Supplementary Materials: Polybrominated Diphenyl Ethers in Maternal Serum, Breast Milk, Umbilical Cord Serum, and House Dust in a South Korean Birth Panel of Mother–Neonate Pairs

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Table S1. Spearman' correlation coefficient among PBDE congeners in house dust.

BDE congeners		Tri-	Tetra-			Penta-			Hexa-		Hepta-		Octa-		Nona-		Deca-
		28	47	66	85	99	100	119	153	154	183	184	196	197	206	207	209
17	Spearman's (ρ)	0.692	0.591	0.572	0.428	0.402	0.636	−0.500	0.446	0.600	0.573	1.000	0.636	0.633	0.412	0.405	0.393
	p-value	0.006	0.026	0.065	0.337	0.154	0.026	0.666	0.109	0.087	0.032	<0.0001	0.035	0.067	0.182	0.190	0.164
	n	14	14	11	7	14	12	3	14	9	14	5	11	9	12	12	14
28	Spearman's (ρ)		0.245	−0.064	0.358	0.046	0.491	−0.100	0.048	0.269	−0.009	0.142	0.085	0.121	0.127	0.094	0.303
	p-value		0.167	0.819	0.208	0.798	0.010	0.872	0.792	0.278	0.957	0.787	0.676	0.590	0.495	0.612	0.085
	n		33	15	14	33	26	5	32	18	33	6	26	22	31	31	33
47	Spearman's (ρ)			0.846	0.871	0.827	0.679	0.900	0.674	0.832	0.539	0.821	0.475	0.390	0.478	0.510	0.424
	p-value			<0.0001	<0.0001	<0.0001	<0.0001	0.037	<0.0001	<0.0001	0.0003	0.023	0.004	0.040	0.002	0.0009	0.005
	n			15	15	41	29	5	40	22	41	7	34	28	39	39	41
66	Spearman's (ρ)				0.821	0.753	0.829	1.000	0.657	0.927	0.700	1.000	0.461	0.103	0.379	0.318	0.478
	p-value				0.023	0.001	0.0005	<0.0001	0.007	<0.0001	0.003	<0.0001	0.112	0.777	0.201	0.288	0.071
	n				7	15	13	3	15	11	15	3	13	10	13	13	15
85	Spearman's (ρ)					0.500	0.637	0.900	0.578	0.853	0.221	0.900	0.520	0.300	0.494	0.478	0.571
	p-value					0.057	0.019	0.037	0.023	0.0004	0.427	0.037	0.056	0.342	0.085	0.098	0.026
	n					15	13	5	15	12	15	5	14	12	13	13	15
99	Spearman's (ρ)						0.548	−0.100	0.554	0.795	0.561	0.750	0.396	0.257	0.456	0.451	0.368
	p-value						0.002	0.872	0.0002	<0.0001	0.0001	0.052	0.020	0.185	0.003	0.004	0.017
	n						29	5	40	22	41	7	34	28	39	39	41
100	Spearman's (ρ)							0.900	0.582	0.525	0.602	0.028	0.465	0.215	0.486	0.461	0.376
	p-value							0.037	0.0009	0.025	0.0005	0.957	0.022	0.374	0.010	0.015	0.043
	n							5	29	18	29	6	24	19	27	27	29
119	Spearman's (ρ)								0.200	0.400	0.300	1.000	0.300	0.200	0.800	0.800	0.900
	p-value								0.747	0.600	0.623	.	0.623	0.800	0.200	0.200	0.037
	n								5	4	5	2	5	4	4	4	5
153	Spearman's (ρ)									0.559	0.606	−0.142	0.359	0.511	0.342	0.333	0.205

	p-value	0.006	<0.0001	0.759	0.036	0.005	0.035	0.040	0.203
	n	22	40	7	34	28	38	38	40
154	Spearman's (ρ)			0.601	0.714	0.756	0.535	0.754	0.729	0.681
	p-value			0.003	0.110	0.0001	0.039	0.0001	0.0003	0.0005
	n			22	6	20	15	20	20	22
183	Spearman's (ρ)				0.892	0.589	0.518	0.531	0.496	0.392
	p-value				0.006	0.0002	0.004	0.0005	0.001	0.011
	n				7	34	28	39	39	41
184	Spearman's (ρ)					0.750	0.700	0.714	0.771	0.785
	p-value					0.052	0.188	0.110	0.072	0.036
	n					7	5	6	6	7
196	Spearman's (ρ)						0.902	0.765	0.692	0.670
	p-value						<0.0001	<0.0001	<0.0001	<0.0001
	n						28	32	32	34
197	Spearman's (ρ)							0.563	0.528	0.433
	p-value							0.002	0.004	0.021
	n							27	27	28
206	Spearman's (ρ)								0.959	0.870
	p-value								<0.0001	<0.0001
	n								39	39
207	Spearman's (ρ)									0.849
	p-value									<.0001
	n									39

Table S2. Spearman' correlation coefficient between predominant congeners (>75% detection rate) in umbilical cord serum, maternal serum and nona/deca-BDEs in house dust.

