

Polyaromatické a chlorované uhlovodíky

4.1.

IAEA 406 - pouze RM			
Fish Homogenate			
35g			
	ng/g		ng/g
Total Aliphatics	(33000)	PCB 18	(0,38)
Resolved Aliphatics	(24000)	PCB 28	0,57
n-C 17	(91)	PCB 31	0,29
Pristane	(3500)	PCB 44	(0,46)
Phytane	(200)	PCB 45	(0,18)
Σ Alkanes (C 14-C 34)	(4500)	PCB 49	(0,41)
Total Aromatics	(26000)	PCB 52	1,3
Resolved Aromatics	(35000)	PCB 66	(0,67)
Phenanthrene	(22)	PCB 87	(0,82)
1-Methylphenanthrene	(12)	PCB 95	(1,1)
2-Methylphenanthrene	(4,7)	PCB 99	(0,91)
Anthracene	(19)	PCB 101	3,1
Chrysene	(2,3)	PCB 105	(0,71)
Fluoranthene	(4,9)	PCB 110	1,4
Pyrene	4,5	PCB 118	(2,5)
Benzo(b)fluoranthene	(2,3)	PCB 128	(0,8)
Benzo(k)fluoranthene	(2,8)	PCB 138	4,0
Benzo(a)anthracene	(0,81)	PCB 141	(0,41)
Benzo(a)pyrene	(2,9)	PCB 149	2,0
Benzo(ghi)perylene	(0,78)	PCB 151	(0,67)
UVF-ROPME Oil	(8400)	PCB 153	3,7
n-C 18	(240)	PCB 156	0,27
Acenaphthene	(1100)	PCB 170	0,54
Acenaphthylene	(8,0)	PCB 174	(0,30)
Napthalene	(24)	PCB 177	(0,18)
HCB	1,5	PCB 180	1,2
Lindane	(0,27)	PCB 183	(0,32)
α-HCH	(0,79)	PCB 187	(1,1)
β-HCH	(0,75)	PCB 194	(0,13)
pp'-DDE	9,2	PCB 195	(0,04)
pp'-DDD	2,8	PCB 198	(0,068)
pp'-DDT	(3,0)	PCB 199	(0,16)
op DDE	0,76	PCB 200	(0,10)
op DDD	(0,88)	PCB 201	(0,12)
op DDT	(2,9)	PCB 206	(0,05)
Dieldrin	(3,5)	PCB 209	(0,07)
Heptachlor Epoxide	(0,99)		
Heptachlor	0,32		
Aldrin	0,75		
Endrin	(1,9)		
α-Endosulfan	(3,5)		
β-Endosulfan	(1,4)		
Endosulfan Sulphate	(3,6)		
α-Chlordane	2,8		
γ-Chlordane	(0,70)		
Arocolor 1254	(33)		
Arocolor 1260	(13)		
Cis Nonachlor	(0,86)		
Trans Nonachlor	(4,1)		

