.0219	TS2_Illa_cis	-293.0494	12.8278	16.4586



INT2_Ia_trans	8.5395	13.5422	14.8008	TS2_IIIb_cis	-238.5826	10.0410	17.4573
TS3_Ia_trans	-213.9049	8.8785	13.1672	INT2_IIIb_cis	14.2089	17.9133	23.4340
P1_trans	16.0218	18.7939	22.0103	TS3_IIIb_cis	-211.1519	9.8321	12.2786
TS2_Ib_cis	-275.3664	14.2856	14.4984				

**Table S12.** The obtained first three frequencies for stationary points on paths **Ia\_L2**, **Ila\_L2**, **Ia\_L3**, **Ila\_L3**, **Ia\_L4** and **Ila\_L4** which involved in the [3+2] cycloaddition processes of **INT1**, located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	Frequencies (cm <sup>-1</sup> )			Species	Frequencies (cm <sup>-1</sup> )		
COM1_I_L2	10.2161	13.3376	18.1520	TS2_Ia_trans_L3	-247.9581	3.6085	7.1601
TS1_I_L2	-239.4925	15.3708	19.9849	INT2_Ia_trans_L3	-6.7551	11.4418	14.3160
INT1_I_L2	2.5679	24.1027	32.3459	TS3_Ia_trans_L3	-138.2515	7.6653	12.2840
TS2_Ia_cis_L2	-305.9289	11.1613	18.1267	TS2_Ila_cis_L3	-251.5458	10.7732	12.5354
INT2_Ia_cis_L2	12.0664	15.3512	16.0834	INT2_Ila_cis_L3	6.4608	12.5974	16.1767
TS3_Ia_cis_L2	-132.1124	10.6829	11.8851	TS3_Ila_cis_L3	-141.7516	10.8701	13.7947
TS2_Ia_trans_L2	-305.0275	12.7984	15.0575	TS2_Ila_trans_L3	-252.8064	8.1107	9.6582
INT2_Ia_trans_L2	6.3830	15.0638	20.4775	INT2_Ila_trans_L3	8.4710	13.8236	16.4908
TS3_Ia_trans_L2	-128.5233	11.1196	11.4096	TS3_Ila_trans_L3	-227.7980	9.7329	11.4143
COM1_II_L2	7.7438	21.0233	32.0016	COM1_I_L4	11.9632	16.9956	23.3958
TS1_II_L2	-294.3457	8.4043	22.2773	TS1_I_L4	-245.7948	9.4260	24.1691
INT1_II_L2	12.5885	25.7222	26.2036	INT1_I_L4	21.8229	32.2218	47.7085
TS2_Ila_cis_L2	-72.7926	12.4357	21.0216	COM1_II_L4	19.7907	27.4818	39.1077
INT2_Ila_cis_L2	11.0712	17.2718	20.4846	TS1_II_L4	-294.2437	17.7245	22.5797
TS3_Ila_cis_L2	-259.6790	9.6863	13.4996	INT1_II_L4	19.6417	25.8507	52.3203
TS2_Ila_trans_L2	-232.3069	7.5796	16.1581	TS2_Ia_cis_L4	-302.3132	15.4612	19.4605
INT2_Ila_trans_L2	10.7922	14.1412	16.0422	INT2_Ia_cis_L4	11.1390	17.0706	21.1420
TS3_Ila_trans_L2	-249.0089	7.9039	10.2847	TS3_Ia_cis_L4	-126.9718	4.9382	12.7858
COM1_I_L3	11.5908	17.4884	19.2165	TS2_Ia_trans_L4	-305.4492	15.2697	15.8154
TS1_I_L3	-278.1001	10.0358	12.5145	INT2_Ia_trans_L4	11.1961	15.0695	19.4626
INT1_I_L3	12.3938	18.5305	21.0984	TS3_Ia_trans_L4	-135.7938	10.8308	14.7792
COM1_II_L3	10.9891	12.8320	17.7742	TS2_Ila_cis_L4	-75.2820	19.0115	24.9496
TS1_II_L3	-285.0901	14.7490	19.4730	INT2_Ila_cis_L4	17.3703	22.4595	24.5083
INT1_II_L3	8.8761	13.7710	20.2645	TS3_Ila_cis_L4	-272.7648	12.0877	14.4791
TS2_Ia_cis_L3	-221.9395	6.8750	13.8019	TS2_Ila_trans_L4	-231.8553	14.2297	16.4726
INT2_Ia_cis_L3	9.4870	12.7567	16.3549	INT2_Ila_trans_L4	2.8772	14.5506	21.9272
TS3_Ia_cis_L3	-168.9985	9.0470	11.6322	TS3_Ila_trans_L4	-253.2866	10.4323	10.5821

**Table S13.** The obtained first three frequencies for stationary points on paths **I**, **Ia\_cis\_L1** and **Ia\_trans\_L1**, located at IDSCRF(ACN)–B3LYP–D3/DGDZVP level.

