

Electronic supplementary information (ESI)

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Table S1. Concentrations (ng/kg) of PBDEs and PBDFs detected in textile samples exposed to sunlight

Congener	day 0	day 21	day 49	day 77	day 105	day 133	day 161	day 189	day 217	day 245	day 273	day 301	day 329	day 357	day 371
Polybrominated diphenyl ethers (PBDEs)															
di-BDEs #7	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
di-BDEs #15	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tri-BDEs #17	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tri-BDEs #28	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tetra-BDEs #49	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tetra-BDEs #71	0.050	0.060	0.062	0.057	0.067	0.055	0.057	0.049	0.049	0.049	0.049	0.045	0.044	0.043	0.045
tetra-BDEs #66	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tetra-BDEs #77	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
penta-BDEs #100	nd	0.010	0.011	0.011	0.014	nd	nd	nd	nd	nd	0.010	nd	nd	nd	nd
penta-BDEs #119	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.010	nd	nd	nd	nd
penta-BDEs #99	0.077	0.089	0.088	0.081	0.098	0.083	0.083	0.074	0.075	0.071	0.081	0.075	0.071	0.075	0.073
penta-BDEs #85	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
penta-BDEs #126	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
hexa-BDEs #138	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
hexa-BDEs #154	0.026	0.032	0.034	0.029	0.036	0.030	0.034	0.030	0.029	0.031	0.037	0.038	0.034	0.035	0.041
hexa-BDEs #153	0.16	0.17	0.18	0.17	0.19	0.17	0.17	0.15	0.15	0.15	0.17	0.16	0.14	0.15	0.16
hepta-BDEs #184	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.40	nd	nd	nd	nd
hepta-BDEs #183	0.66	0.81	0.81	0.72	0.88	0.70	0.73	0.67	0.63	0.65	0.69	0.58	0.65	0.71	0.69
hepta-BDEs #191	100	72	53	66	70	59	80	56	78	67	10	27	29	24	23
octa-BDEs #196	37	43	33	32	41	33	94	62	140	94	42	30	27	38	38
octa-BDEs #197	940	1,200	1,100	1,200	1,500	1,200	4,700	3,300	3,800	3,500	1,800	1,300	1,300	1,100	1,100
nona-BDEs #207	1,400	1,300	1,400	1,400	1,600	1,300	2,000	1,800	1,700	1,700	1,300	1,300	1,300	1,200	1,200
deca-BDEs #206	120,000	120,000	130,000	130,000	150,000	120,000	120,000	100,000	110,000	110,000	110,000	110,000	110,000	110,000	120,000
deca-BDE #209	130,000	140,000	130,000	130,000	160,000	130,000	130,000	110,000	120,000	120,000	120,000	110,000	110,000	110,000	120,000
Homolog groups															
di-BDEs	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tri-BDEs	0.050	0.060	0.062	0.057	0.067	0.055	0.057	0.049	0.049	0.049	0.049	0.045	0.044	0.043	0.045
tetra-BDEs	0.077	0.10	0.098	0.092	0.11	0.083	0.083	0.074	0.075	0.071	0.091	0.075	0.071	0.075	0.073
penta-BDEs	0.20	0.22	0.24	0.22	0.25	0.22	0.20	0.20	0.20	0.21	0.23	0.23	0.21	0.22	0.25
hexa-BDEs	0.66	0.81	0.81	0.72	0.88	0.70	0.81	0.75	0.71	0.74	0.82	0.66	0.73	0.79	0.82
hepta-BDEs	280	250	190	200	230	190	470	340	670	480	220	160	120	160	140
octa-BDEs	2,900	3,200	3,100	3,300	4,000	3,200	9,500	7,000	7,600	7,200	4,200	3,400	3,400	2,900	3,000
nona-BDEs	120,000	120,000	130,000	130,000	150,000	120,000	120,000	100,000	110,000	110,000	110,000	110,000	110,000	110,000	120,000
deca-BDE	130,000	140,000	130,000	130,000	160,000	130,000	130,000	110,000	120,000	120,000	120,000	110,000	110,000	110,000	120,000
Polybrominated dibenzofurans (PBDFs)															
di-BDFs 2,8-F	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tri-BDFs 2,4,8-F	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
tetra-BDFs 2,3,7,8-F	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
penta-BDFs 2,3,4,7,8-F	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd
hexa-BDFs 1,2,3,4,7,8-F	nd	nd	nd	nd	0.046	0.035	nd	0.051	0.056	0.059	0.10	0.11	0.12	0.11	0.11
hepta-BDFs 1,2,3,4,6,7,8-F	0.64	1.2	1.1	1.2	1.7	1.5	3.0	1.9	2.6	3.2	3.4	3.4	3.4	5.4	3.6
octa-BDF 1,2,3,4,6,7,8,9-F	1.7	5.8	2.8	2.8	4.4	2.8	9.1	3.5	7.1	9.2	9.6	12	19	18	11
Homolog groups															
di-BDFs	nd	nd	nd	nd	nd	nd	nd	nd	nd	nd	0.012	0.015	0.015	0.021	0.015
tri-BDFs	nd	0.014	0.020	0.029	0.052	0.061	0.078	0.11	0.10	0.10	0.18	0.26	0.18	0.21	0.24
tetra-BDFs	0.065	0.041	0.073	0.11	0.22	0.21	0.28	0.42	0.35	0.42	0.64	0.75	0.65	0.65	0.70
hepta-BDFs	0.64	1.2	1.1	1.2	1.7	1.5	3.0	1.9	2.6	3.2	3.4	3.4	3.4	5.4	3.6
octa-BDF	1.7	5.8	2.8	2.8	4.4	2.8	9.1	3.5	7.1	9.2	9.6	12	19	18	11
Total PBDFs	2.4	7.3	4.3	4.6	7.1	5.2	13	6.8	11	14	15	18	27	26	17

