

Supplementary materials:

Table. S1. Statistics of X-ray diffraction data processing using *HaLip1* crystal

Shell		I/Sigma in resolution shells:									
Lower limit	Upper limit	% of reflections with I / Sigma less than									total
		0	1	2	3	5	10	20	>20		
50.00	3.53	0.1	0.2	0.3	0.5	0.6	0.9	2.1	96.9	99.0	
3.53	2.80	0.1	0.1	0.2	0.2	0.3	0.7	2.2	97.8	99.9	
2.80	2.45	0.0	0.1	0.1	0.2	0.5	1.4	4.7	94.6	99.3	
2.45	2.22	0.1	0.1	0.2	0.3	0.5	1.7	5.5	94.4	99.9	
2.22	2.06	0.1	0.1	0.2	0.3	0.6	2.3	7.1	92.7	99.8	
2.06	1.94	0.1	0.2	0.3	0.7	1.4	3.2	10.0	89.6	99.6	
1.94	1.84	0.1	0.3	0.6	0.9	1.7	5.6	14.7	84.9	99.6	
1.84	1.76	0.1	0.4	0.8	1.3	3.2	6.8	17.5	82.3	99.8	
1.76	1.70	0.1	0.4	1.2	2.2	4.7	9.2	21.4	78.2	99.6	
1.70	1.64	0.1	0.6	1.2	2.3	4.6	10.5	25.1	74.4	99.5	
1.64	1.59	0.1	0.7	1.9	3.0	5.8	13.0	30.3	69.3	99.6	
1.59	1.54	0.4	1.4	2.5	3.9	7.9	17.9	39.1	60.2	99.3	
1.54	1.50	0.1	0.8	2.9	5.3	9.4	19.8	43.5	55.8	99.2	
1.50	1.46	0.4	1.6	3.6	6.2	11.4	24.4	49.8	49.6	99.4	
1.46	1.43	0.6	2.3	5.1	7.4	13.6	27.6	55.8	43.4	99.2	
1.43	1.40	0.5	2.9	6.6	9.6	16.3	31.9	62.2	36.9	99.1	
1.40	1.37	1.1	3.5	7.7	11.5	19.1	35.5	67.0	31.9	98.9	
1.37	1.35	1.3	4.5	8.1	12.4	20.6	38.9	71.9	27.1	99.0	
1.35	1.32	1.4	5.2	10.0	15.0	24.6	46.2	78.6	20.6	99.3	
1.32	1.30	1.6	5.4	11.0	16.3	26.2	48.2	79.9	19.0	98.8	
All hkl		0.4	1.5	3.2	4.9	8.6	17.1	34.1	65.3	99.4	

Shell	Lower limit	Upper limit	Average I	Average error	stat. Chi**2	Norm. R-fac	Linear R-fac	Square Rmeas	Rpim	CC1/2	CC*
	Angstrom										
50.00	3.53	5664.4	72.4	48.9	3.007	0.054	0.065	0.057	0.016	0.998	0.999
3.53	2.80	3647.9	48.4	35.2	3.087	0.060	0.067	0.063	0.017	0.998	1.000
2.80	2.45	1890.3	30.6	24.3	3.169	0.072	0.083	0.076	0.022	0.997	0.999
2.45	2.22	1587.1	24.6	19.7	3.343	0.078	0.089	0.082	0.023	0.997	0.999
2.22	2.06	1281.1	20.4	16.6	3.574	0.086	0.097	0.089	0.025	0.997	0.999
2.06	1.94	939.0	17.0	14.3	3.507	0.092	0.102	0.097	0.027	0.996	0.999
1.94	1.84	648.5	13.5	11.7	3.351	0.103	0.115	0.108	0.032	0.995	0.999

