

Gas-particle partitioning of polychlorinated dibenzo-*p*-dioxins,
dibenzofurans, and biphenyls in flue gases from municipal solid
waste incinerators

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Table S1 Concentrations of 132 gas-phase PCDD/Fs in sample sets S1–S5 (pg m⁻³)

Number	Isomer	Retention time	S1	S2	S3	S4	S5
1	1,2,3,4,6,7,8-HpCDF	50.75	1213	32.6	116	142	136
2	1,2,3,4,6,7,9-HpCDF	51.24	307	7.5	10.5	30.7	25.1
3	1,2,3,4,6,8,9-HpCDF	51.50	479	13.7	5.9	47.3	51.6
4	1,2,3,4,7,8,9-HpCDF	53.30	320	10.3	19.9	23.6	25.2
5	1,2,3,4,6,7,9-HpCDD	51.28	1657	123	99.4	85.0	109
6	1,2,3,4,6,7,8-HpCDD	52.55	1293	165	127	100	128
7	1,2,3,4,6,8-HxCDF	42.59	290	2.0	67.7	193	111
8	1,3,4,6,7,8-HxCDF/1,2,4,6,7,8-HxCDF	42.96	613	3.7	189	631	381
9	1,3,4,6,7,9-HxCDF	43.39	21.9	-	19.7	46.9	29.0
10	1,2,4,6,7,9-HxCDF	43.74	69.1	-	17.1	57.9	36.7
11	1,2,4,6,8,9-HxCDF	44.15	52.4	0.6	1.0	30.0	15.6
12	1,2,3,4,6,7-HxCDF	44.91	416	5.4	7.6	155	97.3
13	1,2,3,4,7,8-HxCDF	45.14	236	6.7	84.1	157	106
14	1,2,3,6,7,8-HxCDF	45.38	323	8.4	94.8	180	119
15	1,2,3,4,7,9-HxCDF	45.65	47.5	3.6	0.9	25.9	14.9
16	1,2,3,4,6,9-HxCDF	45.90	61.5	2.2	0.7	37.1	19.8
17	1,2,3,6,7,9-HxCDF	46.12	63.1	1.4	1.6	54.8	32.2
18	1,2,3,6,8,9-HxCDF/2,3,4,6,7,8-HxCDF	46.53	440	15.8	64.3	142	113
19	1,2,3,7,8,9-HxCDF/1,2,3,4,8,9-HxCDF	48.12	192	5.6	9.0	38.6	31.1
20	1,2,4,6,7,9-HxCDD/1,2,4,6,8,9-HxCDD	43.84	243	10.0	5.8	33.0	26.0
21	1,2,3,4,6,8-HxCDD	45.03	943	81.4	55.6	315	224
22	1,2,3,6,7,9-HxCDD/1,2,3,6,8,9-HxCDD	45.57	635	34.5	15.4	74.1	56.9
23	1,2,3,4,6,9-HxCDD	45.76	97.7	3.2	2.5	8.1	8.9
24	1,2,3,4,7,8-HxCDD	46.86	96.1	3.8	10.2	13.1	10.5
25	1,2,3,6,7,8-HxCDD	47.05	105	13.0	17.8	18.0	17.8
26	1,2,3,4,6,7-HxCDD	47.36	114	2.4	32.8	12.2	10.7
27	1,2,3,7,8,9-HxCDD	47.54	128	5.3	32.4	13.3	11.3
28	1,3,6,7,8-PeCDF/1,3,4,6,7-PeCDF/1,2,4,6,7-PeCDF	33.00	107	-	94.7	242	1550
29	1,2,3,6,8-PeCDF/1,3,4,7,8-PeCDF/1,2,4,7,8-PeCDF	33.28	97.1	-	119	3588	1826
30	1,4,6,7,8-PeCDF	33.33	71.6	-		607	524
31	1,3,4,7,9-PeCDF	33.60	21.9	-	21.3	107	175