Species	Frequencies (cm <sup>-1</sup> )			Species	Frequencies (cm <sup>-1</sup> )		
<b>Ni(COD)L1</b>	26.9637	33.0614	42.0395	<b>INT2_Ia_cis</b>	10.7266	18.7704	26.6248
<b>R1</b>	29.2256	55.3415	70.2947	<b>TS3_Ia_cis</b>	−139.9600	13.8049	18.7490
<b>COD</b>	184.9459	226.2823	260.6152	<b>P1_cis</b>	11.2262	12.1905	20.5612
<b>COM1_I</b>	16.3162	19.8730	30.0316	<b>TS2_Ia_trans</b>	−216.1134	20.4111	23.4629
<b>TS1_I</b>	−271.3087	17.5720	22.5873	<b>INT2_Ia_trans</b>	12.7197	20.0770	25.8704
<b>INT1_I</b>	21.2599	31.7876	40.4419	<b>TS3_Ia_trans</b>	−155.2856	13.3438	16.9818
<b>R2</b>	23.0727	25.4304	26.7854	<b>P1_trans</b>	14.4926	23.1768	32.7437
<b>TS2_Ia_cis</b>	−230.8905	11.1627	20.4451				

**Table S14.** The obtained first three frequencies for stationary points on paths **I**, **Ia\_cis\_L1** and **Ia\_trans\_L1**, located at IDSCRF(ACN)–M06–2X/DGDZVP level.

Species	Frequencies (cm <sup>-1</sup> )			Species	Frequencies (cm <sup>-1</sup> )		
<b>Ni(COD)L1</b>	30.3792	33.4275	43.0094	<b>INT2_Ia_cis</b>	12.8732	19.2273	25.2740
<b>R1</b>	38.6772	54.1391	69.5369	<b>TS3_Ia_cis</b>	−314.3975	14.6440	19.7988
<b>COD</b>	185.3540	225.7504	257.1785	<b>P1_cis</b>	13.1133	20.6347	24.4726
<b>COM1_I</b>	12.9454	19.5255	24.5787	<b>TS2_Ia_trans</b>	−246.3956	16.6547	23.4757
<b>TS1_I</b>	−367.3966	17.0903	23.3444	<b>INT2_Ia_trans</b>	11.5348	16.8600	26.5693
<b>INT1_I</b>	14.9462	26.8768	36.4555	<b>TS3_Ia_trans</b>	−318.8902	13.5816	19.6617
<b>R2</b>	20.1616	23.3017	32.0293	<b>P1_trans</b>	11.2100	26.5022	27.9589
<b>TS2_Ia_cis</b>	−219.0573	14.5079	21.1868				

**Table S15.** The total energies (*E*: a.u.), zero-point energies (*ZPE*: kcal·mol<sup>-1</sup>) and Gibbs free energies [*G* and *G*(sol,303K): a.u.] for stationary points involved in the in situ generation of Ni(COD)L species from Ni(COD)<sub>2</sub> and different ligands (**L**), located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	<i>E</i>	<i>ZPE</i>	<i>G</i>	<i>G</i> (sol,303K)
<b>Ni(COD)<sub>2</sub></b>	−2132.18700	226.51781	−2131.87233	−2131.86253
<b>L1</b>	−920.97108	130.69187	−920.80235	−920.79292
<b>COD</b>	−312.03522	112.77990	−311.88644	−311.87580
<b>Ni(COD)L1</b>	−2741.15413	245.04288	−2740.81487	−2740.80549
<b>L2</b>	−652.83603	104.42207	−652.70492	−652.69112
<b>Ni(COD)L2</b>	−2472.99732	218.51060	−2472.70206	−2472.69232
<b>L3</b>	−1687.95367	264.14862	−1687.59488	−1687.58493
<b>Ni(COD)L3</b>	−3508.13572	378.61976	−3507.60461	−3507.59511
<b>L4</b>	−461.08968	70.85205	−461.00612	−460.99666
<b>Ni(COD)L4</b>	−2281.25190	185.20107	−2281.00385	−2280.99431

