

Supporting Information

Per- and Polyfluoroalkyl Substances in E-Waste Dust

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Number of pages: 28

Number of tables: 14

Number of texts: 1

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Text S1 Materials and Methods

Table S1 E-waste sample information

Sample ID	Facility ID	Sample collection location
S1	1	Bin-1
S2	1	Bench-1
S3	1	Bin-2
S4	1	Floor-1
S5	2	Floor-2
S6	1	Bench-2
S7	1	Floor-3
S8	1	Bench-3
S9	1	Floor-4
S10	1	Floor-5
S11	1	Floor-6
S12	1	Floor-7
S13	1	Bin-3
S14	1	Bin-4
S15	1	Bin-5
S16	1	Bench-4
S17	1	Floor-8
S18	1	Floor-9
S19	1	Composite

Table S2. List of PFAS analytes including abbreviation, CAS number and full name. SS and IS represent surrogate and internal standard, respectively.

Abbr.	CAS #	Formula	Compound name
TFA	76-05-1	C ₂ HF ₃ O ₂	Trifluoroacetic acid
PFPrA	422-64-0	C ₃ HF ₅ O ₂	Perfluoropropanoic acid
PFBA	375-22-4	C ₄ HF ₇ O ₂	Perfluorobutanoic acid
PFPeA	2706-90-3	C ₅ HF ₉ O ₂	Perfluoropentanoic acid
PFHxA	307-24-4	C ₆ HF ₁₁ O ₂	Perfluoro-n-hexanoic acid
PFHpA	375-85-9	C ₇ HF ₁₃ O ₂	Perfluoro-n-heptanoic acid
PFOA	335-67-1	C ₈ HF ₁₅ O ₂	Perfluoro-n-octanoic acid
PFNA	375-95-1	C ₉ HF ₁₇ O ₂	Perfluoro-n-nonanoic acid
PFDA	335-76-2	C ₁₀ HF ₁₉ O ₂	Perfluoro-n-decanoic acid
PFUnDA	2058-94-8	C ₁₁ HF ₂₁ O ₂	Perfluoro-n-undecanoic acid
PFDoDA	307-55-1	C ₁₂ HF ₂₃ O ₂	Perfluoro-n-dodecanoic acid

PFTrDA	72629-94-8	$C_{13}HF_{25}O_2$	Perfluoro-n-tridecanoic acid
PFTeDA	376-06-7	$C_{14}HF_{27}O_2$	Perfluoro-n-tetradecanoic acid
PFHxDA	67905-19-5	$C_{16}HF_{31}O_2$	Perfluoro-n-hexadecanoic acid
TFMS	1493-13-6	CHF_3SO_3	Trifluoromethanesulfonic acid
PFEtS	354-88-1	$C_2HF_5SO_3$	perfluoroethanesulfonic acid
PFPrS	423-41-6	$C_3HF_7SO_3$	Perfluoro-1-propanesulfonic acid
PFBS	375-73-5	$C_4HF_9SO_3$	Perfluoro-1-butanesulfonic acid
PFPeS	2706-91-4	$C_5HF_{11}SO_3$	Perfluoro-1-pentanesulfonic acid
PFHxS	355-46-4	$C_6HF_{13}SO_3$	Perfluoro-1-hexanesulfonic acid
PFHpS	375-92-8	$C_7HF_{15}SO_3$	Perfluoro-1-heptanesulfonic acid
PFOS	1763-23-1	$C_8HF_{17}SO_3$	Perfluoro-1-octanesulfonic acid
PFNS	68259-12-1	$C_9HF_{19}SO_3$	Perfluoro-1-nonanesulfonic acid
PFDS	335-77-3	$C_{10}HF_{21}SO_3$	Perfluoro-1-decanesulfonic acid
PFECHS	646-83-3	$C_8HF_{15}SO_3$	Perfluoro-4-ethylcyclohexanesulfonic acid
Cl-PFOS	777011-38-8	$C_8HF_{16}ClSO_3$	8-Chloroperfluoro-1-octanesulfonic acid
FBSA	30334-69-1	$C_4H_2F_9NO_2S$	Perfluoro-1-butanesulfonamide
FHxSA	41997-13-1	$C_6H_2F_{13}NO_2S$	Perfluoro-1-hexanesulfonamide
FOSA	754-91-6	$C_8H_2F_{17}NO_2S$	Perfluoro-1-octanesulfonamide
MeFOSA	31506-32-8	$C_9H_4F_{17}NO_2S$	N-methylperfluoro-1-octanesulfonamide
EtFOSA	4151-50-2	$C_{10}H_6F_{17}NO_2S$	N-ethylperfluoro-1-octanesulfonamide
6:2 Cl-PFESA	756426-58-1	$C_8HClF_{16}O_4S$	9-Chlorohexadecafluoro-3-oxanonane-1-sulfonate
8:2 Cl-PFESA	763051-92-9	$C_{10}HClF_{20}O_4S$	11-Chloroeicosafluoro-3-oxaundecane-1-sulfonate
4:2 FTSA	757124-72-4	$C_6H_5F_9O_3S$	1H,1H,2H,2H-perfluorohexane sulfonic acid (4:2)
6:2 FTSA	27619-97-2	$C_8H_5F_{13}O_3S$	1H,1H,2H,2H-perfluorooctane sulfonic acid (6:2)
8:2 FTSA	39108-34-4	$C_{10}H_5F_{17}O_3S$	1H,1H,2H,2H-perfluorodecane sulfonic acid (8:2)
10:2 FTSA	120226-60-0	$C_{12}H_5F_{21}O_3S$	1H,1H,2H,2H-Perfluorododecanesulphonic acid (10:2)
FPrPA	356-02-5	$C_6F_7H_5O_2$	3-Perfluoropropyl propanoic acid(3:3)
FPePA	914637-49-3	$C_8F_{11}H_5O_2$	3-Perfluoropentyl propanoic acid(5:3)
FHpPA	812-70-4	$C_{10}F_{15}H_5O_2$	3-Perfluoroheptyl propanoic acid(7:3)
FOPA	34598-33-9	$C_{11}F_{17}H_5O_2$	3-Heptadecafluorooctyl propanoic acid(8:3)
FOSAA	2806-24-8	$C_{10}F_{17}H_4NSO_4$	Perfluorooctane sulfonamido acetic acid
N-MeFOSAA	2355-31-9	$C_{11}F_{17}H_6NSO_4$	N-methylperfluorooctane sulfonamidoacetic acid
N-EtFOSAA	2991-50-6	$C_{12}F_{17}H_8NSO_4$	N-Ethylperfluorooctane sulfonamidoacetic acid
6:2 FTUCA	70887-88-6	$C_8F_{12}H_2O_2$	3-(Perfluoropentyl)-3-fluoro-2-propenoic acid
8:2 FTUCA	70887-84-2	$C_{10}F_{16}H_2O_2$	2H-Perfluoro-2-decenoic acid
10:2 FTUCA	70887-94-4	$C_{12}F_{20}H_2O_2$	2H-Perfluoro-2-dodecenoate
6:6 PFPiA	40143-77-9	$C_{12}F_{26}HO_2P$	Bis(perfluorohexyl)phosphinic acid
6:8 PFPiA	610800-34-5	$C_{14}F_{30}HO_2P$	Bis(perfluorohexyloctyl)phosphinic acid

