

Supplementary Material

Simultaneous chemical and sensory analysis of domestic cat urine and feces with headspace solid-phase microextraction and GC-MS-olfactometry

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Table S1: Aroma description as recorded by the panelist for fresh cat urine 10 min extraction

Retention time	Description	Event width (min)	Intensity
2.67	Unknown	0.11	6
4.63	Unknown	0.09	10
10.27	Unknown	0.07	15
15	Herbaceous, mint	0.1	25
16.26	Rain, dirt	0.25	20
17.57	Alcohol	0.08	11
17.82	Mint	0.1	20
21.3	Unknown	0.06	6
24.88	unknown	0.08	11
25.07	Unpleasant 1	0.38	15
27.44	Unknown	0.06	11
28.21	Unknown	0.07	10
28.47	Unpleasant	0.1	15

Table S2: Aroma description as recorded by the panelist for fresh cat urine 50 min extraction

Retention time	Description	Event width (min)	Intensity
2.70	urinous, unpleasant2	0.50	50
3.37	unknown	0.26	16
4.62	sweet	0.18	20
8.1	unknown	0.03	6
8.99	Unknown	0.08	10
10.26	Sweet	0.07	10
11.18	Unknown	0.07	10
11.44	Unknown	0.3	21
12.40	Unknown	0.12	12

12.55	Basmati rice	0.4	41
13.00	Mint	0.1	15
13.13	Dirt, rain	0.34	30
14.45	Woody	0.13	21
14.92	Mint, herbaceous	0.47	35
16.14	Rain, cardboard, unpleasant, wild	0.64	40
16.92	Nutty, neutral	0.37	21
17.79	Unknown	0.02	11
17.88	Burnt	0.13	21
18.37	Plastic, neutral	0.22	20
19.30	Unknown	0.06	5
20.91	Unknown	0.1	6
23.47	Unknown	0.05	6
24.58	unknown	0.09	15
24.71	Unpleasant	0.98	40
27.45	Unknown	0.79	15
28.75	Animal	0.36	26

Table S3: Aroma description as recorded by the panelist for stale cat urine 50 minutes extraction

Retention time	Description	Event width (min)	Intensity
2.56	Foul, fishy	0.37	30
3.06	Sweet	0.19	20
3.39	Unknown	0.05	16
4.55	Chemical	0.22	35
4.81	Chemical	0.18	16
5.32	Grassy	0.17	21
8.05	Acidic	0.2	20
8.35	Vinegar, Burnt	0.51	20
9.09	Foul, burnt	0.57	24
11.13	Neutral	0.17	21
11.40	Chemical, unpleasant 2	0.68	35
12.10	Basmati rice, nutty	0.87	50
12.98	Mint	0.12	40
13.12	Grassy, wild	0.32	45
13.82	Medicinal, butter, mint	0.84	51
14.94	Mint	0.32	50
16.13	Sweaty	0.36	41
16.6	Herbaceous	0.23	46
16.89	Sour, pleasant1, fruity, burnt, fruity	0.62	45
17.85	Burnt, smokey	0.38	45
18.69	Plastic	0.29	25
20.75	Smokey, neutral, butter	0.45	16
23.36	Smokey	0.19	11
24.32	Foul, animal, urinous, unpleasant 3	1.56	75
26.15	Foul, unpleasant 3, urinous	1.55	75

28.27	Foul, acidic, medicinal, burnt, unpleasant 2	2.07	50
31.14	Smokey, acidic, burnt	1.02	30
34.38	Animal, ruinous, smokey	1.28	30

Table S4: Aroma description as recorded by the panelist for fresh feces 50 min extraction

