SUPPORTING MATERIALS FOR:

Fecal Excretion of Perfluoroalkyl and Polyfluoroalkyl Substances in Pets from New York State, United States

Jing Ma,[†,‡] Hongkai Zhu,[†] and Kurunthachalam Kannan*[,†,§]

[†]Wadsworth Center, New York State Department of Health, Albany, New York 12201, United States

[‡]School of Environmental and Chemical Engineering, Shanghai University, Shanghai 200444, China

[§]Department of Pediatrics, New York University School of Medicine, New York, New York 10016, USA

* Corresponding author:

Kurunthachalam Kannan

Tel: 518-474-0015;

Fax: 518-473-2895;

Email: kurunthachalam.kannan@health.ny.gov

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25 **Table S1.** Information of Cat Feces

Sample ID	Age	Gender	Breed	Moisture (%)
C1	4.5 years	Female	unknown	40
C2	4.5 years	Male	dsh	63
C3	5 years	Male	unknown	38
C4	12 years	Male	dlh	58
C5	5 years	Male	dsh	56
C6	8 years	Male	dsh	10
C7	4 years	Male	dsh	10
C8	16 years	Female	siamese	54
C9	15 years	Male	house cats	48
C10	7 years	Male	black/white cat	59
C11	10 years	Female	uknown	58
C12	10 years	Male	domestic longhair	53
C13	adult	Male	dsh	63
C14	3 years	Male	dsh	71
C15	young	Female	dsh	60
C16	adult	Female	maine coon	57
C17	9 years	Male	dsh	56
C18	young	Female	dsh	64
C19	2 years	Female	dsh	45
C20	adult	Female	dsh	57
C21	adult	Female	dsh	45
C22	adult	Female	dsh	55
C23	8 years	Female	dsh	67
C24	2 years	Male	dsh	50
C25	11 months	Female	dsh	66
C26	10-12 weeks	Female	dmh	58
C27	4 years	Male	dsh	58
C28	12-12 weeks	Male	dmh	54
C29	adult	Male	dsh	56
C30	6 years	Female	single mix	44
C31	2 years	Female	dsh	56
C32	9 years	Male	dsh	59
C33	10 years	Male	dsh	53
C34	adult	Male	dsh	52
C35	7 years	Male	dsh	48
C36	adult	Male	dsh	66
C37	adult	Male	dsh	62
C38	adult	Female	dsh	71
C39	8 years	Female	dsh	68
C40	6 years	Female	tortoiseshell	66
C41	9 years	Male	siamese	61

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Table S2. Information of Dog Feces

Sample ID	Age	Gender	Breed	Moisture (%)
D1	4 years	Female	unknown	61
D2	11 years	Male	shetland sheep	73
D3	10 years	Male	german wirehaired pointer	75
D4	8 years	Memale	cairn terrier	67
D5	2 years	Male	corgi mix	64
D6	12 years	Female	terrier mix	73
D7	4 years	Male	lab-pointer	74
D8	2 years	Female	aus shepherd	70
D9	8 years	Male	yorkshire terrier	74
D10	12 years	Female	wheaten terrier mix	63
D11	9 months	Female	bernese mountain	73
D12	1 years	Male	great pyrenees/australian shepherd	71
D13	7 years	Female	boxer mixes	69
D14	4 years	Male	boxer mixes	53
D15	10 years	Female	german shepherd	54
D16	3 years	Female	beagle	50
D17	3 years	Female	lab mix	67
D18	4 years	Male	old english bulldogge	65
D19	1 years	Male	Pirbull/hound mix	65
D20	5 years	Female	pitbull mixes	61
D21	10 months	Male	german shepherd	68
D22	11 months	Male	australian shepherd mix	65
D23	7 years	Female	boxer mixes	64
D24	adult	Female	husky	67
D25	7 years	Male	mastiff mix	66
D26	7 years	Female	old english bulldogge	53
D27	4 years	Female	pitbull mixes	65
D28	3 years	Male	pitbull mixes	63
D29	2 years	Female	hound	65
D30	5 years	Female	shih tzu	60
D31	1.5 years	Male	pitbull mixes	60
D32	2 years	Male	great pyrenees	61
D33	1 years	Male	shepherd/husky	68
D34	4 years	Male	havanese	66
D35	5 years	Female	cattle dog	65
D36	9 years	Male	shephered mix	65
D37	4 years	Male	boxer lab mix	64