8:8 PFPiA	40143-79-1	$C_{16}F_{34}HO_2P$	Bis(perfluorooctyl)phosphinic acid
PFH _x PA	40143-76-8	$C_6F_{13}H_2O_3P$	Perfluorohexanephosphonic acid
PFOPA	40143-78-0	$C_8F_{17}H_2O_3P$	Perfluorooctylphosphonic acid
PFDPA	52299-26-0	$C_{10}F_{21}H_2O_3P$	Perfluorodecylphosphonic acid
PFMPA	377-73-1	$C_4HF_7O_3$	Perfluoro-3-methoxypropanoic acid
PFMBA	863090-89-5	$C_5HF_9O_3$	Perfluoro-4-methoxybutanoic acid
NFDHA	151772-58-6	$C_5HF_9O_4$	Nonafluoro-3,6-dioxaheptanoic acid
ADONA	919005-14-4	$C_7H_2F_{12}O_4$	4,8-Dioxa-3H-perfluorononanoic acid
PFEESA	113507-82-7	$C_4HF_9SO_4$	Perfluoro(2-ethoxyethane)sulphonic acid
HFPO-TA	13252-14-7	$C_9HF_{17}O_4$	Perfluoro-2,5-dimethyl-3,6-dioxanonanoic acid
P3MHpS/ P6MHpS	1202827-34-6	$C_8HF_{17}SO_3$	Perfluoro-3/6-methylheptane sulfonate
P7MOS	1202827-35-7	$C_9HF_{19}SO_3$	Perfluoro-7-methyloctanesulfonate
P3MHpA	1202827-30-2	$C_8HF_{15}O_2$	Perfluoro-3-methylheptanoic acid
P4MOA/P7MOA	1202827-31-3 /1202827-32-4	$C_9HF_{17}O_2$	Perfluoro-4/7-methyloctanoic acid
P355TMHxA	1202827-33-5	$C_9HF_{17}O_2$	Perfluoro-3,5,5-trimethylhexanoic acid
P37DMOA	1202827-36-8	$C_{10}HF_{19}O_2$	Perfluoro-3,7-dimethyloctanoic acid
$^{13}C_2$ -TFA (SS)		$NaF_3O_2 + ^{13}C_2$	Sodium trifluoroacetate
$^{13}C_3$ -PFPrA (SS)		$HF_5O_2 + ^{13}C_3$	Perfluoro-n-[1,2,3- $^{13}C_3$]propanoic acid
M3PFBA (SS)		$CHF_7O_2 + ^{13}C_3$	Perfluoro-n-[2,3,4- $^{13}C_3$]butanoic acid
MPFHxA (SS)		$C_4HF_{11}O_2 + ^{13}C_2$	Perfluoro-n-[1,2- $^{13}C_2$]hexanoic acid
MPFOA (SS)		$C_4HF_{15}O_2 + ^{13}C_4$	Perfluoro-n-[1,2,3,4- $^{13}C_4$]octanoic acid
MPFUnDA (SS)		$C_9HF_{21}O_2 + ^{13}C_2$	Perfluoro-n-[1,2- $^{13}C_2$]undecanoic acid
M2PFTeDA (SS)		$C_{12}HF_{27}O_2 + ^{13}C_2$	Perfluoro-n-[1,2- $^{13}C_2$]tetradecanoic acid
M3PFBS (SS)		$CHF_9SO_3 + ^{13}C_3$	Perfluoro-1-[2,3,4- $^{13}C_3$]butanesulfonic acid
MPFHxS (SS)		$C_6HF_{13}SO + ^{18}O_2$	Perfluoro-1-hexane[$^{18}O_2$]sulfonic acid
MPFOS (SS)		$C_4HF_{17}SO_3 + ^{13}C_4$	Perfluoro-1-[1,2,3,4- $^{13}C_4$]octanesulfonic acid
dMeFOSA (SS)		$C_8F_{17}SO_2N+D_3$	N-methyl-d ₃ -perfluoro-1-octanesulfonamide
M2-8:2 FTSA (SS)		$C_8H_5F_{17}O_3S + ^{13}C_2$	1H,1H,2H,2H-perfluoro-1-[1,2- $^{13}C_2$]-decane sulfonic acid (8:2)
MPFBA (IS)		$HF_7O_2 + ^{13}C_4$	Perfluoro-n-[1,2,3,4- $^{13}C_4$]butanoic acid
M8PFOA (IS)		$HF_{15}O_2 + ^{13}C_8$	Perfluoro-n-[$^{13}C_8$]octanoic acid
M7PFUnDA (IS)		$C_4HF_{21}O_2 + ^{13}C_7$	Perfluoro-n-[1,2,3,4,5,6,7- $^{13}C_7$]undecanoic acid
M3PFHxS (IS)		$C_3HF_{13}SO_3 + ^{13}C_3$	Perfluoro-1-[1,2,3- $^{13}C_3$]hexanesulfonic acid
M8PFOS (IS)		$HF_{17}SO_3 + ^{13}C_8$	Perfluoro-[$^{13}C_8$]octanesulfonic acid
6:2 diPAP	57677-95-9	$C_{16}H_9F_{26}O_4P$	Bis(1H,1H,2H,2H-perfluorooctyl)phosphate
6:2/8:2 diPAP	943913-15-3	$C_{18}H_9F_{30}O_4P$	(1H,1H,2H,2H-perfluorooctyl)-1H,1H,2H,2H-