Retention time	Description	Event width (min)	Intensity
2.45	Foul	0.12	16
2.63	foul	0.23	20
3.31	Chemical, sweet, alcohol, chlorine	0.26	40
3.73	Chemical, alcohol	0.38	30
4.50	butter	0.33	40
5.44	unknown	0.18	21
6.27	Herbaceous	0.21	30
6.92	Mint	0.11	31
7.66	unknown	0.11	21
8.53	Foul	0.17	31
8.8	floral	0.07	21
10.36	Chemical, sweet	0.08	20
11.32	Chemical, medicinal	0.28	40
12.05	Floral, banana	0.32	41
12.58	Earthy, basmati rice, sour, nutty	0.26	45
13.09	Rain, grassy, neutral	0.26	30
13.38	Burnt	0.35	30
13.76	Unpleasant1, old cheese	0.55	40
14.33	Butter	0.57	45
14.99	medicinal	0.23	30
15.91	Medicinal, popcorn, dirt, butter, popcorn	0.80	50
16.92	Sweet, fruity	0.42	40
17.82	Smokey, body odor	0.66	41
19.27	Butter, basmati rice, butter	0.86	60
20.61	Woody, wild	0.72	50
21.9	neutral	0.25	15
22.54	medicinal	0.11	15
24.14	Foul, urinous, animal	1.41	90
26.05	Medicinal, unpleasant1	0.87	40
27.54	Medicinal, unpleasant, foul	1.14	60
28.92	animal	0.52	50
30.63	Urinous, animal	0.81	51
33.67	Plastic, Burnt	1.21	30
34.92	floral	0.77	20

Table S5: Aroma description as recorded by the panelist for stale feces 15 min eqm, 50 min extraction

Retention time	Description	Event width (min)	Intensity
1.26	Sweet	0.27	15
2.7	Unpleasant, fishy	0.72	40
3.66	unpleasant	0.42	16
4.57	Sweet, nutty	0.25	30
5.81	burnt	0.41	40
6.4	Unpleasant	0.24	15
7.46	Burnt	0.17	20
7.79	Unpleasant, burnt plastic	0.48	35
8.67	Burnt, smokey	0.41	24
10.56	plastic	0.15	20
11.41	Potato, onion, urinous	0.66	55
12.48	Vinegar, popcorn, potato	0.53	60
13.18	Chemical, unpleasant	1.16	50
14.36	Vinegar, nutty	0.43	75
14.97	Mushroom, earthy, plastic	0.30	65
16.02	Soil, foul, acidic	0.29	70
16.9	Unpleasant, plastic	0.29	67
17.69	Unpleasant	0.17	39
17.89	Plastic, chemical, dirt	0.39	70
18.54	Unpleasant	0.1	21
19.13	Unpleasant	0.11	25
19.39	Popcorn, medicinal, chemical	0.59	20
20.69	Chemical	1.49	55
22.29	Unpleasant, burnt, plastic	0.91	45
23.88	Foul, gas	1.72	75
25.78	Animal, foul, burnt	1.82	50
27.73	Animal, barnyard	0.92	50
29.4	Animal, foul, chemical	0.88	65
30.66	Animal, foul	0.55	40
31.46	Chemical, burnt, plastic	0.47	55
32.38	Dirt, plastic, chemical	0.73	49
33.3	Chemical, animal	0.54	50
34.22	Plastic	0.35	30
34.82	Unpleasant	0.31	20
35.4	Plastic	0.49	35

Table S6: Aroma description as recorded by the panelist for stale cat feces, 24 h equilibrium and 50 min extraction

Retention time	Description	Event width (min)	Intensity
2.73	Foul, fishy	0.64	61
4.55	Sweet, fruity, butter	0.32	30
11.51	Neutral, potato	0.51	15
12.51	Chemical, medicinal, basmati rice, neutral, old cheese	0.55	51
13.09	Rain, mint	0.48	30
13.76	Dirt, foul, old cheese	0.52	45
14.30	Garlic, butter, unpleasant	0.50	45
14.94	Sweet	0.32	41
16.00	Butter, onion, old cheese, grassy, herbaceous, woody	0.46	51
16.77	Butter, acidic, popcorn	0.71	51
17.85	Smokey, burnt, plastic	0.65	45
19.34	Smokey	0.14	21
19.6	Butter, popcorn	0.28	25
20.8	Neutral, woody	0.69	25
21.77	Medicinal, chemical	0.16	25
24.33	Unpleasant 2, urinous, unpleasant3, animal	3.4	75
28.53	Animal, unpleasant 2, foul	2.25	55
31.71	Unpleasant1, burnt	1.8	35
35.3	Chemical, medicinal	1.23	20