nd: not detected at or above the detection limits of the analyses; 5 ng/kg for di- to tetra-BDEs, 10 ng/kg for penta- to hepta-BDEs, 20 ng/kg for octa- and nona-BDEs, 50 ng/kg for deca-BDE, 10 ng/kg for di- to penta-BDFs, and 30 ng/kg for hepta- to octa-BDFs.

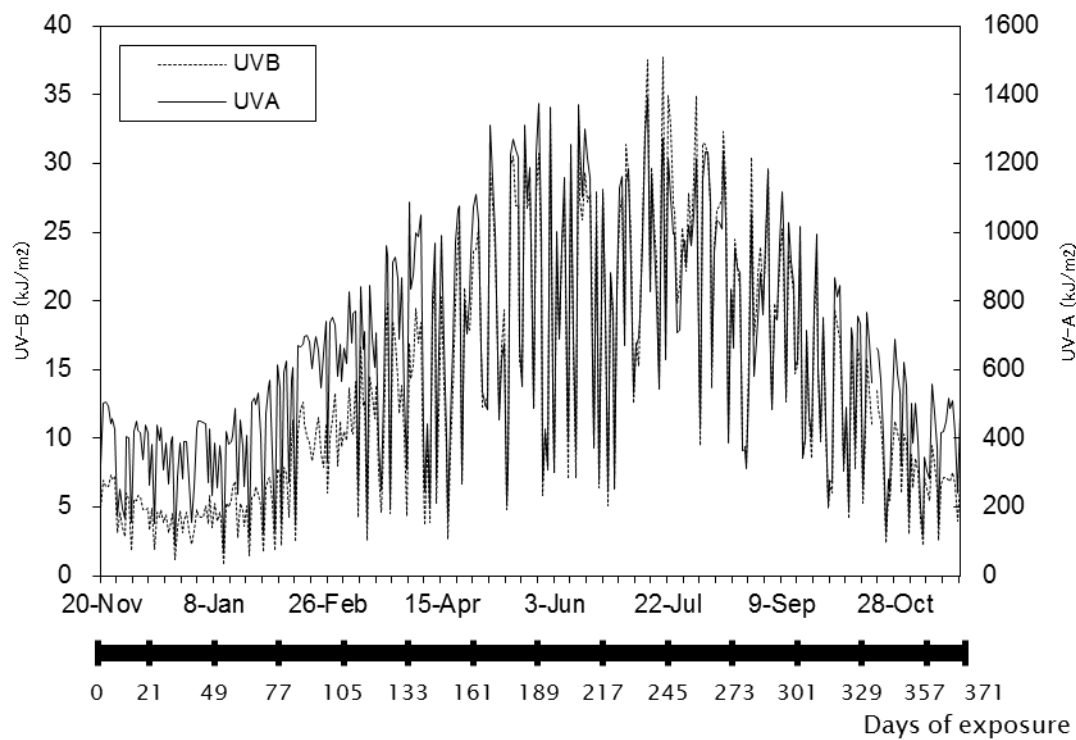


Fig. S1. Daily cumulative UV irradiation during the experiment.