8:2 diPAP	678-41-1	C ₂₀ H ₉ F ₃₄ O ₄ P	perfluorodecyl)phosphate
10:2 diPAP	1895-26-7	C ₂₄ H ₉ F ₄₂ O ₄ P	Bis(1H,1H,2H,2H-perfluorodecyl)phosphate
diSAmPAP	88806-20-4	C ₂₀ H ₁₈ F ₁₆ N ₂ O ₆ P ₂ S ₂	Bis[2-(perfluorodecyl)ethyl] phosphate
6:2 triPAP	165325-62-2	C ₂₄ H ₁₂ F ₃₉ O ₄ P	N,N'-Bis[2-(perfluorooctane sulfonamido)ethyl]phosphoric acid
M4-8:2 diPAP (SS)		C ₁₆ H ₉ F ₃₄ O ₄ P + ¹³ C ₄	Tris[2-(perfluorohexyl)ethyl] Phosphate
M4-6:2 diPAP (IS)		C ₁₂ H ₇ F ₂₅ O ₆ P + ¹³ C ₄	Bis(1H,1H,2H,2H-[1,2- ¹³ C ₂]perfluorodecyl)phosphate
4:2 FTOH	2043-47-2	C ₆ H ₅ F ₉ O	Bis(1H,1H,2H,2H-[1,2- ¹³ C ₂]perfluorooctyl)phosphate
6:2 FTOH	647-42-7	C ₈ H ₅ F ₁₃ O	2-Perfluorobutyl ethanol (4:2)
8:2 FTOH	678-39-7	C ₁₀ H ₅ F ₁₇ O	2-Perfluorohexyl ethanol (6:2)
10:2 FTOH	865-86-1	C ₁₂ H ₅ F ₂₁ O	2-Perfluorooctyl ethanol (8:2)
6:2 FTAC	17527-29-6	C ₁₁ H ₇ F ₁₃ O ₂	2-Perfluorodecyl ethanol (10:2)
8:2 FTAC	27905-45-9	C ₁₃ H ₇ F ₁₇ O ₂	1H,1H,2H,2H-perfluorooctyl acrylate
10:2 FTAC	17741-60-5	C ₁₅ H ₇ F ₂₁ O ₂	1H,1H,2H,2H-Perfluorodecyl acrylate
6:2 FTMAC	2144-53-8	C ₁₂ H ₉ F ₁₃ O ₂	1H,1H,2H,2H-Perfluorododecyl acrylate
8:2 FTMAC	1996-88-9	C ₁₄ H ₉ F ₁₇ O ₂	1H,1H,2H,2H-perfluorooctyl methacrylate
MeFOSE	24448-09-7	C ₁₁ H ₈ F ₁₇ NO ₂ S	1H,1H,2H,2H-heptadecafluorodecyl methacrylate
EtFOSE	1691-99-2	C ₁₂ H ₁₀ F ₁₇ NO ₂ S	2-(N-methylperfluoro-1-octanesulfonamido)- ethanol
MeFBSE	34454-97-2	C ₇ H ₈ F ₉ NO ₃ S	2-(N-ethylperfluoro-1-octanesulfonamido)- ethanol
EtFBSE	34449-89-3	C ₈ H ₁₀ F ₉ NO ₃ S	1-Butanesulfonamide, 1,1,2,2,3,3,4,4,4- nonafluoro-N-(2-hydroxyethyl)-N-methyl- N-ethyl-1,1,2,2,3,3,4,4,4-nonafluoro-N-(2- hydroxyethyl)butane-1-sulfonamide
8:2 FTOAc	37858-04-1	C ₁₂ H ₇ F ₁₇ O ₂	1H,1H,2H,2H-Heptadecafluorodecyl acetate
10:2 FTOAc	37858-05-2	C ₁₄ H ₇ F ₂₁ O ₂	1H,1H,2H,2H-Perfluorododecyl acetate
PCBTF	98-56-6	C ₇ H ₄ ClF ₃	Parachlorobenzotrifluoride
M4-4:2 FTOH (SS)		C ₆ HF ₉ O + D ₄	2-Perfluorobutyl-[1,1,2,2- ² H ₄]-ethanol (4:2)
M2-8:2 FTOH (SS)		C ₈ H ₅ F ₁₇ O + ¹³ C ₂	2-Perfluorooctyl-[1,2- ¹³ C ₂]-ethanol (8:2)
dMeFOSE (SS)		C ₁₁ H ₁ F ₁₇ NO ₃ S + D ₇	2-(N-methyl-d ₃ -perfluoro-1- octanesulfonamido)ethan-d ₄ -ol
M4-8:2 FTOH (IS)		C ₈ H ₃ F ₁₇ O + ¹³ C ₂ D ₂	2-Perfluorooctyl-[1,1- ² H ₂]-[1,2- ¹³ C ₂]-ethanol (8:2)

Table S3. Surrogate standards (SS) and internal standards (IS) used to calculate PFAS concentrations. Surrogates were used as general indicators of overall analytical quality (i.e., recoveries) during the entire analytical process, and internal standards were used for quantitation for both SS and targeted compounds.

Native PFAS	SS for correction	IS for quantitation	SS	IS for quantitation
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Native PFAS	SS for correction	IS for quantitation	SS	IS for quantitation
TFA	¹³ C ₂ -TFA	MPFBA	¹³ C ₂ -TFA	MPFBA
PFPrA	¹³ C ₃ -PFPrA	MPFBA	¹³ C ₃ -PFPrA	MPFBA
PFPrA	M3PFBA	MPFBA	M3PFBA	MPFBA
PFBA	M3PFBA	MPFBA	MPFHxA	M8PFOA
PFPeA	M3PFBA	MPFBA	MPFOA	M8PFOA
PFHxA	MPFHxA	M8PFOA	MPFUnDA	M7PFUnDA
PFHpA	MPFHxA	M8PFOA	M2PFTeDA	M7PFUnDA
PFOA	MPFOA	M8PFOA	M3PFBS	M3PFHxS
PFNA	MPFOA	M8PFOA	MPFHxS	M3PFHxS
PFDA	MPFUnDA	M7PFUnDA	MPFOS	M8PFOS
PFUnDA	MPFUnDA	M7PFUnDA	M2-8:2 FTSA	M8PFOS
PFD _o DA	M2PFTeDA	M7PFUnDA	dMeFOSA	M8PFOS
PFT _r DA	M2PFTeDA	M7PFUnDA	M4-4:2 FTOH	M4-8:2 FTOH
PFTeDA	M2PFTeDA	M7PFUnDA	M2-8:2 FTOH	M4-8:2 FTOH
PFHxDA	M2PFTeDA	M7PFUnDA	dMeFOSE	d9-d9-EtFOSE
TFMS	M3PFBS	M3PFHxS	M4-8:2 diPAP	M4-6:2 diPAP
PFEtS	M3PFBS	M3PFHxS		
PFPrS	M3PFBS	M3PFHxS		
PFBS	M3PFBS	M3PFHxS		
PFPeS	MPFHxS	M3PFHxS		
PFHxS	MPFHxS	M3PFHxS		
PFHpS	MPFOS	M3PFHxS		
PFOS	MPFOS	M8PFOS		
PFNS	MPFOS	M8PFOS		
PFDS	MPFOS	M8PFOS		
PFECHS	MPFOS	M8PFOS		
Cl-PFOS	MPFOS	M8PFOS		
FBSA	M3PFBS	M3PFHxS		
FHxSA	MPFHxS	M3PFHxS		
FOSA	MPFOS	M8PFOS		
MeFOSA	dMeFOSA	M8PFOS		
EtFOSA	dMeFOSA	M8PFOS		
4:2 FTSA	M2-8:2 FTS	M3PFHxS		
6:2 FTSA	M2-8:2 FTS	M3PFHxS		
8:2 FTSA	M2-8:2 FTS	M8PFOS		
10: 2 FTSA	M2-8:2 FTS	M8PFOS		
FPrPA	M3PFBA	MPFBA		
FPePA	MPFOA	M8PFOA		
FHpPA	MPFOA	M8PFOA		
FOPA	MPFUnDA	M7PFUnDA		
FOSAA	MPFUnDA	M8PFOS		
N-MeFOSAA	MPFUnDA	M8PFOS		
N-EtFOSAA	MPFUnDA	M8PFOS		
6:2 FTUCA	MPFOA	M8PFOA		
8:2 FTUCA	MPFOA	M8PFOA		