Human tissues	BDE congener		House Dust		
			206	207	209
Maternal serum	**47**	Spearman's (ρ)	0.241	0.243	0.242
		p-value	0.257	0.253	0.245
		n	24	24	25
Umbilical cord serum	**47**	Spearman's (ρ)	**0.447**	**0.502**	**0.523**
		p-value	0.007	0.005	<0.001
		n	18	18	19
	99	Spearman's (ρ)	**0.573**	**0.604**	**0.637**
		p-value	0.013	0.008	0.003
		n	18	18	19
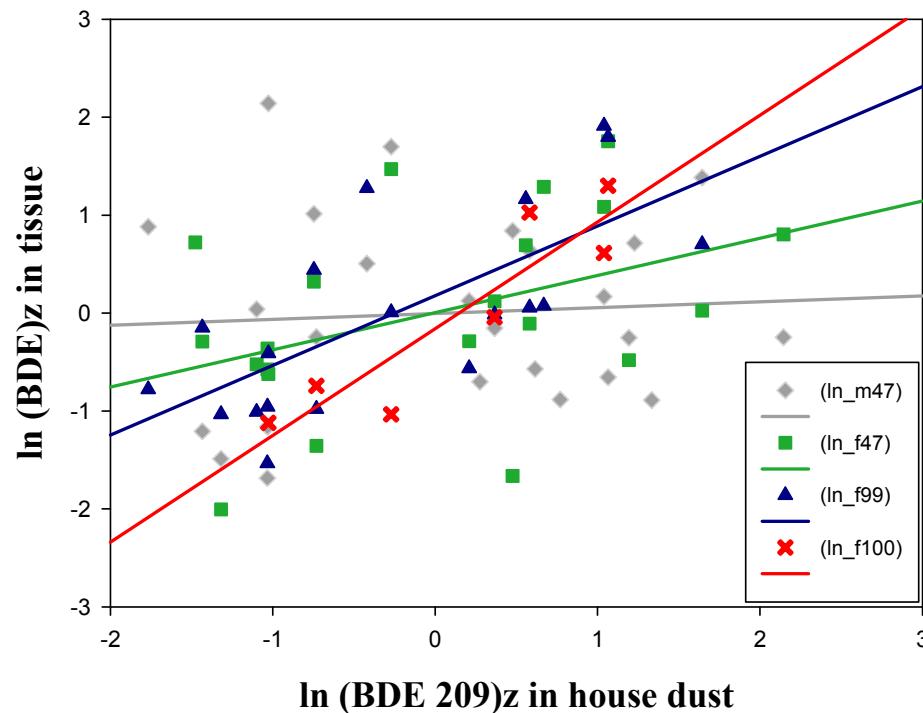
Figure S1. Scatter plots with regression lines between BDE 47, 99 and 100 in tissue and BDE 209 in house dust. All data were natural-log transformed and then, were standardized to have a mean of zero and standard deviation of unity. "m" and "f" mean maternal serum and umbilical cord serum, respectively. (ln_m47; $\beta = 0.168$, *p* > 0.1, ln_f47; $\beta = 0.714$, *p* < 0.01, ln_f99; $\beta = 0.814$, *p* < 0.001 and ln_f100; $\beta = 0.834$, *p* < 0.01).
