Supporting Information for Publication
Fast, Miniaturized, Real-Time Unit for Sampling, Modulation and Separation in Detection of Hazardous Chemicals

George C. Pallis*[1], George P. Psarras[1], Julia Vamvakari[1], Matti J. Kuula[2], Harri Kiljunen[2], Hanna Hakulinen[2], Paula Vanninen[2]

[1] T4i engineering Ltd, Advanced Technology Innovation Centre, 5 Oakwood Drive, LE11 3QF, Loughborough, United Kingdom

[2] VERIFIN, Finnish Institute for Verification of the Chemical Weapons Convention, Department of Chemistry, University of Helsinki, P.O. Box 55, FI-00014, Finland

Corresponding Author

* George C. Pallis, PhD
E-mail: g.pallis@t4ieng.com
Phone: +44 (0) 208 144 2021

Table of Contents

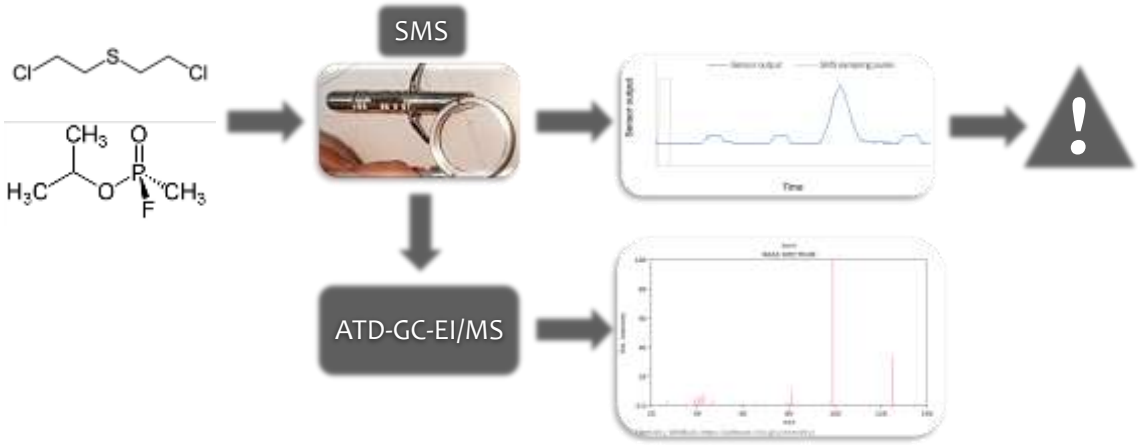

Table S-1. Signal amplitudes and retention times for degradation products of sulphur mustard using SMS fast GC-PID system.

Compound	Concentration (ppb)	GC Temp (°C)	GC Capillary flow rate (mL/min)	Signal amplitude when sampling for 4s			Retention time when sampling for 4s		
				Mean (mV)	Std dev.	RSD%	Mean (s)	Std dev.	RSD%
Oxathiane	2500	50	3	36	0	0%	22	0.3	1%
Divinyl Sulfoxide	2500			12	0.6	5%	42	0.2	0%
Oxathiane	5000	50	3	73	4.5	6%	23	0.3	1%
Divinyl Sulfoxide	5000			24	3.5	15%	44	0.4	1%
Oxathiane	10000	50	3	89	3.2	4%	22	0.4	2%
Divinyl Sulfoxide	10000			30	0	0%	43	0.3	1%
Oxathiane	10000	50	3	192	3.5	2%	22	0.3	1%
Divinyl Sulfoxide	10000			66	3.2	5%	44	0.6	1%
Oxathiane	5000	60	3	108	5.8	5%	17	0.3	2%
Divinyl Sulfoxide	5000			48	1.7	4%	30	0.1	0%
Oxathiane	10000	60	3	192	7.6	4%	17	0.2	1%
Divinyl Sulfoxide	10000			74	4.7	6%	30	0.3	1%
Oxathiane	10000	70	3	102	2.5	2%	13	0.3	2%
Divinyl Sulfoxide	10000			55	4	7%	23	0.2	1%
Oxathiane	5000	90	3	111	1.2	1%	10	0.2	2%
Divinyl Sulfoxide	5000			81	2.1	3%	15	0.2	1%
Oxathiane	5000	90	3	34	40.4	120%	9	0.7	8%
Divinyl Sulfoxide	5000			41	30.7	74%	14	0.4	3%