Native PFAS	SS for correction	IS for quantitation	SS	IS for quantitation
10:2 FTUCA	MPFUnDA	M7PFUnDA		
6:6 PFPiA	MPFUnDA	M7PFUnDA		
6:8 PFPiA	MPFUnDA	M7PFUnDA		
8:8 PFPiA	MPFUnDA	M7PFUnDA		
PFHxPA	M3PFBA	MPFBA		
PFOPA	MPFHxA	M8PFOA		
PFDPA	MPFUnDA	M7PFUnDA		
PFMPA	M3PFBA	MPFBA		
PFMBA	M3PFBA	MPFBA		
NFDHA	MPFHxA	M8PFOA		
ADONA	MPFOA	M8PFOA		
PFEESA	MPFHxA	M8PFOS		
GenX	MPFHxA	M8PFOA		
HFPO-TA	MPFUnDA	M8PFOA		
P3MHpS/ P6MHpS	MPFOS	M8PFOS		
P7MOS	MPFOS	M8PFOS		
P3MHpA	MPFOA	M8PFOA		
P4MOA/ P7MOA	MPFOA	M8PFOA		
P355TMHxA	MPFOA	M8PFOA		
P37DMOA	MPFUnDA	M8PFOA		
6:2 diPAP	M4-8:2 diPAP	M4-6:2 diPAP		
6:2/8:2 diPAP	M4-8:2 diPAP	M4-6:2 diPAP		
8:2 diPAP	M4-8:2 diPAP	M4-6:2 diPAP		
10:2 diPAP	M4-8:2 diPAP	M4-6:2 diPAP		
diSAmPAP	M4-8:2 diPAP	M4-6:2 diPAP		
6:2 triPAP	M4-8:2 diPAP	M4-6:2 diPAP		

Table S4. Molar yield of PFCAs from the oxidation of M-2 8:2 FTS using the dTOP protocol employed for all the samples.

Molar Yields/%	PFPrA	PFBA	PFPeA	PFHxA	PFHpA	PFOA	PFNA
M-2 8:2 FTS	14.5 ± 1.3	15.7 ± 1.4	8.3 ± 0.2	19.0 ± 1.6	27.2 ± 2.1	11.6 ± 0.7	3.1 ± 0.5

Table S5. Instrumental parameters for the analysis of different groups of PFAS.

a) Instrumental parameters of LC-MS/MS for ionic PFAS analysis. Agilent 1290 Infinity II UPLC 6470 QQQ-MS

Column	Acquity BEH C18 1.7 μ m (2.1 id x 50 mm)	
Column temp	40 °C	
Mobile phase	A = 2 mM ammonium acetate in water; B = 2 mM ammonium acetate in methanol	
Flow rate	0.4 mL/min	
Injection volume	5 μ L	
Mode	Negative ESI using the Agilent jet spray ionization source	
Nebulizer	25 psi	
Gas flow	5 L/min	
Gas temp	300 °C	
Capillary voltage	2800 V	
Sheath gas temp	330 °C	
Sheath gas flow	11 L/min	

Ramp gradient		
Time (min)	%A	%B
0.0	90	10
0.5	90	10
1.0	60	40
17.5	0	100
18.0	90	10
Post-run (3 min)	90	10

b) Instrumental parameters of LC-MS/MS for PAPs analysis. Agilent 1290 Infinity II UPLC 6470 QQQ-MS

Column	Acquity BEH C18 1.7 μ m (2.1 id x 50 mm)	
Column temp	40 °C	
Mobile phase	A = 2 mM ammonium acetate + 5 mM N-Methylpiperidine in water; B = 2 mM ammonium acetate + 5 mM N-Methylpiperidine in methanol	
Flow rate	0.4 mL/min	
Injection volume	5 μ L	
Mode	Negative ESI using the Agilent jet spray ionization source	
Nebulizer	25 psi	
Gas flow	5 L/min	
Gas temp	300 °C	
Capillary voltage	2800 V	
Sheath gas temp	330 °C	
Sheath gas flow	11 L/min	
Ramp gradient		
Time (min)	%A	%B
0.0	90	10
0.5	90	10
1.0	70	30

7.5	0	100
8.0	90	10
Post-run (2 min)	90	10

c) Instrument parameters of LC-MS/MS for Ultra-short PFAS (TFA, PFPrA, TFMS, and PFEtS) analysis. Agilent 1290 infinity III with 6470 Triple Quad LC/MS

Column	Raptor Polar X, 2.7 μ m, 50 x 2.1 mm LC Column
Column temp	40 °C
Mobile phase	A = Water, 10 mM ammonium formate, 0.05% formic acid; B = 60:40 Acetonitrile:methanol, 0.05% formic acid
Flow rate	0.5 mL/min
Injection volume	20 μ L
Mode	Negative ESI using the Agilent jet spray ionization source
Nebulizer	25 psi
Gas flow	10 L/min
Gas temp	300 °C
Capillary voltage	2800 V
Sheath gas temp	330 °C
Sheath gas flow	11 L/min

Ramp gradient

Time (min)	%A	%B
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0.0	15	85
8.0	15	85

Table S6. Instrumental parameters for GC-MS analysis, Agilent 7890 GC–5977 B PCI-MS

Mode	Positive chemical ionization
Inlet temperature	200 °C
Transfer line temperature	200 °C
Injection mode	Pulsed splitless
Injection volume	2 µL
Carrier gas (He) flow rate	1 mL/min
Column	CP-Wax 57 CB, 25 m, 0.25 mm, 0.20 µm (Agilent J&W)
Reagent Gas	Methane
Source temperature	200 °C
Quad temperature	150 °C
Oven program	
Time (min)	Temperature (°C)
0.0	60
3.0	60
13.0	85
20.0	190
28.0	190

Table S7. Ionic PFAS compounds analyzed by LC-MS/MS under ESI (-) mode.