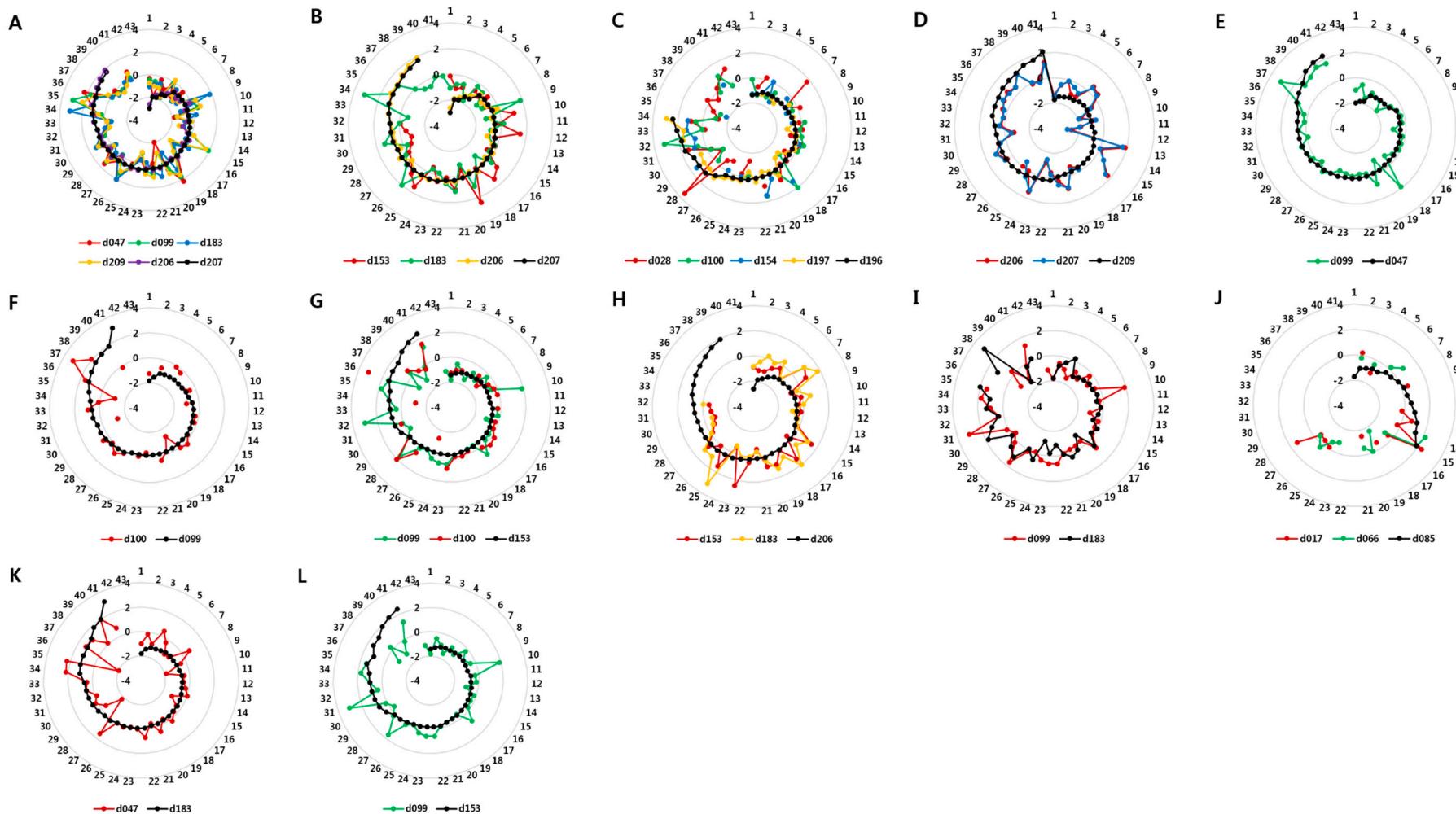
Figure S2. Radar charts of PBDE congeners detected in house dust by homologous group of PBDE formulations <extended>. The values from the center indicate log transformed PBDE levels, standardized with a mean of zero and standard deviation of unity, and those around the circumference are observation numbers in ascending order of reference BDE (black dots and lines) levels, where the congener number is provided in the legend after the "d" character. For example "d047" corresponds to BDE 47 in dust.
