

Supplementary material S3. PAHs. Analytical methods: extraction solvent, instrument, extraction duration, detection instrument, accuracy recovery and precision, detection limits. DCM: dichloromethane; Hex: n-hexane; MetCl: methylene chloride; CicloHex: cyclohexane; ASE: Accelerated Solvent Extraction; SFE: Supercritical Fluid Extraction; SOX: Soxhlet; Ubath: ultrasonic bath; nr: not reported; HPLC: High Performance Liquid Chromatography; FLUO: fluorescence detector; UV: UltraViolet detector; LOD: Limit of Detection. *MDL: Method Detection Limit, **MQL: Method Quantification Limit.

Extraction Solvent	Instrument	Duration hr	Detection instrument	Accuracy Recovery %	Precision %	LOD $\mu\text{g kg}^{-1}$	Reference
DCM	ASE		GC-MS, SIM	71.45-86.65			Mandic et al. , 2017
Hex/Acetone (1:1)	SOX	16	HPLC-FLUO				Caricchia et al., 1993
DCM/CH ₃ OH (2:1)	SOX	24	GC-MS	>80			Hatzianestis et al., 2006
CH ₃ OH/MetCl	SOX	20	GC-MS, SIM	60.28-100			Gogou et al., 2000
MetCl	ASE-SFE		GC-MS, SIM	77-97	7-19	0.06-3.45	Notar et al., 2001
Acetone/Hex (1:1)	SOX	3	GC-MS, SIM	77-91	5-15	0.6-9	Cardellicchio et al., 2007
DCM/CH ₃ OH (2:1)			HPLC-FLUO-UV	79-108		0.05-0.1	Bihari et al., 2006
DCM/CH ₃ OH (2:1)	SOX	16	GC-MS	62-95	1.7-6.3	0.03-0.1	Botsou et al., 2012
DCM/CH ₃ OH (2:1)	SOX	12	GC-FID, GC-MS	90	5	0.1-0.5	Zaghden et al., 2007
Hex/DCM(80:20)	Ubath, SOX	8+8	GC-MS, SIM	90.1-107.1		0.01-0.08	Nemr et al., 2007
DCM	ASE		GC-MS	60-93	<11		Azoury et al., 2013
Acetone/Hex (2:3)	Ubath	0.33	GC-MS, SIM	72-86			Mandalakis et al., 2014
MetCl-CO ₂	ASE-SFE	0.5	GC-MS, SIM	77-97		0.06-3.54*	Heath et al., 2006
Hex/Acetone (1:1)	ASE		GC-MS(EPA8270D)				Asterhan et al. 2017
DCM	ASE	3x5min	GC-MS			0.01-1.8 **	Combi et al., 2019
nr	ASE		GC-MS				Merhaby et al., 2015
Hex	SOX	24	GC-MS, SIM	70±29		0.1	Tsapakis et al., 2010
CicloHex/CH ₃ OH			HPLC-FLUO				Mali et al. 2017