Abbr.	Retention time (min)	Mol. Wt.	Precursor ion [M-H/D]-	Fragmentor (volts)	Product ions (m/z)	Collision energy (volts)
TFA	1.839	113.99	113	70	69	16
PFPrA	1.616	163.99	162.9	64	119	5
PFBA	2.243	214.04	213.0	64	169 /	5 /
PFPeA	3.518	264.05	263.0	64	218.9 140.8	5 5
PFHxA	5.008	314.05	313.0	73	268.9 119	5 21
PFHpA	6.646	364.06	363.0	78	319 169	5 17
PFOA	8.186	414.07	413.1	83	369 169	5 17
PFNA	9.542	464.08	463.1	83	419 218.9	5 17
PFDA	10.712	514.08	513.0	93	468.9 269	5 17
PFUnDA	11.725	564.09	563.0	102	518.9 268.9	5 17
PFDoDA	12.601	614.10	613.0	102	569 269	9 21
PFTTrDA	13.347	664.11	663.1	107	619 169	9 29
PFTeDA	13.998	714.11	713.1	112	668.9 169	13 29

Abbr.	Retention time (min)	Mol. Wt.	Precursor ion [M-H/D]-	Fragmentor (volts)	Products (m/z)	Collision energy (volts)
PFHxDA	15.041	814.13	813.1	121	768.9	13
					168.9	37
TFMS	0.859	150.08	149	140	80	37
					98.9	33
PFETS	0.819	200.08	199	140	80	37
					98.9	33
PFPrS	2.748	250.09	249.1	140	80	37
					98.9	33
PFBS	3.876	300.10	299.0	149	80	37
					98.9	37
PFPeS	5.336	350.11	349.0	175	80	45
					98.9	37
PFHxS	6.885	400.11	399.0	179	80	45
					98.9	41
PFHpS	8.357	450.12	449.0	183	80	49
					98.9	45
PFOS	9.647	500.13	499.0	208	80	101
					98.9	49
PFNS	10.776	549.93	549.0	218	80	105
					98.9	49
PFDS	11.764	600.14	598.9	232	80	137
					98.9	53
PFECHS	8.096	462.13	461.0	150	380.9	29
					98.9	29
Cl-PFOS	9.897	516.58	515.0	203	80	105
					98.9	49
FOSA	11.159	499.14	498.0	169	78	37
					48.1	150

Abbr.	Retention time (min)	Mol. Wt.	Precursor ion [M-H/D]-	Fragmentor (volts)	Products (m/z)	Collision energy (volts)
6:2 Cl-PFESA	9.675	531.90	530.9	161	350.9	29
					83	29
8:2 Cl-PFESA	11.078	631.90	630.9	171	450.9	33
					83	33
4:2 FTSA	4.870	328.15	327.1	136	306.9	21
					81	33
6:2 FTSA	8.091	428.17	427.0	164	406.9	25
					81	41
8:2 FTSA	10.676	528.18	527.0	179	506.9	29
					81	41
10:2 FTSA	10.872	628.18	627.0	161	606.9	33
					81	45
FPrPA	2.673	242.1	241	94	116.9	41
					63	4
FPePA	6.47	342.1	341	108	216.9	25
					237	13
FHpPA	8.617	442.1	441	103	317	25
					337	9
FOPA	9.53	492.1	491	93	367	17
					386.9	9
FOSAA	9.424	557.18	556	142	497.9	29
					78	49
N-MeFOSAA	9.655	571.21	570	122	218.9	25
					419	17
N-EtFOSAA	10.015	585.24	584	122	218.9	25
					525.9	17
6:2 FTUCA	6.263	358.08	357	69	293	13

Abbr.	Retention time (min)	Mol. Wt.	Precursor ion [M-H/D]-	Fragmentor (volts)	Products (m/z)	Collision energy (volts)
					92.9	49
8:2 FTUCA	8.63	458.1	457	83	392.9	5
					342.9	49
10:2 FTUCA	10.273	558.11	557	93	492.9	9
					242.9	41
6:6 PFPiA	10.953	702.07	700.9	205	400.9	61
					63	100
6:8 PFPiA	11.841	802.09	800.9	195	63	100
					100.9	97
8:8 PFPiA	12.524	902.1	900.9	151	500.9	69
					63	100
PFHxPA	2.773	400.03	398.9	142	79	33
PFOPA	6.155	500.05	498.9	151	79	41
PFDPa	8.753	600.06	598.9	166	79	97
PFMPA	1.9	230.04	229	69	84.9	9
PFMBA	3.213	280.04	279	59	85.1	5
NFDHA	4.101	296.04	295	107	201	5
					85	25
ADONA	6.482	378.07	376.9	79	84.8	37
					250.9	5
PFEESA	4.15	316.1	314.9	161	135	25
					69	61
HFPO-TA	8.696	496.07	495	171	184.9	5
					119	49
P3MHpS/ P6MHpS	8.428	500.13	498.9	171	80	97
					98.9	49
P7MOS	9.293	549.93	548.9	220	80	100

Abbr.	Retention time (min)	Mol. Wt.	Precursor ion [M-H/D]-	Fragmentor (volts)	Products (m/z)	Collision energy (volts)
					98.9	53
P3MHpA	7.596	414.07	413.0	166	368.9	5
					169	17
P4MOA/ P7MOA	8.328	464.08	463.0	79	418.9	5
					168.9	17
P355TMHx A	8.328	464.08	463.0	190	218.9	5
					468.9	5
P37DMOA	9.485	514.08	513.0	200	69	49
					442.9	17
6:2 diPAP	6.050	789.98	789	132	97	37
					443	21
6:2/8:2 diPAP	6.232	889.98	889	156	96.9	33
8:2 diPAP	6.375	989.97	989	151	542.9	25
					96.8	37
10:2 diPAP	6.608	1189.97	1188.9	150	78.9	37
					525.9	17
diSAmPAP	6.502	1204	1203	150	679.9	20
					442.9	17
6:2 triPAP	6.758	1136.26	789	132	97	37
M4-8:2 diPAP (surrogate standard, SS)	6.373	994	993	137	97	37
					79	37
¹³ C ₂ -TFA (surrogate standard,	1.838	116	115	70	70	24