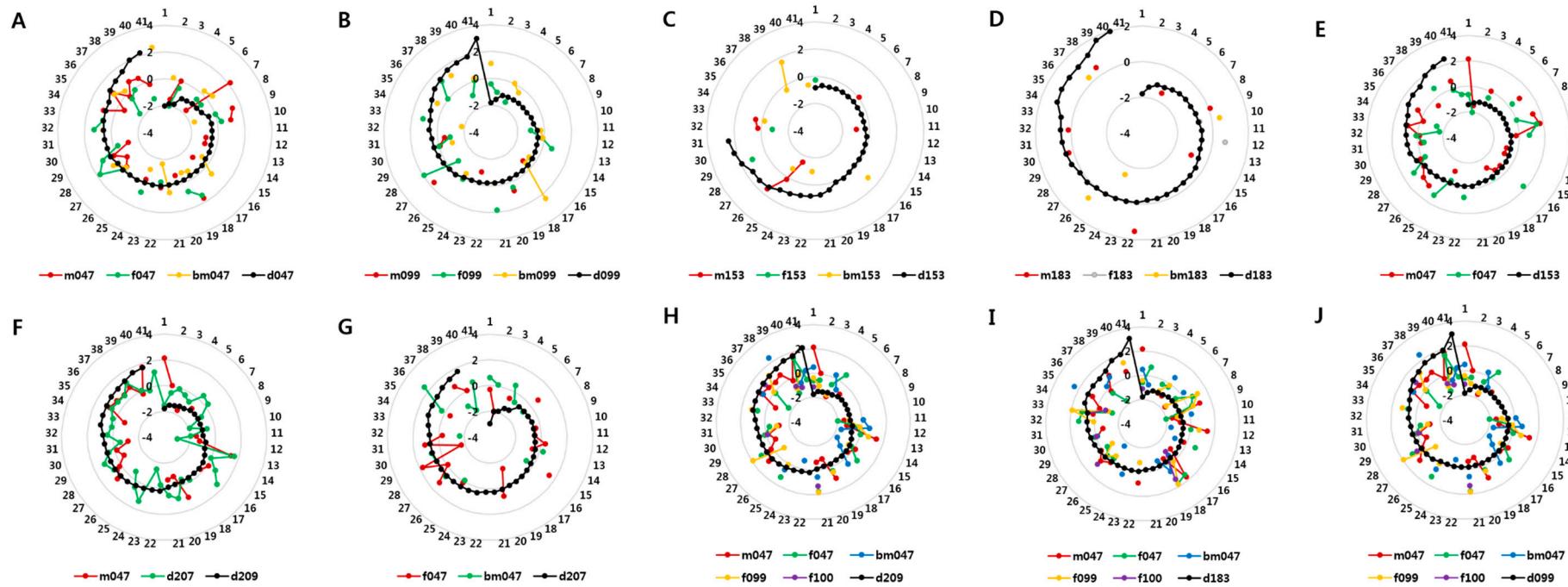
Figure S3. Radar charts of major PBDE congeners detected in house dust and major congener detected in human tissues <extended>. The values from the center indicate log transformed PBDE levels, standardized with a mean of zero and standard deviation of unity, and those around the circumference are observation numbers in ascending order of reference BDE (d209) levels, where the congener number is provided in the legend after the "m, f, bm and d" character. m; maternal serum, f; umbilical cord serum, bm; breast milk, d; house dust. For example "m047" corresponds to BDE 47 in maternal serum.