**Table S16.** The total energies ( $E$ : a.u.), zero-point energies ( $ZPE$ : kcal·mol<sup>-1</sup>) and Gibbs free energies [ $G$  and  $G(\text{sol},303\text{K})$ : a.u.] for stationary points on path I–V, located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	$E$	$ZPE$	$G$	$G(\text{sol},303\text{K})$
<b>R1</b>	–651.13816	125.54497	–650.98023	–650.97023
<b>COM1_I</b>	–3080.26233	258.10267	–3079.91335	–3079.90513
<b>TS1_I</b>	–3080.26042	257.57441	–3079.91222	–3079.90363
<b>INT1_I</b>	–3080.28446	258.74579	–3079.93215	–3079.92374
<b>COM1_II</b>	–3080.25890	258.36126	–3079.90797	–3079.89947
<b>TS1_II</b>	–3080.24850	257.89143	–3079.89704	–3079.88835
<b>INT1_II</b>	–3080.27951	258.71407	–3079.92655	–3079.91806
<b>COM1_III</b>	–3080.20996	257.50378	–3079.86258	–3079.85442
<b>TS1_III</b>	–3080.19951	256.51959	–3079.85230	–3079.84404
<b>INT1_III</b>	–3080.20741	256.52286	–3079.86122	–3079.85283
<b>COM1_IV</b>	–3080.24098	257.90900	–3079.89069	–3079.88198
<b>TS1_IV</b>	–3080.20218	256.21179	–3079.85421	–3079.84564
<b>INT1_IV</b>	–3080.26226	258.16466	–3079.91156	–3079.90290
<b>TS1_V</b>	–3080.21859	256.61675	–3079.86968	–3079.86124
<b>INT1_V</b>	–3080.24370	257.36188	–3079.89424	–3079.88589

**Table S17.** The total energies ( $E$ : a.u.), zero-point energies ( $ZPE$ : kcal·mol<sup>-1</sup>) and Gibbs free energies [ $G$  and  $G(\text{sol},303\text{K})$ : a.u.] for stationary points on path I–III which involved in the [3+2] cycloaddition processes of **INT1**, located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	$E$	$ZPE$	$G$	$G(\text{sol},303\text{K})$
<b>R2</b>	–1144.70106	150.39290	–1144.50888	–1144.49825
<b>TS2_Ia_cis</b>	–4224.95899	410.07021	–4224.38997	–4224.38199
<b>INT2_Ia_cis</b>	–4224.97921	411.66151	–4224.40919	–4224.40149
<b>TS3_Ia_cis</b>	–4224.96580	411.03482	–4224.39598	–4224.38854
<b>P1_cis</b>	–1795.86131	279.54113	–1795.48247	–1795.47347
<b>TS2_Ia_trans</b>	–4224.95733	410.19965	–4224.38686	–4224.37908
<b>INT2_Ia_trans</b>	–4224.97661	411.73440	–4224.40597	–4224.39787
<b>TS3_Ia_trans</b>	–4224.95962	411.07702	–4224.38893	–4224.38053
<b>P1_trans</b>	–1795.85905	279.50979	–1795.47978	–1795.47069
<b>TS2_Ib_cis</b>	–4224.91674	409.55339	–4224.34871	–4224.33996
<b>TS2_Ic_cis</b>	–4224.90808	409.02434	–4224.34065	–4224.33282
<b>TS2_IHa_cis</b>	–4224.94007	410.23452	–4224.36935	–4224.36108
<b>INT2_IHa_cis</b>	–4224.98029	411.81428	–4224.40719	–4224.39892
<b>TS3_IHa_cis</b>	–4224.94852	410.78682	–4224.37785	–4224.36987
<b>TS2_IHb_cis</b>	–4224.91324	410.13891	–4224.34193	–4224.33374
<b>TS2_IIa_cis</b>	–4224.87720	408.07865	–4224.31285	–4224.30491
<b>TS2_IIb_cis</b>	–4224.90525	409.02449	–4224.33719	–4224.32938
<b>INT2_IIb_cis</b>	–4224.92526	410.37016	–4224.35447	–4224.34717
<b>TS3_IIb_cis</b>	–4224.90188	409.63830	–4224.33426	–4224.32696

**Table S18.** The total energies ( $E$ : a.u.), zero-point energies ( $ZPE$ : kcal·mol<sup>-1</sup>) and Gibbs free energies [ $G$  and  $G(\text{sol},303\text{K})$ : a.u.] for stationary points on paths **Ia\_L2**, **IIa\_L2**, **Ia\_L3**, **IIa\_L3**, **Ia\_L4** and **IIa\_L4** which involved in the [3+2] cycloaddition processes of **INT1**, located at IDSCRF(ACN)–B3LYP/DGDZVP level.

