

US EPA ARCHIVE DOCUMENT

Supplementary Table 5. Variation of Analyte Response to Sonication Spike Equilibration Time

compound	40 min <sup>a</sup>		120 min		250 min		1000 min		3840 min	
	response <sup>b</sup>	rel dev <sup>c</sup>	response	rel dev	response	rel dev	response	rel dev	response	rel dev
dichlorodifluoromethane	87%	13%	88%	15%	85%	15%	73%	26%	87%	5%
chloromethane	91%	14%	82%	16%	92%	16%	93%	1%	92%	8%
vinyl chloride	87%	13%	86%	14%	91%	13%	92%	1%	90%	4%
bromomethane	86%	14%	81%	5%	79%	13%	67%	0%	37%	2%
chloroethane	84%	12%	85%	4%	81%	12%	81%	1%	70%	4%
trichlorofluoromethane	89%	10%	92%	5%	88%	10%	88%	2%	83%	2%
diethyl ether- <i>d</i> <sub>10</sub>	95%	10%	81%	6%	90%	14%	69%	13%	67%	2%
ether	88%	6%	82%	10%	84%	6%	67%	11%	74%	4%
acetone- <i>d</i> <sub>6</sub>	135%	20%	34%	6%	128%	18%	168%	30%	13%	1%
1,1-dichloroethene	113%	26%	34%	22%	110%	24%	162%	47%	55%	17%
iodomethane	49%	32%	10%	3%	38%	21%	110%	23%	61%	20%
allyl chloride	57%	33%	50%	18%	84%	58%	63%	6%	72%	5%
methylene chloride- <i>d</i> <sub>6</sub>	58%	27%	73%	14%	67%	33%	69%	0%	100%	45%
methylene chloride	50%	33%	55%	5%	55%	38%	74%	5%	158%	95%
acrylonitrile	116%	22%	29%	11%	117%	9%	78%	27%	46%	14%
<i>trans</i> -1,2-dichloroethene	84%	7%	48%	6%	80%	8%	76%	4%	74%	9%
nitromethane- <i>d</i> <sub>3</sub>	33%	33%	61%	69%	28%	28%	27%	9%	36%	29%
1,1-dichloroethane	47%	22%	30%	3%	45%	21%	77%	3%	65%	8%
hexafluorobenzene	39%	6%	40%	4%	41%	5%	85%	8%	91%	6%
tetrahydrofuran- <i>d</i> <sub>8</sub>	91%	11%	82%	10%	97%	12%	56%	17%	62%	2%
methacrylonitrile	102%	10%	67%	34%	109%	10%	67%	17%	68%	4%
2-butanone	122%	12%	77%	42%	136%	12%	107%	35%	52%	10%
propionitrile	107%	12%	72%	35%	114%	13%	69%	20%	73%	3%
ethyl acetate-2C <sup>13</sup>	107%	9%	64%	34%	111%	9%	68%	18%	70%	5%
2,2-dichloropropane	89%	11%	79%	15%	88%	11%	78%	3%	70%	11%
<i>cis</i> -1,2-dichloroethene	91%	8%	66%	32%	92%	9%	67%	4%	87%	29%
chloroform	91%	9%	70%	18%	94%	9%	65%	4%	65%	3%
pentafluorobenzene	89%	10%	73%	22%	92%	10%	72%	2%	72%	1%
bromochloromethane	93%	10%	86%	9%	95%	10%	64%	7%	63%	3%
1,1,1-trichloroethane	92%	11%	89%	8%	92%	11%	73%	2%	69%	1%

