

**DETERMINATION OF ATMOSPHERIC PARTICULATE-PHASE
POLYCYCLIC AROMATIC HYDROCARBONS FROM LOW VOLUME AIR
SAMPLES**

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Supplemental Material

Table S1. Optimization of extraction method

Extraction Conditions	1	2	3	4	5	6	7	8	9	10	11	12
Extraction Concentration	ASE Turbovap	ASE Turbovap	ASE Turbovap	ASE Turbovap	ASE Turbovap	ASE Turbovap	ASE Turbovap	ASE Turbovap	ASE Turbovap	ASE Turbovap	ASE Turbovap	Shaker
Purification agent	Florisil inactivated	Florisil inactivated	Florisil inactivated	Florisil inactivated	Florisil inactivated	Florisil inactivated	Florisil inactivated	Florisil inactivated	Florisil inactivated	Florisil inactivated	Silica gel activated	N ₂ Blown
Purification solvent	10 mL DCM	20 mL DCM	40 mL DCM	15 mL Hex	15 mL Hex 15 mL H/T	15 mL Hex 20 mL DCM	30 mL Hex 20 mL DCM	15 mL Hex 15 mL H/DCM 100 mL DCM	30 mL Hex 30 mL DCM 120 mL DCM	30 mL Hex 60 mL H/DCM 150 mL DCM	15 mL Hex 15 mL H/T 100 mL DCM	8 mL DCM
Internal Standard Recoveries												
Acenaphthylene-d8	56	53	67	56	72	3	65	45	13	37	40	79
Phenanthrene-d10	55	52	65	56	71	20	66	45	14	44	53	85
Anthracene-d10	60	54	64	54	72	23	66	46	14	44	50	86
Pyrene-d10	61	59	66	56	71	53	70	55	22	55	60	92
Benzo(a)anthracene-d12	76	78	80	57	79	84	79	85	37	74	81	98
Chrysene-d12	72	74	81	52	73	84	72	82	34	70	79	100
Benzo(a)pyrene-d12	75	72	73	34	75	83	79	72	31	78	71	100
Indeno(1,2,3-CD)pyrene-d12	87	75	75	22	72	89	88	71	32	86	89	102
Benzo(ghi)perylene-d12	82	73	73	24	71	88	83	70	30	86	94	100
Natural Standard Recoveries												
Acenaphthylene	54	48	65	52	70	3	65	41	11	37	38	83
Acenaphthene	57	53	69	58	73	3	65	44	10	42	41	89
Fluorene	57	52	65	58	74	9	69	46	13	43	53	94
Phenanthrene	55	52	64	55	73	21	69	45	15	48	55	93
Anthracene	59	56	70	56	71	22	70	46	14	43	48	94
Fluoranthene	63	63	72	60	74	52	73	58	24	57	64	112
Pyrene	62	63	70	60	72	53	70	58	23	55	58	100
Benzo(a)anthracene	73	75	77	56	77	82	77	82	34	70	76	109
Chrysene	73	75	77	54	76	83	76	83	32	72	80	111
Benzo(b)fluoranthene	83	83	83	43	79	93	83	87	37	84	91	137
Benzo(k)fluoranthene	78	75	76	39	73	85	77	78	33	79	78	124
Benzo(a)pyrene	75	77	78	37	74	83	79	77	32	77	70	114
Indeno(1,2,3-CD)pyrene	87	85	84	24	75	93	94	81	34	89	91	119
Dibenz(ah)anthracene	92	86	87	21	79	97	95	85	39	97	90	149
Benzo(ghi)perylene	84	84	83	27	73	90	85	80	33	88	95	117
Coronene	90	77	85	12	66	95	91	68	33	32	87	163
Average Internal & Natural Standard Recoveries	69	67	73	45	73	57	76	64	25	63	68	106

ASE= Accelerated Solvent Extraction ; DCM= Dichloromethane; Hex= Hexane; H= Hexane; T=Toluene;