1.84	1.76	481.3	10.4	9.2	3.156	0.112	0.123	0.117	0.033	0.995	0.999
1.76	1.70	382.6	9.1	8.2	2.924	0.121	0.132	0.126	0.035	0.993	0.998
1.70	1.64	322.6	8.3	7.6	2.886	0.133	0.145	0.138	0.038	0.992	0.998
1.64	1.59	289.6	8.0	7.4	2.786	0.142	0.154	0.148	0.041	0.992	0.998
1.59	1.54	239.1	8.4	7.9	2.720	0.158	0.175	0.166	0.049	0.989	0.997
1.54	1.50	217.1	7.8	7.4	2.566	0.173	0.193	0.181	0.052	0.990	0.997
1.50	1.46	184.4	7.3	7.0	2.431	0.193	0.221	0.202	0.057	0.989	0.997
1.46	1.43	153.0	6.9	6.7	2.229	0.216	0.243	0.225	0.063	0.986	0.996
1.43	1.40	129.7	6.6	6.4	2.012	0.230	0.264	0.240	0.066	0.984	0.996
1.40	1.37	121.3	6.6	6.5	2.019	0.258	0.300	0.268	0.073	0.984	0.996
1.37	1.35	112.6	6.9	6.7	1.970	0.273	0.321	0.284	0.080	0.978	0.994
1.35	1.32	102.5	7.4	7.2	1.925	0.295	0.341	0.310	0.091	0.969	0.992
1.32	1.30	92.2	6.8	6.7	2.491	0.361	0.624	0.376	0.105	0.951	0.987
All reflections		952.7	16.7	13.5	2.765	0.083	0.073	0.087	0.024	0.999	1.000

Intensities of systematic absences

h	k	l	Intensity	Sigma	I/Sigma
0	0	3	1.1	0.4	3.0
0	0	5	1.6	0.4	4.2
0	0	7	1.7	0.6	2.9
0	0	9	5.7	0.8	7.3
0	0	11	0.1	0.9	0.1
0	0	13	1.2	1.5	0.8
0	0	15	4.3	2.1	2.0
0	0	17	3.6	1.8	2.1
0	0	19	1.5	2.1	0.7
0	0	21	-0.5	2.4	-0.2
0	0	23	-1.0	3.5	-0.3
0	0	25	-5.8	3.9	-1.5
0	0	27	12.4	3.8	3.3
0	0	29	-2.8	4.2	-0.7
0	0	31	4.7	11.8	0.4
0	0	33	-9.6	5.9	-1.6
0	0	35	5.9	4.8	1.2
0	0	37	3.9	5.2	0.8
0	0	39	-3.8	7.3	-0.5
0	0	41	0.1	6.2	0.0
0	0	45	2.6	5.7	0.5
0	0	47	-2.2	7.1	-0.3

0	0	49	16.6	6.0	2.8
0	0	51	2.1	7.3	0.3
0	0	53	-4.0	8.9	-0.4
0	0	55	-3.8	8.0	-0.5
0	0	57	1.5	7.7	0.2
0	0	59	2.3	9.8	0.2
0	0	61	-13.7	10.4	-1.3
0	0	63	4.7	12.1	0.4
0	3	0	1.7	0.3	6.5
0	5	0	2.5	0.4	5.9
0	7	0	1.4	0.6	2.6
0	9	0	1.5	0.6	2.6
0	11	0	2.6	0.8	3.2
0	15	0	-3.7	1.4	-2.7
0	17	0	2.9	1.3	2.3
0	19	0	0.0	1.2	0.0
0	21	0	5.3	1.4	3.9
0	23	0	2.8	1.2	2.3
0	25	0	-0.4	1.2	-0.3
0	27	0	0.6	1.2	0.5
0	29	0	-0.6	1.0	-0.6
0	31	0	0.1	1.0	0.1
3	0	0	1.2	1.1	1.1
5	0	0	2.8	1.4	2.0
7	0	0	5.4	2.4	2.3
9	0	0	2.0	2.9	0.7
11	0	0	4.4	3.8	1.1
13	0	0	0.9	4.8	0.2
15	0	0	13.6	4.8	2.8
17	0	0	7.3	5.4	1.4
19	0	0	2.5	5.2	0.5
21	0	0	5.7	6.4	0.9
23	0	0	-3.7	6.9	-0.5
25	0	0	-2.1	8.0	-0.3
27	0	0	0.0	10.6	0.0
29	0	0	-6.3	13.3	-0.5
31	0	0	0.4	11.7	0.0
33	0	0	-6.6	15.0	-0.4
37	0	0	3.3	17.3	0.2

39 0 0 -2.4 18.1 -0.1