

US EPA ARCHIVE DOCUMENT

Supplementary Table 3. Variation of Analyte Response to Vacuum Spike Equilibration Time

compound	10 min <sup>a</sup>		30 min		60 min		120 min		1000 min		5480 min	
	response <sup>b</sup>	rel dev <sup>c</sup>	response	rel dev								
dichlorodifluoromethane	117%	23%	114%	23%	101%	27%	156%	48%	90%	9%	60%	4%
chloromethane	68%	9%	94%	12%	72%	9%	104%	22%	81%	7%	88%	11%
vinyl chloride	74%	7%	89%	8%	77%	9%	89%	14%	79%	4%	80%	8%
bromomethane	78%	3%	88%	2%	80%	6%	32%	5%	65%	2%	24%	6%
chloroethane	75%	4%	86%	4%	81%	5%	71%	5%	81%	3%	69%	8%
trichlorofluoromethane	87%	1%	92%	1%	92%	3%	77%	6%	88%	2%	82%	7%
diethyl ether- <i>d</i> <sub>10</sub>	82%	7%	84%	2%	84%	0%	64%	6%	69%	5%	51%	20%
ether	76%	11%	77%	8%	77%	7%	63%	13%	56%	10%	68%	33%
acetone- <i>d</i> <sub>6</sub>	106%	15%	95%	4%	100%	5%	10%	1%	105%	22%	3%	1%
1,1-dichloroethene	122%	45%	88%	2%	95%	4%	80%	29%	205%	158%	79%	31%
iodomethane	122%	27%	375%	110%	153%	20%	7%	7%	249%	102%	5%	2%
allyl chloride	86%	63%	129%	73%	111%	63%	78%	51%	127%	45%	150%	70%
methylene chloride- <i>d</i> <sub>6</sub>	74%	23%	93%	6%	88%	6%	76%	33%	114%	31%	164%	34%
methylene chloride	74%	31%	100%	11%	93%	10%	84%	65%	133%	62%	420%	122%
acrylonitrile	105%	6%	95%	6%	86%	6%	11%	4%	40%	4%	4%	1%
<i>trans</i> -1,2-dichloroethene	90%	13%	94%	6%	92%	8%	45%	15%	87%	9%	75%	13%
nitromethane- <i>d</i> <sub>3</sub>	114%	114%	116%	104%	133%	115%	4%	5%	9%	11%	19%	17%
1,1-dichloroethane	143%	61%	94%	9%	88%	10%	27%	15%	77%	5%	117%	66%
hexafluorobenzene	132%	59%	131%	45%	134%	50%	39%	18%	82%	10%	169%	78%
tetrahydrofuran- <i>d</i> <sub>8</sub>	88%	2%	79%	1%	71%	2%	59%	1%	46%	8%	58%	6%
methacrylonitrile	88%	2%	84%	3%	80%	2%	58%	3%	54%	6%	55%	2%
2-butanone	105%	6%	89%	4%	62%	32%	89%	57%	33%	20%	173%	48%
propionitrile	90%	2%	85%	1%	73%	7%	89%	18%	45%	6%	91%	17%
ethyl acetate-2C <sup>13</sup>	88%	2%	84%	2%	77%	4%	51%	12%	52%	5%	47%	32%
2,2-dichloropropane	95%	10%	92%	10%	82%	15%	57%	18%	72%	13%	102%	9%
<i>cis</i> -1,2-dichloroethene	84%	3%	82%	3%	53%	29%	59%	39%	43%	20%	114%	46%
chloroform	83%	2%	78%	2%	79%	1%	55%	4%	69%	2%	68%	7%
pentafluorobenzene	86%	4%	81%	3%	85%	3%	52%	4%	73%	3%	68%	7%
bromochloromethane	84%	2%	78%	2%	79%	1%	50%	3%	64%	2%	63%	7%
1,1,1-trichloroethane	86%	3%	83%	2%	86%	2%	59%	4%	77%	2%	74%	7%