1,1-dichloropropene	95%	9%	92%	8%	95%	9%	73%	1%	73%	1%
carbon tetrachloride	97%	9%	94%	9%	94%	10%	76%	1%	72%	1%
benzene- <i>d</i> <sub>6</sub>	92%	9%	87%	8%	94%	9%	66%	4%	68%	1%
1,2-dichloroethane- <i>d</i> <sub>4</sub>	95%	13%	84%	8%	98%	13%	65%	9%	62%	2%
1,2-dichloroethane	95%	13%	85%	8%	98%	13%	66%	9%	62%	2%
benzene	92%	9%	88%	8%	97%	9%	69%	6%	71%	2%
fluorobenzene	91%	9%	86%	8%	95%	9%	66%	4%	67%	1%
1,4-difluorobenzene	91%	9%	85%	8%	95%	9%	66%	4%	66%	1%
trichloroethene	89%	16%	76%	6%	104%	19%	56%	1%	63%	2%
1,2-dichloropropane- <i>d</i> <sub>6</sub>	94%	11%	85%	8%	95%	11%	62%	6%	63%	2%
1,2-dichloropropane	93%	11%	85%	9%	95%	11%	61%	6%	63%	2%
methyl methacrylate	101%	12%	85%	9%	106%	13%	62%	16%	60%	2%
1,4-dioxane- <i>d</i> <sub>8</sub>	108%	15%	169%	38%	116%	16%	75%	5%	77%	1%
bromodichloromethane	90%	10%	80%	9%	92%	10%	56%	6%	53%	2%
1,4-dioxane	106%	14%	157%	36%	115%	16%	72%	8%	75%	0%
dibromomethane	94%	12%	84%	9%	102%	13%	61%	10%	60%	2%
4-methyl-2-pentanone	103%	13%	87%	10%	112%	14%	66%	19%	67%	3%
<i>trans</i> -1,3-dichloropropene	92%	11%	76%	7%	86%	10%	43%	4%	17%	1%
toluene- <i>d</i> <sub>8</sub>	94%	10%	83%	8%	98%	10%	61%	2%	60%	1%
toluene	97%	10%	90%	9%	106%	11%	66%	10%	62%	2%
pyridine- <i>d</i> <sub>5</sub>	104%	14%	149%	32%	115%	17%	73%	7%	69%	0%
pyridine	105%	15%	143%	32%	116%	19%	71%	10%	67%	0%
<i>cis</i> -1,3-dichloropropene	92%	12%	78%	8%	93%	12%	49%	6%	29%	1%
ethyl methacrylate	99%	13%	85%	9%	108%	14%	61%	13%	58%	3%
<i>n</i> -nitrosodimethylamine	63%	28%	130%	49%	41%	8%	75%	12%	68%	7%
1,1,2-trichloroethane- <i>d</i> <sub>3</sub>	95%	9%	81%	10%	105%	12%	57%	8%	54%	3%
2-hexanone	111%	14%	91%	11%	122%	15%	67%	19%	65%	3%
1,1,2-trichloroethane	93%	11%	80%	8%	100%	11%	56%	8%	57%	1%
tetrachloroethene	95%	14%	71%	6%	99%	16%	52%	6%	56%	1%
1,3-dichloropropane	95%	11%	84%	9%	104%	12%	60%	10%	60%	2%
dibromochloromethane	87%	8%	73%	10%	86%	9%	48%	5%	43%	1%
1,2-dibromoethane- <i>d</i> <sub>4</sub>	93%	12%	80%	9%	101%	13%	57%	8%	55%	1%
2-picoline	99%	15%	150%	27%	103%	14%	73%	3%	80%	8%

