

Analytical and Bioanalytical Chemistry

Electronic Supplementary Material

A unique arsenic speciation profile in *Elaphomyces* spp. (“deer truffles”) – trimethylarsine oxide and methylarsonous acid as significant arsenic compounds

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Additional files available under [10.1007/s00216-018-0903-3](https://doi.org/10.1007/s00216-018-0903-3).

Table S1 All measured elements with the elected octopole gas modes and m/z ratios

Element Name	octopole gas mode	m/z
Li	nogas	7
B	nogas	11
Na	He	23
Mg	He	24
Al	nogas	27
P	O2	31 -> 47
S	O2	32 -> 48
K	He	39
Ca	He	43
V	He	51
Cr	He	52
Mn	He	55
Fe	He	56
Co	He	59
Ni	He	60
Cu	He	65
Zn	He	66
As	O2	75 -> 91
Se	H2	78
Rb	He	85
Sr	He	88
Mo	nogas	98
Ag	nogas	107
Cd	nogas	111
Sn	nogas	118
Sb	nogas	121
Te	nogas	125
Cs	he	133
Ba	nogas	137
Gd	nogas	157
Hg	nogas	201
Tl	nogas	205
Pb	nogas	208
Bi	nogas	209
U	nogas	238

Table S2 Configuration of ICPQQMS. Differing settings during HPLC-ICPMS in O₂-mode in brackets

	O2	H2	He	nogas
Scan Type	MS/MS	Single Quad	Single Quad	Single Quad
RF Power [W]	1600	1600	1600	1600
RF Matching [V]	1.8	1.8	1.8	1.8
Smpl Depth [mm]	8	8	8	8
Carrier Gas [L/min]	1.1 (0.85)	1.1	1.1	1.1
Option Gas [%]	0 (15)	0	0	0
Nebulizer Pump [rps]	0.1 (0.5)	0.1	0.1	0.1
S/C Temp [°C]	2	2	2	2
Extract 1 [V]	0	0	-1.5	-1.5
Extract 2 [V]	-160	-150	-195	-185
Omega Bias [V]	-90	-80	-110	-95
Omega Lens [V]	6.6	6.6	7.9	7.9
Q1 Entrance [V]	-1	-1	-3	0
Q1 Exit [V]	-1	-1	-1	-1
Cell Focus [V]	2	-4	-3	-6
Cell Entrance [V]	-50	-50	-50	-50
Cell Exit [V]	-60	-60	-60	-60
Deflect [V]	3.2	-60	-6	13
Plate Bias [V]	-60	-60	-60	-60
Q1 Bias [V]	-2	-4	-4	-3
Q1 Prefilter Bias [V]	-44	-36	-48	-40
Q1 Postfilter Bias [V]	-18	-18	-34	-2
He flow [mL/min]	0	0	4	0
H2 flow [mL/min]	0	5.5	0	0
4th cell gas flow [%]	25	0	0	0
OcP Bias [V]	-5	-18	-18	-8
OcP RF [V]	190	200	130	120
Energy discrimination [V]	-7	0	3	5

Table S3 and **Table S4** available under „Supplementary material“

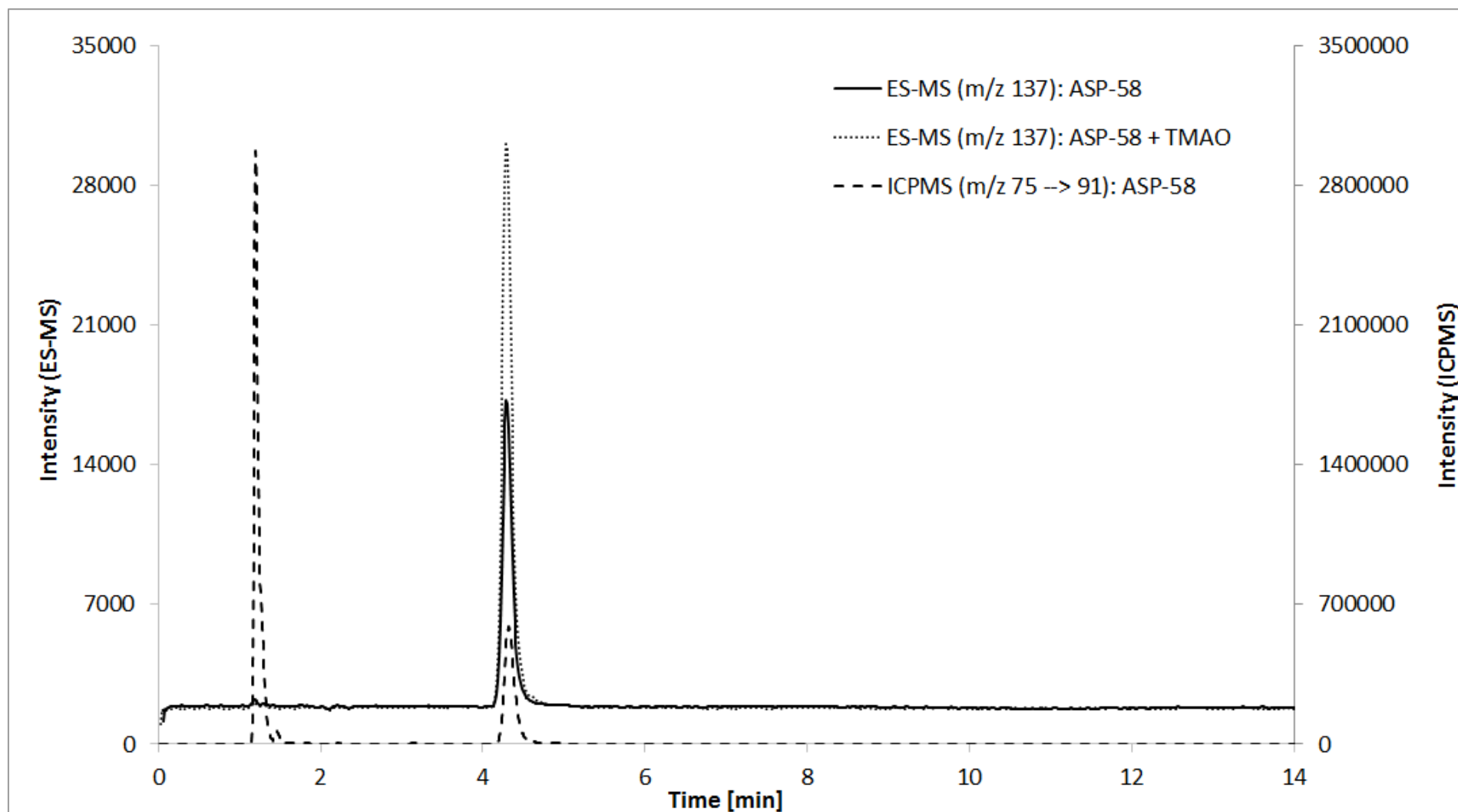


Fig. S1 HPLC-ES-MS chromatograms of m/z 137 ($(\text{CH}_3)_3\text{AsOH}^+$). Solid line = extract of ASP-058, diluted 1+9 with water. Dotted line = same sample as for the solid line, spiked with a pure solution of TMAO ($200 \mu\text{g As L}^{-1}$). Dashed line = same sample and chromatographic method as for the solid line, but with ICPMS (ICPQQMS 8800, oxygen mode, m/z 75 \rightarrow 91) as detector instead of ES-MS