Abbr.	Retention time (min)	Mol. Wt.	Precursor ion [M-H/D]-	Fragmentor (volts)	Products (m/z)	Collision energy (volts)
SS)						
¹³ C ₃ -PFPrA (surrogate standard, SS)	1.628	167.04	166	64	121	5
M3PFBA (surrogate standard, SS)	2.242	217.04	216	64	172	5
MPFHxA (SS)	4.999	316.05	315.1	78	270	5
MPFOA (SS)	8.185	418.07	417.1	83	372	5
MPFUnDA (SS)	11.725	566.09	565.1	97	520	9
M2PFTeDA (SS)	13.997	716.11	715.1	116	669.9	13
M3PFBS (SS)	3.874	303.10	302.0	149	80	45
MPFHxS (SS)	6.882	404.11	403.0	169	84	49
MPFOS (SS)	9.646	504.13	503.0	198	80	93
M2-8:2 FTSA (SS)	10.675	530.18	529.0	195	509	33
MPFBA (internal standard, IS)	2.240	218.04	217.0	64	172	5
M8PFOA (IS)	8.184	422.07	421.1	83	376	5

Abbr.	Retention time (min)	Mol. Wt.	Precursor ion [M-H/D]-	Fragmentor (volts)	Products (m/z)	Collision energy (volts)
M7PFUnDA (IS)	11.724	571.09	570.0	97	525	9
M3PFHxS (IS)	6.883	403.11	402.0	184	80	45
M8PFOS (IS)	9.637	508.13	507.0	203	79.9	97
M4-6:2 diPAP (IS)	5.288	794	793	137	445	21

Table S8. PFAS analyzed by GC-MS under positive chemical ionization (PCI) mode.

Abbr.	Mol. Wt.	Retention time (min)	Quantifier	Qualifier
4:2 FTOH	264.09	6.430	265	227
6:2 FTOH	364.10	8.448	365	327
8:2 FTOH	464.12	10.311	465	427
10:2 FTOH	564.13	11.464	565	527
6:2 FTAc	418.15	6.462	419	399
8:2 FTAc	518.17	9.466	519	499
10:2FTAc	618.18	11.099	619	599
6:2 FTMAc	432.18	8.141	433	413
8:2 FTMAc	532.19	10.388	533	513
MeFOSE	557.22	15.636	558	540
EtFOSE	571.25	15.688	572	554
MeFBSE	357.21	15.636	358	340
EtFBSE	371.24	15.678	372	354
8:2FTOAc	506.16	7.277	507	535
10:2FTOAc	606.17	10.215	607	635
PCBTF	180.55	5.762	161	181
M4-4:2 FTOH (SS)	268.09	6.316	269	231
M4- 6:2FTOH (SS)	368.10	8.448	369	331
M2-8:2 FTOH (SS)	466.12	10.311	467	429

dMeFOSE (SS)	564.22	15.605	565	547
D9-EtFOSE (IS)	580.25	15.636	581	563
M4-8:2 FTOH (IS)	468.12	10.310	469	431

Table S9. Field, and procedural blanks for target analysis and for TOP and hydrolysis assay (ng, average \pm standard error), matrix spike recoveries (MS%, mean \pm standard error) and method detection limits (MDLs, after blank correction, ng/g) of individual PFAS analytes from the MS analyses. ORIG, TOP and HYD represent original extraction blank, the TOP assay blank, and hydrolysis blank samples, respectively.

	Blanks (ng)			MS recovery (%)		MDL (ng/g)		
	ORIG (n = 3)	dTOP (n = 3)	HYD (n = 4)	ORIG (n=3)	dTOP (n=2)	ORIG	dTOP	HYD
TFA	0.36 \pm 0.03	0.54 \pm 0.02	NA*	78.6 \pm 0.27	Not test	5.06	32.2	NA
PFPrA	0.06 \pm 0.01	0.31 \pm 0.07	NA	103 \pm 1.56	95.7 \pm 4.5	0.67	34.1	NA
PFBA	0.03 \pm 0.00	ND	NA	89.7 \pm 1.2	133 \pm 3.1	0.49	3.45	NA
PFPeA	ND**	0.039 \pm 0.004	NA	111 \pm 4.3	156 \pm 1.2	0.09	4.29	NA
PFHxA	ND	0.071 \pm 0.013	NA	84.4 \pm 1.5	21.5 \pm 1.7	0.07	6.98	NA
PFHpA	ND	ND	NA	86.4 \pm 0.64	77.3 \pm 1.5	0.05	4.73	NA
PFOA	ND	0.027 \pm 0.008	NA	89.4 \pm 0.89	86.6 \pm 4.1	0.04	5.20	NA
PFNA	ND	ND	NA	79.1 \pm 3.4	83.7 \pm 2.5	0.16	3.74	NA
PFDA	ND	ND	NA	84.1 \pm 2.7	80.0 \pm 4.7	0.16	6.29	NA
PFUnDA	ND	0.020 \pm 0.01	NA	91.5 \pm 2.4	74.7 \pm 2.4	0.10	1.80	NA
PFDoDA	ND	ND	NA	87.6 \pm 1.6	32.6 \pm 0.6	0.10	0.45	NA
PFTTrDA	0.01 (n=1)	ND	NA	82.8 \pm 1.0	12.7 \pm 2.0	0.14	0.30	NA
PFTeDA	ND	0.009 \pm 0.002	NA	84.7 \pm 2.3	7.8 \pm 1.6	0.08	0.97	NA
PFHxDA	0.05 \pm 0.00	0.024 \pm 0.001	NA	121 \pm 3.2	7.4 \pm 2.1	0.65	1.55	NA
TFMS	0.01 \pm 0.00	ND	NA	Not test	Not test	0.12	2.88	NA
PFEtS	ND	ND	NA	Not test	Not test	0.1	0.5	NA
PFPrS	ND	ND	NA	82.4 \pm 0.8	29.8 \pm 4.9	0.08	3.18	NA
PFBS	ND	0.007 (n=1)	NA	92.2 \pm 2.0	78.0 \pm 4.2	0.01	3.58	NA
PFPeS	ND	ND	NA	97.4 \pm 2.4	94.4 \pm 3.7	0.01	5.03	NA
PFHxS	ND	ND	NA	87.9 \pm 0.5	89.8 \pm 1.9	0.20	2.37	NA