IAEA 417 - pouze RM					
Sediment					
40g					
	ng/g		ng/g		ng/g
Total Aliphatics	(230000)	HCB	(1,2)	PCB 8	(1,8)
Resolved Aliphatics	(14000)	Lindane	0,54	PCB 18	(3,7)
Unresolved Aliphatic	(230000)	α-HCH	(0,28)	PCB 22	(1,0)
n-C 17	200	β-HCH	(2,8)	PCB 28	5,7
Pristane	(420)	pp'-DDE	14	PCB 31	4,1
Phytane	(370)	pp'-DDD	21	PCB 40	(0,98)
Σ Alkanes (C 14-C 34)	(9500)	pp'-DDT	(19)	PCB 44	9,7
Total Aromatics	(130000)	op'-DDD	(11)	PCB 45	(0,46)
Resolved Aromatics	(48000)	op'-DDT	(2,5)	PCB 49	7,8
Unresolved Aromatics	(220000)	Dieldrin	(2,3)	PCB 52	17
Phenanthrene	3900	Heptachlor Epoxide	(4,8)	PCB 66	(23)
Biphenyl	(42)	Heptachlor	(2)	PCB 70	(20)
1-Methylphenanthrene	320	Aldrin	(1,6)	PCB 74	5,1
2-Methylphenanthrene	(580)	Endrin	(7,1)	PCB 87	19
Anthracene	630	α-Endosulfan	(14)	PCB 91	(3,6)
Chrysene	3600	β-Endosulfan	(5,1)	PCB 95	(20)
Fluorene	230	Endosulfan Sulphate	(8,4)	PCB 97	(9,1)
Fluoranthene	7700	α-Chlordane	(1,8)	PCB 99	19
Pyrene	6000	γ-Chlordane	(1,2)	PCB 101	42
Benzo(b)fluoranthene	4100	Arocolor 1254	(410)	PCB 105	22
Benzo(k)fluoranthene	2000	Arocolor 1260	(170)	PCB 110	42
Benzo(a)anthracene	3200	Cis Nonachlor	(1,7)	PCB 114	(25)
Perylene	1200	Trans Nonachlor	0,32	PCB 118	(43)
Benzo(e)pyrene	3000			PCB 128	12
Benzo(a)pyrene	2800			PCB 138	45
Benzo(ghi)perylene	2300			PCB 141	(5,2)
Indeno(123cd)pyrene	2700			PCB 149	25
1-Phenylnaphtalene	(53)			PCB 151	(3,9)
2-Phenylnaphtalene	(81)			PCB 153	(39)
Dibenz(ah)Anthracene	(1100)			PCB 156	5,9
UVF-Chrysene	(110000)			PCB 158	(6,0)
UVF-ROPME Oil	(820000)			PCB 170	8,1
n-C 18	(230)			PCB 174	3,1
Acenaphthene	180			PCB 177	1,8
Acenaphthylene	42			PCB 180	(16)
Dibenzothiophene	280			PCB 183	3,4
Napthalene	(150)			PCB 185	(1,6)
				PCB 187	8,1
				PCB 189	(0,41)
				PCB 194	2,7
				PCB 195	1,2
				PCB 199	(1,2)
				PCB 200	(7,8)
				PCB 201	(3,8)
				PCB 206	1,8
				PCB 209	1,2

IAEA-140/OC Seaweed (Fucus sp.) Homogenate 35g			
	ng/g		ng/g
Total Aliphatics	27000	HCB	(1,3)
Resolved Aliphatics	(13000)	Lindane	(11)
Unresolved Aliphatics	(26000)	α -HCH	(1,4)
n-C 17	890	β -HCH	4,6
Pristane	50	pp'-DDE	1,2
Phytane	56	pp'-DDD	0,72
Σ Alkanes (C 14-C 34)	11000	pp'-DDT	2,2
Total Aromatics	(5800)	Dieldrin	1,7
Resolved Aromatics	(350)	PCB 18	(1,5)
Unresolved Aromatics	(8100)	PCB 28	1,7
Phenanthrene	76	PCB 31	1,8
1-Methylphenanthrene	11	PCB 44	(2)
2-Methylphenanthrene	19	PCB 49	1,6
Anthracene	14	PCB 52	3,8
Chrysene	40	PCB 66	(0,89)
Fluoranthene	88	PCB 70	(1,8)
Pyrene	67	PCB 77	(0,19)
Benzo(b)fluoranthene	(37)	PCB 87	2,4
Benzo(k)fluoranthene	19	PCB 99	(0,9)
Benzo(a)anthracene	25	PCB 101	2,4
Perylene	(5)	PCB 105	0,49
Benzo(e)pyrene	26	PCB 118	1
Benzo(a)pyrene	20	PCB 138	1,7
Benzo(ghi)perylene	20	PCB 149	1,2
Indeno(1,2,3-cd)pyrene	33	PCB 153	1,7
UVF-Chrysene	(3500)	PCB 156	0,17
UVF-ROPME Oil	(29000)	PCB 170	(0,21)
n-C 18	99	PCB 180	0,43
Fluorene	(6,5)	PCB 187	(0,38)
1-Methylnaphthalene	(13)	Heptachlor Epoxid	(0,79)
2-Methylnaphthalene	(16)	Heptachlor	(3)
Acenaphthene	(3,4)	Aldrin	(0,76)
Dibenz(ah)anthracene	(4,5)	Endrin	(0,71)
Napthalene	17	α -Endosulfan	(0,9)
		α -Chlordane	(1,4)
		Arocolor 1254	(25)
		Arocolor 1260	(12)