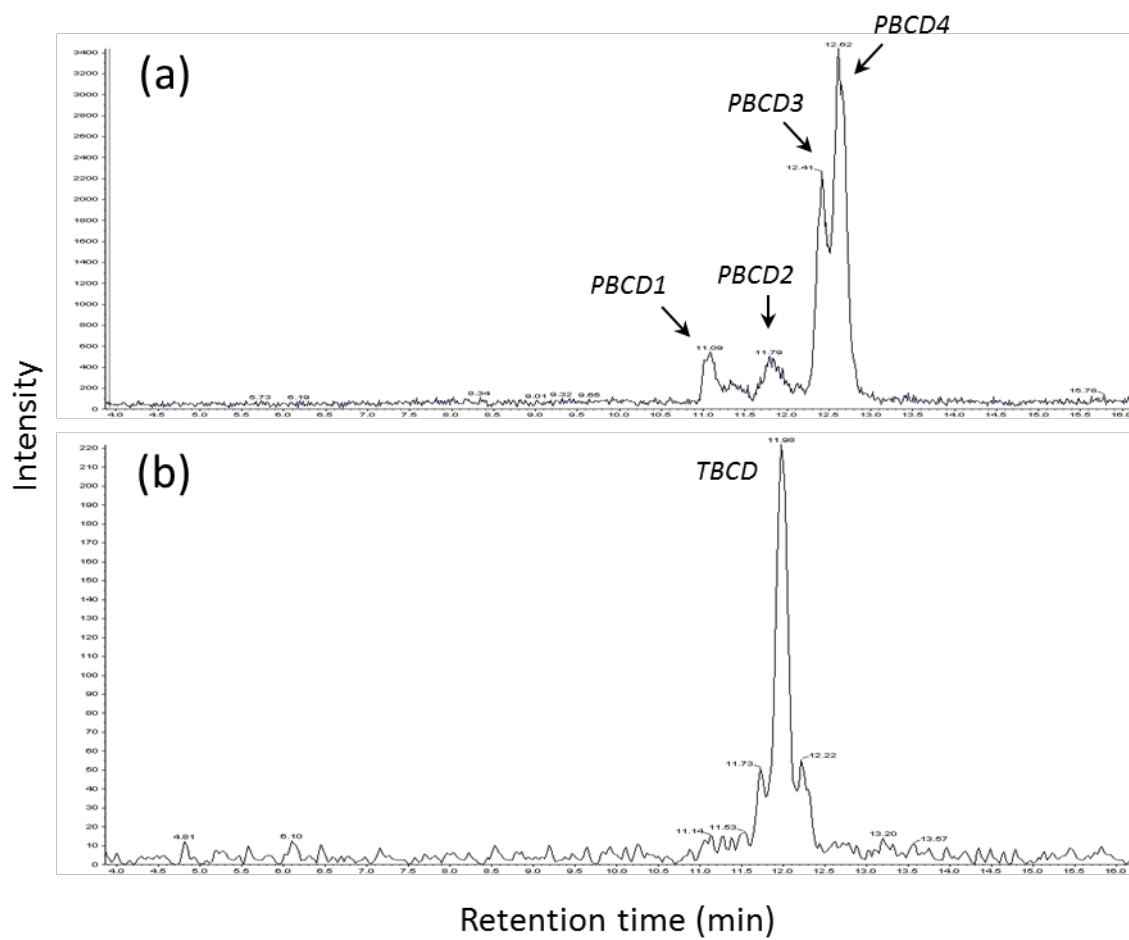


Figure S2. LC/MS/MS chromatograms of (a) PBCDs and (b) TBCD in curtain samples.