PFHpS	ND	0.012±0.001	NA	114±4.3	74.0±1.7	0.06	4.34	NA
PFOS	0.011 (n=1)	0.011±0.001	NA	106±7.3	65.0±3.4	0.06	6.18	NA
PFNS	ND	ND	NA	103±5.7	65.7±0.5	0.02	4.40	NA
PFDS	ND	ND	NA	116±1.3	57.9±3.7	0.09	7.63	NA
PFECHS	ND	NA	NA	108±5.3	NA	0.03	7.58	NA
Cl-PFOS	ND	NA	NA	124±3.4	NA	0.05	NA	NA
4:2 FTSA	ND	NA	NA	89.7±3.5	NA	0.03	11.3	NA
6:2 FTSA	ND	NA	NA	108±5.7	NA	0.05	13.6	NA
8:2 FTSA	0.01 (n=1)	NA	NA	113±3.2	NA	0.03	19.3	NA
10:2 FTSA	ND	NA	NA	126±7.8	NA	0.013	31.5	NA
FBSA	ND	NA	NA	85.5±1.1	NA	0.30	4.31	NA
FHxSA	ND	NA	NA	111±2.6	NA	0.28	3.90	NA
FOSA	ND	NA	NA	109±3.2	NA	0.02	4.31	NA
MeFOSA	ND	NA	NA	111±4.7	NA	0.01	10.1	NA
EtFOSA	ND	NA	NA	105±3.1	NA	0.01	8.05	NA
4:2 FTOH	ND	NA	ND	67.2±0.7	NA	5.4	NA	27.0
6:2 FTOH	ND	NA	ND	87.4±10.8	NA	2.7	NA	14.6
8:2 FTOH	0.14±0.05	NA	0.12±0.21	89.3±0.7	NA	16.3	NA	22.1
10:2 FTOH	ND	NA	ND	103±2.6	NA	8.7	NA	42.3
MeFOSE	0.85±0.02	NA	0.65±0.02	91.5±0.3	NA	9.5	NA	134.9
EtFOSE	ND	NA	ND	91.5±0.3	NA	5.4	NA	29.2
MeFBSE	ND	NA	0.85±0.13	92.8±1.8	NA	2.6	NA	42.7
EtFBSE	ND	NA	ND	93.2±2.7	NA	2.6	NA	14.1
8:2FTOAc	ND	NA	ND	87.2±1.8	NA	2.6	NA	14.1
10:2FTOAc	ND	NA	ND	89.1±3.1	NA	2.6	NA	14.1
6:2 FTAc	ND	NA	ND	79.3±1.2	NA	2.6	NA	14.0
8:2 FTAc	ND	NA	ND	90.0±1.3	NA	3.3	NA	17.8
10:2 FTAc	ND	NA	ND	92.2±5.9	NA	12.9	NA	69.6
6:2 FTMAc	ND	NA	ND	82.3±0.23	NA	2.9	NA	15.7
8:2 FTMAc	ND	NA	ND	82.1±2.3	NA	5.5	NA	29.7
PCBTF	ND	NA	ND		NA	2.6	NA	13.1
10:2 diPAP	ND	NA	NA	67.5±1.1	NA	0.09	NA	NA
diSAmPAP	ND	NA	NA	70.2±1.9	NA	0.06	NA	NA
6:2 diPAP	0.003±0.00	NA	NA	89.6±0.35	NA	0.07	NA	NA
6:2/8:2 diPAP	ND	NA	NA	90.6±1.3	NA	0.01	NA	NA

8:2 diPAP	ND	NA	NA	79.7±1.1	NA	0.10	NA	NA
6:2 triPAP	ND	NA	NA	NA	NA	0.06	NA	NA

*NA: Not Applicable.

**ND: Not Detected.

Table S10. Surrogate recoveries (% , average ± standard error) for original extraction and dTOP assay process.

	ORIGINAL	dTOP
13C ₂ -TFA	89.4 ± 3.8	NA*
13C ₃ -PFPrA	114 ± 3.2	NA
M3PFBA	102 ± 0.8	118 ± 1.4
M3PFBS	80.9 ± 0.9	NA
MPFHxA	70.5± 1.4	75.3 ± 2.2
MPFHxS	90.5 ± 1.5	NA
MPFOA	88.6 ± 1.1	111 ± 1.6
MPFOS	83.8 ± 1.5	NA
MPFUdA	83.6 ± 0.9	NA
M2PFTeDA	84.8 ± 1.9	NA
M2-8:2 FTSA	113 ± 7.4	NA
dMeFOSA	88.8 ± 4.5	NA
M4-4:2 FTOH	69.5 ± 0.7	NA
M4-6:2 FTOH	78.2 ± 0.9	NA
M2-8:2 FTOH	89.1 ± 1.1	NA

dMeFOSE	94.7 ±0.6	NA
M4-8-2 diPAP	94.6 ± 3.2	NA

*NA: Not Applicable.

Table S11. Recoveries of analytes in the filter test.

PFCAs	Recoveries ±SE/%	PFDS	105.6±4.2	FOSAAs	Recoveries ±SE/%
TFA	96.0±8.6	8Cl-PFOS	109.6±12.9	FOSAA	90.6±3.1
PFPrA	98.0±2.4	PFECHS	109.6±3.7	N-EtFOSAA	82.3±1.0
PFBA	102.5±3.7			N-MeFOSAA	86.2±12.2
PFPeA	89.2±1.9	FTSs	Recoveries ±SE/%	Ethers	Recoveries ±SE/%
PFHxA	96.6±3.8	4:2 FTS	101.2±1.1	6-2 Cl PFESA	108.6±4.9
PFHpA	102.3±4.3	6:2 FTS	98.2±1.9	8-2 Cl PFESA	105.9±3.6
PFOA	98.3±4.7	8:2 FTS	112.7±9.9	PFEESA	119.4±5.1
PFNA	99.7±8.2	10:2 FTS	103.8±2.4	PFPIs	Recoveries ±SE/%
PFDA	89.6±0.4	FTUAs	Recoveries ±SE/%	6:6PFPIA	85.1±1.4
PFUdA	103.2±1.4	FHUEA	72.1±3.4	6:8PFPIA	85.4±2.9
PFDoA	87.3±1.5	FOUEA	87.0±3.4	8:8PFPIA	87.3±1.4
PFTTrDA	87.0±2.1	FDUEA	72.9±3.1	SURROGATES	Recoveries ±SE/%
PFTeDA	91.9±1.6	FTAs	Recoveries ±SE/%	dMeFOSA	107.0±2.3
PFHxDA	86.4±0.8	FPrPA	111.5±9.4	M2-8:2 FTS	90.8±15.4
PFSAs		FPePA	112.6±6.9	MPFOS	99.2±0.9
PFPrS	95.6±2.7	FHpPA	112.5±5.1	MPFUdA	91.7±4.2
PFBS	100.2±3.5	FASAs		M2PFTeDA	83.5±0.2
PFPeS	108.4±1.3	FBSA	97.4±2.9	M3PFBA	92.4±3.0
PFHxS	98.1±3.6	FHxSA	113.8±4.1	M3PFBS	87.4±2.7
PFHpS	116.6±3.2	FOSA	126.6±1.7	MPFHxA	86.7±4.9