32	1,2,4,7,9-PeCDF/1,3,4,6,9-PeCDF/1,2,3,4,6-PeCDF	34.77	250	4.1	120	1223	367
33	2,3,4,6,8-PeCDF/1,2,4,6,9-PeCDF/1,2,3,4,7-PeCDF	34.98	93.2	0.5	11.6	306	176
34	1,2,3,4,8-PeCDF	35.39	80.6	-	10.2	251	121
35	1,2,3,7,8-PeCDF	35.91	110	4.3	179	903	382
36	1,2,6,7,8-PeCDF/1,2,3,6,7-PeCDF	36.61	202	1.7	120	1347	432
37	1,2,3,7,9-PeCDF	37.02	13.0	0.9	23.0	155	55.3
38	1,2,6,7,9-PeCDF	37.99	19.5	-	13.3	135	47.2
39	2,3,4,6,7-PeCDF/1,2,3,6,9-PeCDF	38.30	351	6.8	1283	784	322
40	2,3,4,7,8-PeCDF/1,2,4,8,9-PeCDF	38.58	194	7.1	344	707	278
41	1,2,3,4,9-PeCDF	39.26	46.7	0.6	5.7	77.2	23.8
42	1,2,3,8,9-PeCDF	40.86	45.9	1.8	111	57.6	24.4
43	1,2,4,6,8-PeCDD/1,2,4,7,9-PeCDD	33.40	180	6.8	46.0	649	155
44	1,2,4,6,9-PeCDD	34.89	25.8	14.0	1.8	57.1	13.1
45	1,2,3,6,8-PeCDD	36.15	160	49.0	42.5	490	105
46	1,2,4,7,8-PeCDD	36.64	25.9	0.8	12.9	125	27.2
47	1,2,3,7,9-PeCDD	36.87	133	8.2	33.2	314	65.9
48	1,2,3,6,9-PeCDD/1,2,4,6,7-PeCDD/1,2,4,8,9-PeCDD	37.50	90.6	13.3	28.3	163	34.1
49	1,2,3,4,7-PeCDD/1,2,3,4,6-PeCDD	38.47	107	16.3	29.6	286	70.2
50	1,2,3,7,8-PeCDD	39.54	51.4	3.8	43.7	78.5	19.5
51	1,2,3,6,7-PeCDD	39.72	43.1	1.5	9.5	59.4	11.1
52	1,2,3,8,9-PeCDD	40.38	40.5	0.7	88.7	41.3	10.5
53	1,3,6,8-TCDD	23.64	5.5	3.7	18.5	718	1896
54	1,3,7,9-TCDD	24.06	38.2	4.3	12.6	2551	1362
55	1,3,6,9-TCDD	24.54	7.5	-	4.9	196	251
56	1,4,6,9-TCDD	25.43	-	-	0.4	27.2	18.0
57	1,2,4,7-TCDD/1,2,4,8-TCDD/1,2,4,6-TCDD/1,2,4,9-TCDD	25.74	15.0	-	15.6	1044	786
58	1,3,7,8-TCDD	25.96	21.6	1.7	14.5	1461	731
59	1,2,6,8-TCDD	26.21	14.2	-	5.9	377	295
60	1,4,7,8-TCDD	26.45	-	-	2.2	115	90.6
61	1,2,7,9-TCDD	26.74	14.1	1.3	7.2	484	240
62	1,2,3,4-TCDD/1,2,6,9-TCDD	27.29	6.5	0.9	4.6	783	328
63	1,2,3,6-TCDD	27.56	3.9		1.6		
64	1,2,3,7-TCDD/1,2,3,8-TCDD	27.74	32.1	2.8	12.9	1061	545
65	1,2,3,9-TCDD	27.97	7.2	0.8	1.3	141	79.8

66	2,3,7,8-TCDD	28.17	3.1	0.2	75.7	227	123
67	1,2,7,8-TCDD	28.65	4.7	1.1	10.3	365	200
68	1,2,6,7-TCDD	28.86	3.5	-	2.9	82.9	57.7
69	1,2,8,9-TCDD	29.77	1.6	-	19.2	93.4	48.3
70	1,3,6,8-TCDF	21.75	-	0.6	92.5	1680	3622
71	1,4,6,8-TCDF	22.26	0.8	0.4	55.7	790	950
72	2,4,6,8-TCDF	22.78	4.4	0.7	41.1	867	2385
73	1,3,4,6-TCDF/1,2,4,6-TCDF /1,3,4,7-TCDF/1,3,7,8-TCDF F/1,2,4,7-TCDF	23.35	19.7	2.5	375	21235	20997
74	1,3,4,8-TCDF/1,2,4,8-TCDF /1,3,6,7-TCDF/1,3,7,9-TCDF F	23.74	3.2	0.8	167	4012	7770
75	1,2,6,8-TCDF	24.11	3.6	1.0	60.0	1452	3942
76	1,4,6,7-TCDF	24.32	1.6		41.5	1108	2517
77	1,4,7,8-TCDF	24.50	0.5		67.5	1905	4656
78	1,3,6,9-TCDF/1,2,3,7-TCDF	25.01	104	6.3	214	14188	8246
79	2,4,6,7-TCDF	25.17	38.1	1.9	97.1	7273	4657
80	2,3,6,8-TCDF/1,2,3,8-TCDF /1,2,3,4-TCDF/1,6,7,8-TCDF F/1,2,3,6-TCDF/1,4,6,9-TCDF	25.35	51.9	3.0	153	7652	8198
81	1,2,7,8-TCDF	25.90	39.8	2.0	139	9515	5443
82	1,3,4,9-TCDF	26.16	11.5	1.5	46.7	2448	2420
83	1,2,6,7-TCDF	26.43	68.3	3.3	83.4	4177	2203
84	1,2,4,9-TCDF/2,3,4,6-TCDF	26.71	73.3	10.5		4834	2766
85	2,3,4,7-TCDF/1,2,7,9-TCDF /2,3,4,8-TCDF	26.76	66.2		147	3219	1940
86	2,3,7,8-TCDF	26.97	27.0	3.8	1085	3597	2111
87	2,3,6,7-TCDF/3,4,6,7-TCDF	27.47	91.3	5.8	2834	10462	5745
88	1,2,6,9-TCDF	27.76	5.4	0.6	-	591	414
89	1,2,3,9-TCDF	28.21	15.9	1.0	-	531	295
90	1,2,8,9-TCDF	30.01	12.1	0.33	71.9	246	139
Total	2,3,7,8-PCDD/Fs + non 2,3,7,8-PCDD/Fs	-	16159	1010	10204	127080	107431