Table S3. MS parameters of target analytes and corresponding internal standards

Analyte	Parent ion (*m*/*z*)	Daughter ion (*m*/*z*)	Declustering Potential (DP, V)	Collision Energy (CE,V)	Entrance Potential (EP, V)	Cell Exit Potential (CXP, V)
PFBA	213	169	-40	-13	-7	-15
$^{13}C_3$-PFBA	216	172	-40	-13	-7	-15
PFPeA	263	219	-35	-12	-10	-12
$^{13}C_3$-PFPeA	266	222	-35	-12	-10	-12
PFHxA	313	269	-45	-13	-7.5	-12
$^{13}C_2$-PFHxA	315	270	-45	-13	-7.5	-12
PFHpA	363	319	-40	-13	-7.5	-12
$^{13}C_4$-PFHpA	367	322	-40	-15	-7	-15
PFOA	413	369	-60	-15	-5	-15
$^{13}C_4$-PFOA	417	372	-60	-15	-5	-15
PFNA	463	419	-70	-15	-5	-15
$^{13}C_5$-PFNA	468	423	-70	-15	-5	-15
PFDA	513	469	-80	-17	-5	-10
$^{13}C_2$-PFDA	515	470	-80	-17	-5	-10
PFUnDA	563	519	-80	-15	-5	-15
$^{13}C_2$-PFUnDA	565	520	-80	-15	-5	-15
PFDoDA	613	569	-80	-19	-5	-15
$^{13}C_2$-PFDoDA	615	570	-80	-19	-5	-15
PFBS	299	80	-70	-65	-10	-8
PFHxS	399	80	-100	-65	-10	-9
$^{18}O_2$PFHxS	403	84	-100	-65	-10	-9
PFOS	499	99	-85	-70	-10	-10
$^{13}C_4$-PFOS	503	99	-85	-70	-10	-10
PFDS	599	80	-180	-76	-10	-10
PFOSA	498	78	-75	-70	-10	-9
$^{13}C_8$-PFOSA	506	78	-75	-70	-12	-8
N-MeFOSAA	570	419	-130	-29	-5	-15
D_3-N-MeFOSAA	573	419	-130	-29	-5	-15

Table S4 Instrumental performance, matrix spiked recoveries, procedure blanks, limit of quantitation (ng/mL)