1,2-dibromoethane	93%	11%	80%	9%	102%	12%	56%	9%	54%	1%
chlorobenzene- <i>d</i> <sub>5</sub>	90%	9%	73%	9%	90%	9%	49%	1%	49%	1%
chlorobenzene	91%	8%	73%	9%	91%	8%	50%	0%	49%	1%
1,1,1,2-tetrachloroethane	89%	9%	71%	8%	88%	9%	49%	0%	47%	0%
ethylbenzene	96%	6%	82%	9%	93%	6%	57%	3%	55%	1%
<i>n</i> -nitroso-methyl-ethylamine	82%	15%	149%	54%	56%	3%	78%	7%	56%	2%
<i>m,p</i> -xylenes	96%	8%	77%	8%	93%	7%	55%	4%	53%	1%
styrene	90%	8%	68%	9%	84%	7%	43%	3%	38%	1%
<i>o</i> -xylene- <i>d</i> <sub>10</sub>	91%	9%	72%	8%	88%	8%	50%	4%	47%	1%
<i>o</i> -xylene	93%	8%	72%	8%	88%	7%	50%	4%	47%	1%
isopropylbenzene	99%	7%	80%	9%	93%	6%	60%	9%	54%	1%
bromoform	87%	2%	69%	7%	69%	17%	43%	6%	31%	2%
<i>cis</i> -1,4-dichloro-2-butene	86%	12%	45%	4%	54%	7%	14%	1%	0%	0%
<i>n</i> -nitrosodiethylamine	101%	9%	152%	44%	92%	8%	82%	3%	76%	1%
1,1,2,2-tetrachloroethane	85%	9%	74%	31%	58%	24%	44%	4%	29%	3%
4-bromofluorobenzene	84%	7%	62%	8%	80%	7%	41%	5%	38%	1%
1,2,3-trichloropropane	90%	12%	71%	9%	99%	14%	51%	7%	50%	1%
<i>n</i> -propylbenzene	100%	5%	77%	9%	91%	5%	58%	11%	51%	1%
<i>trans</i> -1,4-dichloro-2-butene	88%	10%	61%	6%	67%	9%	25%	4%	3%	0%
1,3,5-trimethylbenzene	93%	4%	68%	10%	78%	4%	50%	14%	40%	1%
bromobenzene- <i>d</i> <sub>5</sub>	84%	7%	61%	8%	81%	7%	40%	4%	39%	1%
bromobenzene	84%	7%	61%	9%	80%	7%	40%	4%	39%	1%
2-chlorotoluene	92%	5%	65%	10%	76%	5%	44%	8%	38%	2%
4-chlorotoluene	86%	6%	60%	8%	78%	5%	43%	11%	37%	0%
pentachloroethane	74%	31%	93%	70%	32%	32%	33%	7%	14%	1%
<i>tert</i> -butylbenzene	96%	4%	76%	11%	85%	5%	60%	16%	50%	1%
1,2,4-trimethylbenzene	91%	5%	66%	10%	77%	4%	49%	14%	39%	1%
<i>sec</i> -butylbenzene	99%	5%	79%	11%	87%	4%	65%	19%	54%	1%
aniline	103%	15%	167%	48%	70%	16%	65%	12%	41%	5%
<i>p</i> -isopropyltoluene	96%	5%	74%	10%	82%	4%	60%	21%	48%	1%
1,3-dichlorobenzene	79%	4%	54%	9%	67%	3%	39%	12%	31%	1%
1,4-dichlorobenzene	77%	4%	53%	9%	66%	3%	37%	11%	31%	1%
<i>n</i> -butylbenzene	95%	5%	73%	11%	77%	4%	62%	24%	47%	1%

1,2-dichlorobenzene- <i>d</i> <sub>4</sub>	72%	4%	47%	9%	61%	3%	33%	10%	27%	1%
1,2-dichlorobenzene	72%	4%	48%	9%	61%	3%	34%	10%	27%	1%
decafluorobiphenyl	90%	5%	68%	10%	61%	5%	51%	24%	32%	0%
<i>n</i> -nitrosodi- <i>n</i> -propylamine	101%	10%	158%	42%	100%	11%	74%	5%	70%	1%
nitrobenzene- <i>d</i> <sub>5</sub>	83%	8%	78%	13%	57%	14%	47%	9%	47%	10%
acetophenone- <i>d</i> <sub>5</sub>	93%	13%	123%	27%	97%	17%	61%	3%	60%	3%
<i>o</i> -toluidine	98%	14%	166%	56%	71%	19%	64%	12%	45%	5%
1,2-dibromo-3-chloropropane	79%	10%	59%	10%	76%	9%	41%	0%	37%	1%
hexachlorobutadiene	85%	6%	70%	9%	49%	4%	60%	37%	48%	0%
1,2,4-trichlorobenzene- <i>d</i> <sub>3</sub>	59%	3%	43%	9%	41%	3%	39%	24%	22%	2%
1,2,4-trichlorobenzene	59%	3%	43%	10%	40%	3%	39%	25%	22%	2%
naphthalene- <i>d</i> <sub>8</sub>	59%	4%	43%	10%	51%	5%	28%	10%	22%	2%
naphthalene	60%	3%	44%	10%	52%	5%	29%	10%	22%	2%
1,2,3-trichlorobenzene	50%	3%	37%	9%	35%	3%	34%	22%	18%	2%
<i>n</i> -nitrosodibutylamine	95%	18%	256%	175%	50%	43%	41%	5%	36%	7%
2-methylnaphthalene	61%	1%	52%	9%	43%	9%	42%	23%	26%	0%
1-methylnaphthalene- <i>d</i> <sub>10</sub>	48%	1%	43%	10%	35%	6%	33%	20%	19%	3%

<sup>a</sup>Period the sonication spike was allowed to equilibrate prior to analyses. 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.