Supporting Information

Urinary Concentrations of Bisphenols and their Association with Biomarkers of Oxidative Stress in People Living Near E-waste Recycling Facilities in China

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Supporting information including 5 pages which contains 2 tables and 1 figure.

Chemicals and Reagents. Eight bisphenols, including bisphenol A [BPA; 2,2-bis(4-hydroxyphenyl)propane] (purity: 97%), bisphenol S (BPS; 4,4'-sulfonyldiphenol), bisphenol F (BPF; 4,4'-dihydroxydiphenylmethane), bisphenol P [BPP; 4,4′-(1,4-phenylenediisopropylidene)bisphenol; 99%], bisphenol Z [BPZ; 4,4′-cyclohexylidenebisphenol; 98%], bisphenol AF [BPAF; 4,4'-(hexafluoroisopropylidene)diphenol] (97%), and bisphenol AP [BPAP; 4,4′-(1-phenylethylidene)bisphenol; 99%] were obtained from Sigma-Aldrich (St. Louis, MO, USA); bisphenol B [BPB; 2,2-bis(4-hydroxyphenyl)butane] (98%) was purchased from TCI America (Portland, OR, USA). The molecular structures of bisphenols are shown in **Table S1**. Three internal standards, including $^{13}C_{12}$-labeled BPA (99%) and $^{15}N_5$-8-OHdG (> 98%) were purchased from Cambridge Isotope Laboratories (Andover, MA, USA); creatinine-d_3 (≥ 99%) was obtained from CDN Isotopes (Pointe-Claire, Quebec, Canada). HPLC grade ethyl acetate and methanol were from Mallinckrodt Baker (Phillipsburg, NJ, USA). Milli-Q water was provided through an ultrapure water system (Barnstead International, Dubuque, IA, USA). *β*-glucuronidase from *Helix pomatia* (145,700 units/mL *β*-glucuronidase; 887 units/mL sulfatase), 8-hydroxy-2'-deoxyguanosine (99%), creatinine (≥ 99%), acetic acid (≥ 99.7%), and ammonium acetate (≥ 98%) were purchased from Sigma-Aldrich (St. Louis, MO, USA).

Table S1. Tandem MS Parameters for the Analysis of Bisphenols.

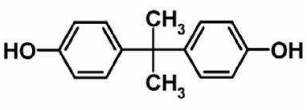
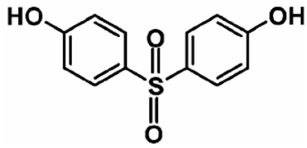
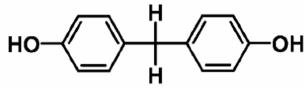
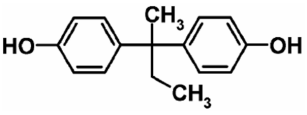
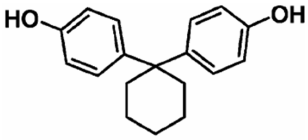
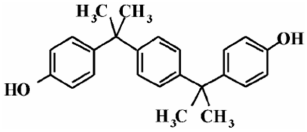
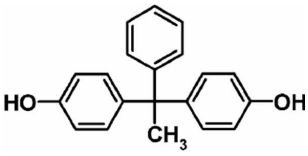
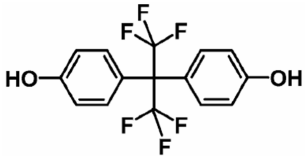
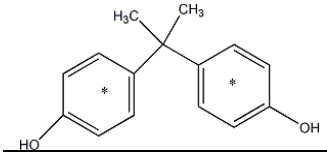
Molecular structures	Chemicals	MS/MS ion (m/z)	Declustering potential (V)	Entrance potential (V)	Collision energy (V)	Collision cell exit potential (V)
	BPA	227 > 212	-80	-12	-25	-5
	BPS	249 > 108	-40	-12	-30	-5
	BPF	199 > 93	-40	-12	-25	-5
	BPB	241 > 212	-40	-12	-25	-10
	BPZ	267 > 173	-40	-12	-32	-5
	BPP	345 > 330	-40	-12	-30	-10
	BPAP	289 > 274	-35	-12	-28	-10
	BPAF	335 > 265	-40	-12	-32	-5
	$^{13}C_{12}$-BPA	239 > 92	-80	-12	-25	-5

Table S2. Detailed Information of Subjects Recruited in This Study.

sampling sites		total	age distribution				gender distribution		occupational distribution	
			0 > - 6 yrs	> 6 - 18 yrs	> 18 - 60 yrs	> 60 yrs	males	females	OP [d]	NOP [e]
e-waste dismantling areas	all [a]	**116**	14	28	60	14	66	50	20	96
	HDED [b]	**51**	6	13	25	7	28	23	12	39
	LDED [c]	**65**	8	15	35	7	38	27	8	57
rural reference area	all	**22**	2	0	12	8	11	11	0	0
urban reference area	all	**20**	0	0	20	0	9	11	0	0

[a] all: all participants from this area. [b] HDED: participants from high-density e-waste dismantling workshop area. [c] LDED: participants from low-density e-waste dismantling workshop area. [d] OP: occupational people. [e] NOP: non-occupational people.

Figure S1. Sampling locations of samples collected from e-waste dismantling and two reference areas in Guangdong Province, China. Yellow background represents Qingyuan City; HDED and LDED represent high-density and low-density e-waste dismantling workshops area, respectively.