IAEA 406 Fish Homogenate 35g					
	ng/g		ng/g		ng/g
Total Aliphatics	(33000)	HCB	1,5	PCB 18	(0,38)
Resolved Aliphatics	(24000)	Lindane	(0,27)	PCB 28	0,57
n-C 17	(91)	α -HCH	(0,79)	PCB 31	0,29
Pristane	(3500)	β -HCH	(0,75)	PCB 44	(0,46)
Phytane	(200)	pp'-DDE	9,2	PCB 45	(0,18)
Σ Alkanes (C 14-C 34)	(4500)	pp'-DDD	2,8	PCB 49	(0,41)
Total Aromatics	(26000)	pp'-DDT	(3,0)	PCB 52	1,3
Resolved Aromatics	(35000)	op DDE	0,76	PCB 66	(0,67)
Phenanthrene	(22)	op DDD	(0,88)	PCB 87	(0,82)
1-Methylphenanthrene	(12)	op DDT	(2,9)	PCB 95	(1,1)
2-Methylphenanthrene	(4,7)	Dieldrin	(3,5)	PCB 99	(0,91)
Anthracene	(19)	Heptachlor Epoxide	(0,99)	PCB 101	3,1
Chrysene	(2,3)	Heptachlor	0,32	PCB 105	(0,71)
Fluoranthene	(4,9)	Aldrin	0,75	PCB 110	1,4
Pyrene	4,5	Endrin	(1,9)	PCB 118	(2,5)
Benzo(b)fluoranthene	(2,3)	α -Endosulfan	(3,5)	PCB 128	(0,8)
Benzo(k)fluoranthene	(2,8)	β -Endosulfan	(1,4)	PCB 138	4,0
Benzo(a)anthracene	(0,81)	Endosulfan Sulphate	(3,6)	PCB 141	(0,41)
Benzo(a)pyrene	(2,9)	α -Chlordane	2,8	PCB 149	2,0
Benzo(ghi)perylene	(0,78)	γ -Chlordane	(0,70)	PCB 151	(0,67)
UVF-ROPME Oil	(8400)	Arocolor 1254	(33)	PCB 153	3,7
n-C 18	(240)	Arocolor 1260	(13)	PCB 156	0,27
Acenaphthene	(1100)	Cis Nonachlor	(0,86)	PCB 170	0,54
Acenaphthylene	(8,0)	Trans Nonachlor	((4,1)	PCB 174	(0,30)
Napthalene	(24)			PCB 177	(0,18)
				PCB 180	1,2
				PCB 183	(0,32)
				PCB 187	(1,1)
				PCB 194	(0,13)
				PCB 195	(0,04)
				PCB 198	(0,068)
				PCB 199	(0,16)
				PCB 200	(0,10)
				PCB 201	(0,12)
				PCB 206	(0,05)
				PCB 209	(0,07)