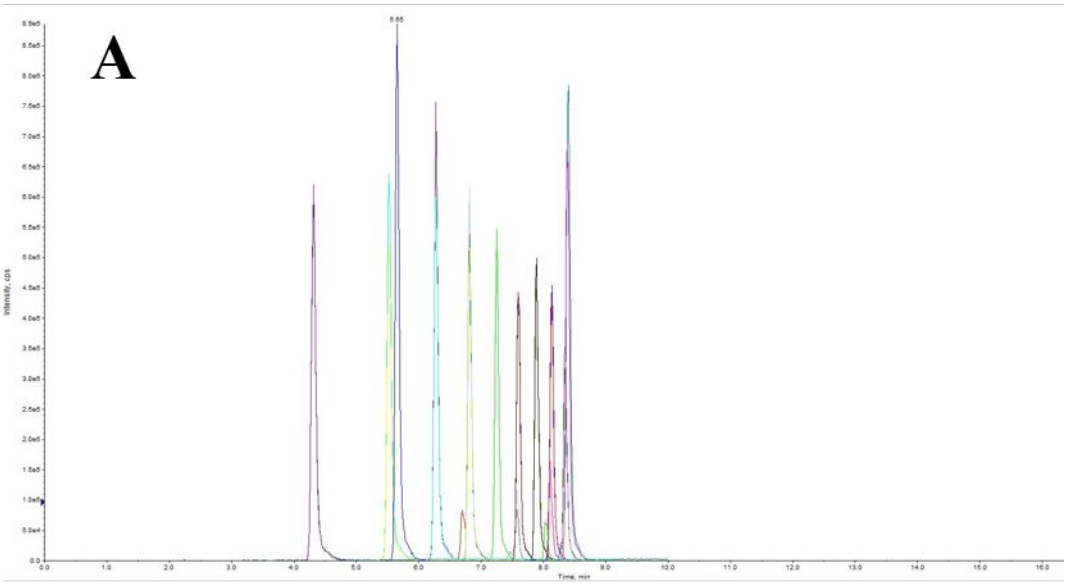
Analytes	IS	% IS recovery	% Matrix spike recovery (n=4)		Procedure blanks	LOD	LOQ
			10 ng/g	100 ng/g			
PFBA	$^{13}C_3$-PFBA	107 ± 32	91 ± 16	85 ± 9	ND	0.45	1.51
PFPeA	$^{13}C_3$-PFPeA	72 ± 27	86 ± 12	102 ± 4	0.43 ± 0.95	0.49	1.66
PFHxA	$^{13}C_2$-PFHxA	74 ± 18	101 ± 18	115 ± 11	ND	0.58	1.94
PFHpA	$^{13}C_4$-PFHpA	108 ± 28	64 ± 14	63 ± 8	ND	0.74	2.46
PFOA	$^{13}C_4$-PFOA	79 ± 22	93 ± 10	96 ± 11	1.63 ± 2.28	0.25	0.84
PFNA	$^{13}C_5$-PFNA	72 ± 22	84 ± 12	94 ± 21	4.69 ± 4.00	0.51	1.70
PFDA	$^{13}C_2$-PFDA	95 ± 24	90 ± 16	97 ± 9	1.58 ± 2.93	0.14	0.47
PFUnDA	$^{13}C_2$-PFUnDA	103 ± 23	89 ± 10	85 ± 12	ND	0.56	1.85
PFDoDA	$^{13}C_2$-PFDoDA	98 ± 29	75 ± 13	77 ± 9	ND	0.89	2.98
PFBS	$^{18}O_2$PFHxS		107 ± 20	60 ± 12	ND	0.12	0.39
PFHxS	$^{18}O_2$PFHxS	50 ± 13	96 ± 6	103 ± 4	2.63 ± 0.10	0.04	0.12
PFOS	$^{13}O_4$-PFOS	59 ± 7	80 ± 12	91 ± 7	ND	0.15	0.5
PFDS	$^{13}C_3$-PFBA		54 ± 10	56 ± 7	ND	0.03	0.1
PFOSA	$^{13}C_8$-PFOSA	40 ± 6	102 ± 11	102 ± 5	0.80 ± 0.67	0.03	0.1
N-MeFOSAA	D_3-N-MeFOSAA	67 ± 32	101 ± 17	90 ± 11	ND	0.4	1.34

IS: internal standard, average recoveries ± standard deviation (SD)
LOD: limit of detection, defined as the minimum amount of analyte that yielded a signal-to-noise ratio of 3:1.
LOQ: limit of quantitation, defined as the minimum amount of analyte that yielded a signal-to-noise ratio of 10:1.