Species	$E$	$ZPE$	$G$	$G(\text{sol},303\text{K})$
COM1_I_L2	-2812.08872	231.10882	-2811.78350	-2811.77434
TS1_I_L2	-2812.08234	230.63571	-2811.77549	-2811.76703
INT1_I_L2	-2812.13601	232.00615	-2811.82593	-2811.81662
TS2_Ia_cis_L2	-3956.81439	383.68927	-3956.28338	-3956.27492
INT2_Ia_cis_L2	-3956.82172	384.99576	-3956.28984	-3956.28127
TS3_Ia_cis_L2	-3956.78373	383.49901	-3956.25781	-3956.24976
TS2_Ia_trans_L2	-3956.80759	383.46128	-3956.27801	-3956.26903
INT2_Ia_trans_L2	-3956.81837	384.97806	-3956.28697	-3956.27926
TS3_Ia_trans_L2	-3956.78198	383.51041	-3956.25571	-3956.24810
COM1_II_L2	-2812.10055	231.55377	-2811.79095	-2811.78206
TS1_II_L2	-2812.08971	230.65009	-2811.78168	-2811.77301
INT1_II_L2	-2812.13501	232.09558	-2811.82342	-2811.81330
TS2_IIa_cis_L2	-3956.80948	382.99377	-3956.27891	-3956.27022
INT2_IIa_cis_L2	-3956.82502	384.96347	-3956.29212	-3956.28374
TS3_IIa_cis_L2	-3956.80130	384.17334	-3956.27133	-3956.26310
TS2_IIa_trans_L2	-3956.79862	382.86699	-3956.27040	-3956.26180
INT2_IIa_trans_L2	-3956.81832	384.57581	-3956.28762	-3956.27959
TS3_IIa_trans_L2	-3956.80196	384.05272	-3956.27369	-3956.26578
COM1_I_L3	-3847.24435	391.64902	-3846.70238	-3846.69390
TS1_I_L3	-3847.24116	391.09435	-3846.70040	-3846.69139
INT1_I_L3	-3847.26005	391.97963	-3846.71577	-3846.70746
COM1_II_L3	-3847.23655	391.73823	-3846.69309	-3846.68331
TS1_II_L3	-3847.22459	391.25696	-3846.68006	-3846.67088
INT1_II_L3	-3847.24957	391.82203	-3846.70584	-3846.69689
TS2_Ia_cis_L3	-4991.93331	543.29572	-4991.17070	-4991.16317
INT2_Ia_cis_L3	-4991.95487	545.01988	-4991.18648	-4991.18090
TS3_Ia_cis_L3	-4991.94519	544.52791	-4991.18160	-4991.17374
TS2_Ia_trans_L3	-4991.92871	543.21945	-4991.16887	-4991.16060
INT2_Ia_trans_L3	-4991.95296	545.09660	-4991.18519	-4991.17957
TS3_Ia_trans_L3	-4991.93662	544.37207	-4991.17346	-4991.16597
TS2_IIa_cis_L3	-4991.94366	543.63655	-4991.17988	-4991.17205
INT2_IIa_cis_L3	-4991.95469	545.18397	-4991.18805	-4991.17970
TS3_IIa_cis_L3	-4991.92401	544.62638	-4991.15725	-4991.14910
TS2_IIa_trans_L3	-4991.94397	543.57587	-4991.18241	-4991.17455
INT2_IIa_trans_L3	-4991.94957	545.19811	-4991.18284	-4991.17444
TS3_IIa_trans_L3	-4991.91806	544.20670	-4991.15457	-4991.14709
COM1_I_L4	-2620.34348	197.79746	-2620.08599	-2620.07726
TS1_I_L4	-2620.33730	197.26251	-2620.07942	-2620.07109