IAEA-432 - pouze RM					
Mussel Humogenate					
45g					
	ng/g		ng/g		ng/g
Total Aliphatics	(10000)	HCb	0,2	PCB 8	(0,57)
Resolved Aliphatics	(18000)	Lindane	(0,58)	PCB 18	(1,6)
Unresolved Aliphatics	(38000)	α-HCH	(0,23)	PCB 28	(0,32)
n-C 17	(200)	β-HCH	(0,22)	PCB 31	(1,0)
Pristane	(140)	pp'-DDE	2,1	PCB 44	(0,7)
Phytane	(41)	pp'-DDD	0,88	PCB 49	0,29
Σ Alkanes (C 14-C 34)	(4500)	pp'-DDT	(0,67)	PCB 52	(1,2)
Total Aromatics	(3000)	op DDE	(0,62)	PCB 66	(0,38)
Resolved Aromatics	(1500)	op DDD	(1,8)	PCB 70	0,64
Phenanthrene	27	op DDT	(1,8)	PCB 74	(0,13)
1-Methylphenanthrene	4,2	Heptachlor Epoxide	(11)	PCB 82	(0,11)
2-Methylphenanthrene	9,4	Heptachlor	(1,0)	PCB 87	(0,27)
Anthracene	1,5	Aldrin	(1,5)	PCB 95	(1,1)
Chrysene	5,5	Diendrin	(1,3)	PCB 97	(0,31)
Fluoranthene	12	Endrin	(5,4)	PCB 99	(2,1)
Pyrene	13	α-Endosulfan	(4,0)	PCB 101	1,2
Benzo(b)fluoranthene	4,8	β-Endosulfan	(1,8)	PCB 105	(0,5)
Benzo(k)fluoranthene	1,9	Endosulfan Sulphate	(1,8)	PCB 110	1,12
Benzo(a)anthracene	3,8	α-Chlordane	(0,25)	PCB 118	1,09
Benzo(e)pyrene	4,5	γ-Chlordane	(0,49)	PCB 128	(0,25)
Benzo(a)pyrene	0,9	Cis Nonachlor	(0,2)	PCB 138	2,2
UVF-ROPME Oil	(11000)	Trans Nonachlor	(0,53)	PCB 141	(0,19)
n-C 18	(67)	Arocolor 1254	(27)	PCB 146	(0,59)
Fluorene	4,1	Arocolor 1260	(16)	PCB 149	1,4
1-Methylnaphthalene	(8,8)			PCB 151	(0,4)
2-Methylnaphthalene	(14)			PCB 153	2,8
Napthalene	(15)			PCB 156	(0,35)
Perylene	(5,0)			PCB 158	(0,17)
				PCB 167	(0,32)
				PCB 170	(0,57)
				PCB 174	(0,26)
				PCB 177	(0,26)
				PCB 180	0,2
				PCB 183	(0,24)
				PCB 187	(0,87)
				PCB 189	(0,12)
				PCB 194	(0,27)
				PCB 195	(0,22)

NIST 2585 - CRM			
House Dust			
10g			
	μg/kg		μg/kg
Naphtalene	266	PCB 18	12,8
Dibenzothiophene	109	PCB 28	13,4
Phenanthrene	1920	PCB 31	14,0
Anthracene	96,0	PCB 44	18,1
4H-cyclopental[def]phenanthrene	117	PCB 52	21,8
1-Methylphenanthrene	197	PCB 56	4,42
2-Methylphenanthrene	352	PCB 70	13,1
3-Methylphenanthrene	293	PCB 74	5,22
9-Methylphenanthrene	205	PCB 87	16,6
Fluoranthene	4380	PCB 92	5,48
Pyrene	3290	PCB 95	22,7
Chrysene	2260	PCB 99	11,6
Triphenylene	589	PCB 101	29,8
Benzo[b]fluoranthene	2700	PCB 105	13,2
Benzo[j]fluoranthene	1320	PCB 107	4,14
Benzo[k]fluoranthene	1330	PCB 110	28,1
Benzo[a]fluoranthene	74,5	PCB 118	26,3
Benzo[ghi]fluoranthene	317	PCB 138	27,6
Benzo[c]phenanthrene	288	PCB 146	4,89
Benzo[e]pyrene	2160	PCB 149	24,4
Benzo[a]pyrene	1140	PCB 151	6,92
Perylene	387	PCB 153	40,2
Indeno[1,2,3-cd]pyrene	2080	PCB 158	4,50
Benzo[ghi]perylene	2280	PCB 163	7,2
Benzo[a]anthracene	1160	PCB 170	8,8
Dibenz[a,j]anthracene	267	PCB 174	8,83
Dibenz[a,c]anthracene	183	PCB 180	18,4
Dibenz[a,h]anthracene	301	PCB 183	5,27
Benzo[b]chrysene	182	PCB 187	11,3
Picene	413	PCB 206	3,81
Coronene	603	4,4'-DDE	261
Dibenzo[b,k]fluoranthene	596	4,4'-DDD	27,3
Dibenzo[a,e]pyrene	477	2,4'-DDT	44,5
PBDE 17	11,5	4,4'-DDT	111
PBDE 28	46,9		
PBDE 47	497		
PBDE 49	53,5		
PBDE 85	43,8		
PBDE 99	892		
PBDE 100	145		
PBDE 138	15,2		
PBDE 153	119		
PBDE 154	83,5		
PBDE 155	3,94		
PBDE 183	43,0		
PBDE 203	36,7		
PBDE 206	271		
PBDE 209	2510		