1,1-dichloropropene	87%	2%	84%	2%	88%	2%	53%	4%	80%	4%	76%	7%
carbon tetrachloride	85%	9%	86%	2%	89%	4%	60%	5%	78%	6%	80%	8%
benzene- <i>d</i> <sub>6</sub>	82%	2%	78%	2%	79%	1%	49%	3%	70%	2%	66%	7%
1,2-dichloroethane- <i>d</i> <sub>4</sub>	83%	2%	78%	2%	79%	1%	50%	3%	62%	3%	62%	6%
1,2-dichloroethane	83%	2%	79%	2%	78%	1%	50%	3%	62%	4%	63%	6%
benzene	82%	2%	79%	3%	80%	1%	49%	3%	71%	2%	67%	7%
fluorobenzene	83%	2%	78%	3%	80%	1%	48%	3%	69%	2%	65%	7%
1,4-difluorobenzene	83%	3%	77%	3%	81%	2%	48%	3%	68%	2%	64%	6%
trichloroethene	83%	6%	68%	7%	71%	5%	34%	3%	52%	2%	63%	15%
1,2-dichloropropane- <i>d</i> <sub>6</sub>	79%	2%	76%	3%	77%	1%	49%	3%	64%	2%	61%	6%
1,2-dichloropropane	78%	2%	76%	3%	76%	1%	49%	3%	64%	2%	63%	6%
methyl methacrylate	82%	2%	76%	3%	74%	0%	44%	2%	49%	5%	58%	15%
1,4-dioxane- <i>d</i> <sub>8</sub>	89%	3%	80%	2%	83%	2%	77%	14%	58%	6%	63%	6%
bromodichloromethane	74%	8%	68%	4%	70%	1%	39%	4%	51%	2%	53%	5%
1,4-dioxane	89%	3%	80%	1%	84%	2%	77%	11%	57%	7%	64%	5%
dibromomethane	82%	3%	73%	3%	74%	2%	40%	2%	52%	4%	57%	7%
4-methyl-2-pentanone	86%	2%	76%	2%	77%	1%	52%	2%	48%	7%	56%	5%
<i>trans</i> -1,3-dichloropropene	78%	3%	70%	4%	69%	1%	9%	2%	36%	1%	6%	2%
toluene- <i>d</i> <sub>8</sub>	82%	4%	74%	4%	77%	2%	33%	2%	61%	2%	60%	6%
toluene	81%	2%	80%	5%	81%	0%	33%	2%	64%	3%	61%	7%
pyridine- <i>d</i> <sub>5</sub>	84%	3%	75%	3%	78%	3%	65%	10%	55%	8%	59%	5%
pyridine	83%	4%	75%	4%	76%	4%	58%	11%	53%	8%	59%	6%
<i>cis</i> -1,3-dichloropropene	80%	2%	67%	5%	67%	2%	13%	2%	38%	1%	16%	3%
ethyl methacrylate	80%	2%	72%	4%	71%	1%	36%	2%	47%	4%	32%	19%
<i>n</i> -nitrosodimethylamine	40%	2%	62%	6%	65%	6%	70%	38%	63%	19%	96%	29%
1,1,2-trichloroethane- <i>d</i> <sub>3</sub>	79%	2%	68%	4%	69%	2%	36%	2%	46%	4%	50%	5%
2-hexanone	82%	1%	75%	3%	76%	1%	51%	1%	45%	7%	53%	4%
1,1,2-trichloroethane	79%	3%	68%	4%	68%	1%	36%	2%	45%	4%	52%	5%
tetrachloroethene	89%	11%	62%	8%	73%	9%	25%	3%	44%	3%	55%	11%
1,3-dichloropropane	80%	2%	72%	4%	71%	1%	38%	2%	50%	4%	54%	5%
dibromochloromethane	68%	3%	55%	4%	58%	1%	25%	3%	35%	4%	37%	3%
1,2-dibromoethane- <i>d</i> <sub>4</sub>	79%	3%	68%	4%	68%	2%	28%	2%	44%	4%	48%	5%
2-picoline	70%	8%	72%	4%	75%	6%	62%	9%	56%	6%	80%	6%