PFOS	117.0±4.2	MeFOSA	110.6±8.8	MPFHxS	89.4±2.4
PFNS	105.2±7.0	EtFOSA	109.5±8.2	MPFOA	92.2±3.7

Table S12. Parameters assigned to individual PFASs (detection frequencies $\geq 50\%$ in the dust) for estimation of daily PFAA intake by dismantle worker via dust ingestion. The 5th percentile, median, and 95th percentile dust concentrations (C_{dust}) were applied for low (L)-, intermediate (M)-, and high (H)-exposure scenarios, respectively. Quantity of ingested dust (q_{dust}), fraction of time work ($f_{\text{time_work}}$), and body weight (m_{bw}) of worker were based on USEPA¹³ and Winkens, et al.¹⁴. The gastrointestinal uptake factor (F_{uptake}) and the biotransformation ($F_{\text{biotransf.}}$, applicable to precursor compounds only) of individual PFAS compounds were summarized by Gebbink, Berger and Cousins¹⁰ and some values were from Wu, et al.³ We assumed that workers were exposed 8h/day for 5 days in the facility, so $f_{\text{time_work}} = (5*8)/(7*24) = 0.238$.

	C_{dust} (ng/g)			q_{dust} (mg/day, worker)			$f_{\text{time_work}}$	m_{bw} (kg)	F_{uptake}			$F_{\text{biotransf.}}$		
	L	M	H	L	M	H			L	M	H	L	M	H
TFA	39.9	107.4	181.3	20	40	60	0.238	70	0.66	0.8	0.91			
PFPrA	2.5	8.1	22.0	20	40	60	0.238	70	0.66	0.8	0.91			
PFBA	1.2	4.4	11.3	20	40	60	0.238	70	0.66	0.8	0.91			
PFPeA	0.9	2.9	10.8	20	40	60	0.238	70	0.66	0.8	0.91			
PFHxA	2.0	5.4	16.2	20	40	60	0.238	70	0.66	0.8	0.91			
PFHpA	1.9	4.5	12.4	20	40	60	0.238	70	0.66	0.8	0.91			
PFOA	12.1	33.6	81.1	20	40	60	0.238	70	0.66	0.8	0.91			
PFNA	1.2	5.2	18.1	20	40	60	0.238	70	0.66	0.8	0.91			
PFDA	1.4	3.8	9.2	20	40	60	0.238	70	0.66	0.8	0.91			
PFUnDA	0.8	4.7	21.0	20	40	60	0.238	70	0.66	0.8	0.91			
PFDoDA	1.0	2.8	6.1	20	40	60	0.238	70	0.66	0.8	0.91			
PFTTrDA	0.3	1.2	7.7	20	40	60	0.238	70	0.66	0.8	0.91			
PFTeDA	1.2	3.8	8.7	20	40	60	0.238	70	0.66	0.8	0.91			
P4MOA &P7MOA	0.5	1.3	1.5	20	40	60	0.238	70	0.66	0.8	0.91			
TFMS	2.0	32.8	162.6	20	40	60	0.238	70	0.66	0.8	0.91			
PFPrS	0.2	1.1	3.2	20	40	60	0.238	70	0.66	0.8	0.91			
PFBS	8.3	62.0	586.0	20	40	60	0.238	70	0.66	0.8	0.91			
PFHxS	1.3	5.4	10.8	20	40	60	0.238	70	0.66	0.8	0.91			
PFOS	4.1	20.1	63.3	20	40	60	0.238	70	0.66	0.8	0.91			
PFDS	2.0	6.9	27.4	20	40	60	0.238	70	0.66	0.8	0.91			

6:2 FTSA	10.1	21.5	132.2	20	40	60	0.238	70	0.66	0.8	0.91	0.0002	0.005	0.017
8:2 FTSA	1.8	7.9	42.3	20	40	60	0.238	70	0.66	0.8	0.91	0.0002	0.005	0.017
10:2 FTSA	4.9	11.0	71.4	20	40	60	0.238	70	0.66	0.8	0.91	0.0002	0.005	0.017
6:2 diPAP	37.4	160.3	2980.3	20	40	60	0.238	70	0.66	0.8	0.91	0.0012	0.006	0.02
6:2-8:2 diPAP	32.1	71.9	365.0	20	40	60	0.238	70	0.66	0.8	0.91	0.0012	0.006	0.02
8:2 diPAP	12.3	30.5	130.7	20	40	60	0.238	70	0.66	0.8	0.91	0.0012	0.006	0.02
10:2 diPAP	8.2	20.4	83.0	20	40	60	0.238	70	0.66	0.8	0.91	0.0012	0.006	0.02
diSAmPAP	1.3	3.9	10.7	20	40	60	0.238	70	0.66	0.8	0.91	0.0012	0.006	0.02
6:2 triPAP	1.7	6.2	34.3	20	40	60	0.238	70	0.66	0.8	0.91	0.0018	0.009	0.03
6:6 PFPiA	0.2	0.4	0.8	20	40	60	0.238	70	0.66	0.8	0.91	0.0012	0.006	0.02
8:8 PFPiA	0.1	0.1	0.3	20	40	60	0.238	70	0.66	0.8	0.91	0.0012	0.006	0.02
FOSA	0.2	0.9	5.9	20	40	60	0.238	70	0.66	0.8	0.91	0.095	0.2	0.32
N-MeFOSAA	4.6	30.8	331.0	20	40	60	0.238	70	0.66	0.8	0.91	0.095	0.2	0.32
6:2 FTOH	23.9	49.3	119.7	20	40	60	0.238	70	0.27	0.38	0.56	0.006	0.003	0.01
8:2 FTOH	11.4	22.4	159.4	20	40	60	0.238	70	0.27	0.38	0.56	0.006	0.003	0.01
10:2 FTOH	15.2	60.3	213.7	20	40	60	0.238	70	0.27	0.38	0.56	0.006	0.003	0.01
8:2 FTMAcr	25.9	51.6	1316.4	20	40	60	0.238	70	0.66	0.8	0.91	0.006	0.003	0.01
MeFOSE	4.7	8.6	17.8	20	40	60	0.238	70	0.66	0.8	0.91	0.095	0.2	0.32
EtFOSE	14.6	36.3	137.5	20	40	60	0.238	70	0.66	0.8	0.91	0.095	0.2	0.32

Table S13-S15 included as separate excel spreadsheets.

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