INT1_I_L4	-2620.39169	198.63547	-2620.12815	-2620.11937
COM1_II_L4	-2620.35482	198.01706	-2620.09309	-2620.08471
TS1_II_L4	-2620.34455	197.28991	-2620.08418	-2620.07490
INT1_II_L4	-2620.39150	198.66021	-2620.12798	-2620.11888
TS2_Ia_cis_L4	-3765.06938	350.30934	-3764.58679	-3764.57844
INT2_Ia_cis_L4	-3765.07727	351.64353	-3764.59373	-3764.58491
TS3_Ia_cis_L4	-3765.03877	350.25107	-3764.56126	-3764.55275
TS2_Ia_trans_L4	-3765.06244	350.14084	-3764.58064	-3764.57281
INT2_Ia_trans_L4	-3765.07370	351.63747	-3764.58991	-3764.58094
TS3_Ia_trans_L4	-3765.03699	350.20488	-3764.55862	-3764.55030
TS2_IIa_cis_L4	-3765.06667	349.57283	-3764.58445	-3764.57625
INT2_IIa_cis_L4	-3765.08099	351.62906	-3764.59553	-3764.58724
TS3_IIa_cis_L4	-3765.05808	350.52270	-3764.57704	-3764.56908
TS2_IIa_trans_L4	-3765.05499	349.54058	-3764.57470	-3764.56652
INT2_IIa_trans_L4	-3765.07461	351.18752	-3764.59354	-3764.58523
TS3_IIa_trans_L4	-3765.05702	350.73831	-3764.57642	-3764.56871

**Table S19.** The total energies ( $E$ : a.u.), zero-point energies ( $ZPE$ : kcal·mol<sup>-1</sup>) and Gibbs free energies [ $G$  and  $G(\text{sol},303\text{K})$ : a.u.] for stationary points on paths **I**, **Ia\_cis\_L1** and **Ia\_trans\_L1**, located at IDSCRF(ACN)–B3LYP–D3/DGDZVP level.

Species	$E$	$ZPE$	$G$	$G(\text{sol},303\text{K})$
Ni(COD)L1	-2741.21057	245.39722	-2740.87055	-2740.86137
R1	-651.16054	125.71882	-651.00219	-650.99301
COD	-312.05219	113.00402	-311.90291	-311.89158
COM1_I	-3080.32227	258.40055	-3079.97251	-3079.96356
TS1_I	-3080.32028	257.99106	-3079.97015	-3079.96197
INT1_I	-3080.34562	259.00327	-3079.99296	-3079.98474
R2	-1144.72858	150.53117	-1144.53605	-1144.52574
TS2_Ia_cis	-4225.07868	411.21040	-4224.50441	-4224.49665
INT2_Ia_cis	-4225.10075	412.83736	-4224.52440	-4224.51671
TS3_Ia_cis	-4225.08694	412.41943	-4224.51145	-4224.50395
P1_cis	-1795.93945	280.20887	-1795.55885	-1795.54953
TS2_Ia_trans	-4225.08367	411.64337	-4224.50620	-4224.49850
INT2_Ia_trans	-4225.09850	412.95733	-4224.52110	-4224.51328
TS3_Ia_trans	-4225.08153	412.25544	-4224.50638	-4224.49888
P1_trans	-1795.93839	280.16682	-1795.55655	-1795.54720

**Table S20.** The total energies ( $E$ : a.u.), zero-point energies ( $ZPE$ : kcal·mol<sup>-1</sup>) and Gibbs free energies [ $G$  and  $G(\text{sol},303\text{K})$ : a.u.] for stationary points on paths **I**, **Ia\_cis\_L1** and **Ia\_trans\_L1**, located at IDSCRF(ACN)–M06–2X/DGDZVP level.

Species	$E$	$ZPE$	$G$	$G(\text{sol},303\text{K})$
Ni(COD)L1	-2740.64906	247.08317	-2740.30665	-2740.29725
R1	-650.85878	127.67789	-650.69692	-650.68781

<b>COD</b>	-311.87566	114.06802	-311.72467	-311.71416
<b>COM1_I</b>	-3079.63690	261.01764	-3079.28367	-3079.27491
<b>TS1_I</b>	-3079.63109	260.40507	-3079.27781	-3079.26955
<b>INT1_I</b>	-3079.66264	261.25373	-3079.30750	-3079.29853
<b>R2</b>	-1144.33312	152.27945	-1144.13727	-1144.12669
<b>TS2_Ia_cis</b>	-4224.00268	414.93493	-4223.42211	-4223.41422
<b>INT2_Ia_cis</b>	-4224.03474	416.61241	-4223.45236	-4223.44422
<b>TS3_Ia_cis</b>	-4224.01004	416.02216	-4223.42943	-4223.42136
<b>P1_cis</b>	-1795.24831	283.64338	-1794.86030	-1794.85110
<b>TS2_Ia_trans</b>	-4224.00234	415.06249	-4223.42094	-4223.41262
<b>INT2_Ia_trans</b>	-4224.03365	416.86023	-4223.44969	-4223.44202
<b>TS3_Ia_trans</b>	-4224.00321	415.94274	-4223.42219	-4223.41420
<b>P1_trans</b>	-1795.24766	283.57240	-1794.85985	-1794.85017