1,2-dibromoethane	79%	3%	68%	4%	67%	1%	27%	2%	43%	4%	47%	5%
chlorobenzene- <i>d</i> <sub>5</sub>	75%	6%	62%	5%	64%	3%	24%	2%	42%	2%	47%	5%
chlorobenzene	75%	6%	61%	5%	64%	3%	24%	2%	42%	2%	47%	5%
1,1,1,2-tetrachloroethane	73%	9%	60%	5%	62%	3%	29%	3%	40%	2%	47%	5%
ethylbenzene	80%	6%	70%	5%	74%	4%	23%	2%	51%	3%	55%	6%
<i>n</i> -nitroso-methyl-ethylamine	42%	4%	64%	3%	64%	4%	78%	7%	62%	18%	55%	15%
<i>m,p</i> -xylenes	76%	6%	66%	5%	70%	4%	22%	1%	49%	3%	52%	5%
styrene	71%	5%	57%	5%	59%	3%	18%	2%	34%	2%	35%	4%
<i>o</i> -xylene- <i>d</i> <sub>10</sub>	74%	7%	61%	6%	64%	5%	21%	2%	41%	2%	46%	5%
<i>o</i> -xylene	74%	6%	61%	5%	64%	4%	21%	2%	42%	2%	45%	5%
isopropylbenzene	76%	8%	67%	6%	72%	6%	21%	2%	48%	4%	53%	6%
bromoform	70%	4%	43%	3%	51%	3%	16%	4%	24%	6%	24%	4%
<i>cis</i> -1,4-dichloro-2-butene	106%	24%	29%	8%	41%	11%	0%	0%	4%	2%	0%	0%
<i>n</i> -nitrosodiethylamine	65%	1%	71%	1%	72%	1%	77%	10%	64%	9%	64%	7%
1,1,2,2-tetrachloroethane	52%	11%	46%	3%	44%	4%	25%	4%	27%	9%	28%	8%
4-bromofluorobenzene	69%	8%	50%	5%	52%	5%	18%	1%	28%	2%	34%	4%
1,2,3-trichloropropane	75%	4%	58%	5%	57%	3%	26%	2%	30%	4%	38%	4%
<i>n</i> -propylbenzene	73%	8%	65%	6%	69%	6%	18%	1%	44%	4%	48%	6%
<i>trans</i> -1,4-dichloro-2-butene	93%	14%	31%	7%	44%	10%	0%	0%	9%	2%	0%	0%
1,3,5-trimethylbenzene	67%	8%	55%	6%	59%	6%	17%	1%	33%	3%	40%	5%
bromobenzene- <i>d</i> <sub>5</sub>	68%	8%	50%	5%	52%	4%	18%	2%	27%	2%	35%	3%
bromobenzene	68%	7%	49%	5%	51%	4%	17%	2%	27%	2%	35%	4%
2-chlorotoluene	65%	8%	52%	4%	55%	4%	18%	1%	31%	2%	37%	4%
4-chlorotoluene	67%	8%	50%	7%	53%	6%	17%	1%	29%	2%	36%	5%
pentachloroethane	7%	6%	33%	6%	16%	10%	21%	13%	18%	11%	20%	13%
<i>tert</i> -butylbenzene	70%	8%	63%	6%	66%	6%	20%	1%	40%	4%	48%	6%
1,2,4-trimethylbenzene	66%	8%	54%	6%	57%	6%	17%	1%	31%	2%	38%	4%
<i>sec</i> -butylbenzene	70%	8%	65%	6%	70%	7%	19%	1%	42%	4%	52%	6%
aniline	48%	11%	67%	4%	61%	4%	28%	6%	48%	14%	22%	4%
<i>p</i> -isopropyltoluene	67%	8%	60%	6%	64%	7%	17%	1%	37%	3%	44%	5%
1,3-dichlorobenzene	60%	8%	42%	5%	44%	6%	15%	1%	21%	2%	27%	3%
1,4-dichlorobenzene	60%	8%	41%	5%	43%	5%	15%	1%	20%	2%	26%	3%
<i>n</i> -butylbenzene	65%	9%	59%	6%	62%	8%	17%	1%	34%	3%	43%	5%

1,2-dichlorobenzene- <i>d</i> <sub>4</sub>	56%	8%	36%	5%	39%	5%	15%	2%	16%	2%	22%	3%
1,2-dichlorobenzene	55%	8%	37%	5%	39%	5%	15%	1%	16%	1%	22%	3%
decafluorobiphenyl	63%	8%	66%	6%	67%	9%	17%	2%	29%	5%	24%	2%
<i>n</i> -nitrosodi- <i>n</i> -propylamine	65%	5%	66%	2%	65%	3%	54%	13%	48%	3%	46%	6%
nitrobenzene- <i>d</i> <sub>5</sub>	75%	24%	47%	6%	59%	5%	1%	1%	21%	3%	22%	2%
acetophenone- <i>d</i> <sub>5</sub>	70%	5%	58%	5%	57%	3%	38%	5%	31%	2%	39%	4%
<i>o</i> -toluidine	44%	10%	60%	5%	56%	5%	33%	9%	44%	11%	28%	6%
1,2-dibromo-3-chloropropane	71%	10%	44%	6%	47%	5%	17%	2%	18%	3%	25%	3%
hexachlorobutadiene	48%	6%	49%	5%	48%	7%	17%	3%	21%	3%	26%	5%
1,2,4-trichlorobenzene- <i>d</i> <sub>3</sub>	44%	8%	29%	5%	30%	6%	13%	2%	11%	2%	14%	2%
1,2,4-trichlorobenzene	44%	7%	30%	5%	31%	6%	13%	2%	11%	2%	15%	2%
naphthalene- <i>d</i> <sub>8</sub>	49%	8%	29%	5%	30%	6%	12%	2%	10%	2%	15%	2%
naphthalene	49%	8%	30%	5%	30%	5%	13%	2%	10%	2%	15%	2%
1,2,3-trichlorobenzene	39%	7%	25%	5%	26%	6%	12%	2%	9%	2%	12%	2%
<i>n</i> -nitrosodibutylamine	32%	4%	54%	6%	45%	5%	36%	13%	25%	9%	25%	4%
2-methylnaphthalene	38%	4%	41%	4%	36%	3%	15%	2%	14%	5%	16%	3%
1-methylnaphthalene- <i>d</i> <sub>10</sub>	39%	8%	27%	5%	26%	5%	12%	2%	9%	3%	12%	2%

<sup>a</sup>Period the vacuum spike was allowed to equilibrate prior to analyses after sample brought to room temperature. Samples were 1 g aliquots of tuna and analyte concentrations were 10 times those listed in Table 1.

<sup>b</sup>Response of analyte compared its response from a standard prepared in 1 g tuna and 5 mL water matrix just prior to analysis

<sup>c</sup>The relative deviation (1 sigma) from replicate analyses.