Table S5 Concentrations (ng/g wet weight) and cumulative daily excretion (CDX, ng/kg-bw/day) of 9 PFASs in cat and dog feces collected from the Albany area of New York State, United States

	PFBA	PFPeA	PFHxA	PFOA	PFNA	PFDA	PFUnDA	PFDoDA	PFOSA	∑PFASs
Cat (n = 41)										
Moisture (%)	54.5% (mean)									
Mean	0.99	1.35	2.47	1.44	3.49	3.56	4.11	4.47	0.31	25.0
Median	0.73	1.23	2.04	1.09	1.42	3.52	2.93	5.27	0.30	21.3
Min	ND	ND	ND	ND	ND	ND	ND	ND	ND	8.40
Max	7.82	3.57	8.21	4.70	40.7	15.3	37.3	12.2	0.96	82.7
CDX										
Mean	5.2	7.1	13.1	7.6	18.5	18.9	21.8	23.7	1.6	118
σ	0.9	1.2	2.2	1.3	3.1	3.2	3.7	4.0	0.3	20
Min	-	-	-	-	-	-	-	-	-	31.1
Max	41.5	18.9	43.5	24.9	216	81.0	197	64.6	5.1	351
Dog (n = 37）										
Moisture (%)	65.1% (mean)									
Mean	0.60	1.44	1.38	1.04	12.4	5.67	2.22	4.19	0.25	31.7
Median	0.61	1.26	1.14	0.99	1.04	1.67	1.93	4.41	0.25	17.1
Min	ND	ND	ND	ND	ND	ND	ND	ND	ND	6.24
Max	1.90	3.32	7.77	3.24	194	109	8.27	7.09	0.78	223
CDX										
Mean	7.4	17.5	16.8	12.7	152	69.2	27.1	51.1	3.0	357
σ	0.5	1.2	1.2	0.9	11	4.8	1.9	3.6	0.2	25
Min	-	-	-	-	-	-	-	-	-	51.0
Max	23.1	40.5	95	39.6	2367	1332	101	86.5	9.6	2663

Only analytes with detection frequency higher than 50% were included in this calculation; ND: not detected; "-": data not available due to no detection; σ: uncertainty.



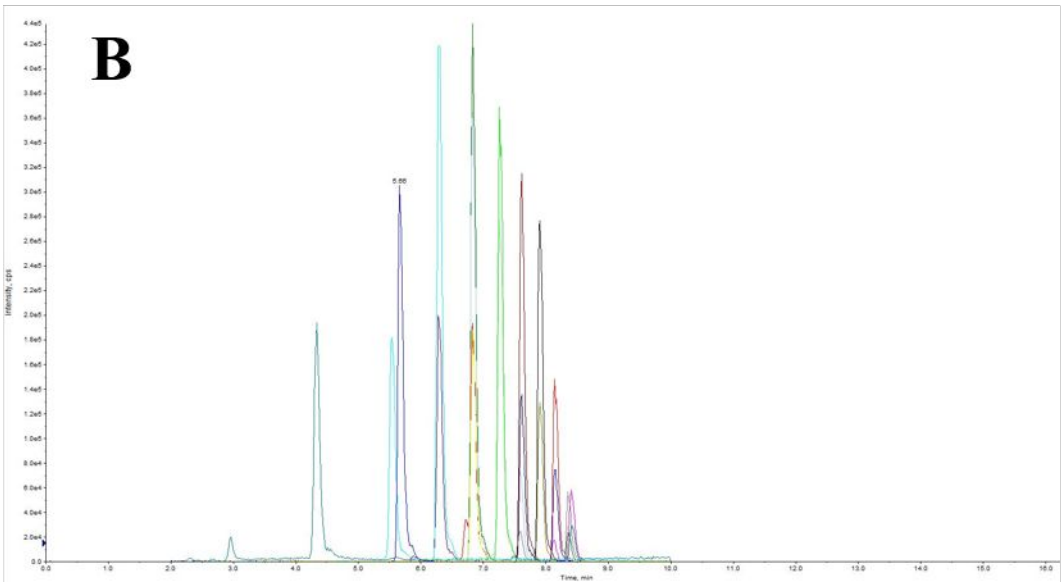


Figure S1. Chromatograms for standard (A) and real feces sample (B)