Supplementary Material (ESI) for Journal of Environmental Monitoring

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Tenax extraction as predictor for free available content of polycyclic aromatic hydrocarbons (PAHs) in composted sewage sludges

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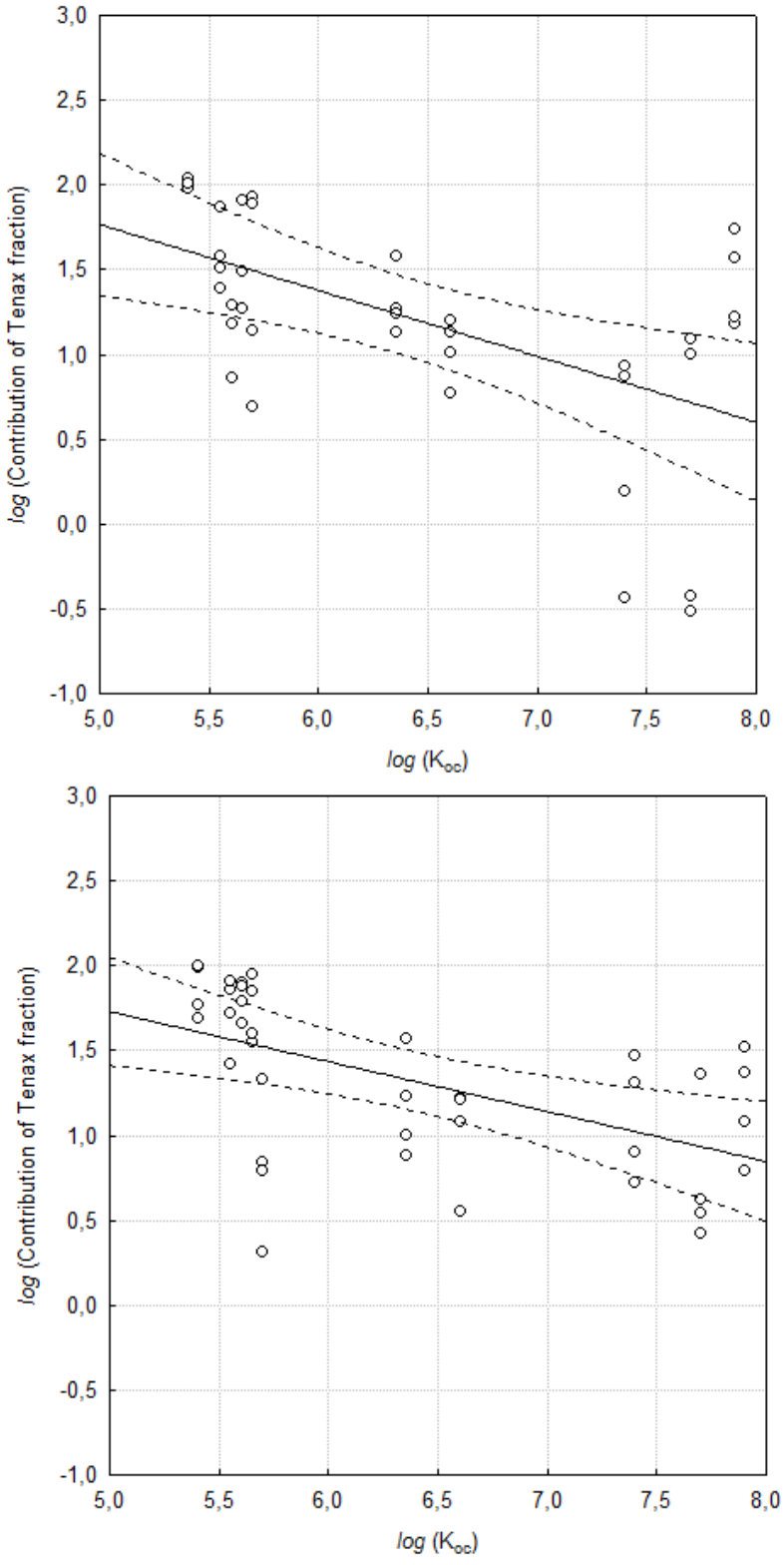

Fig. S1. Linear regression between log (K_{oc}) and log (contribution of Tenax fraction). Dotted lines represent 95% confidence intervals.

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Table S1. The content of individual PAHs in fraction extracted with dichloromethane (DCM) and Tenax-TA (TX)

PAHs	KR				ZM			
	SL		C		SL		C	
	DCM	TX	DCM	TX	DCM	TX	DCM	TX
Phen	169.0±11	183.3±9.0	206.8±7	101.4±5.9	107.0±9	117.5±7.8	74.5±4.7	72.6±5.7
Ant	582.3±31	432.7±30	931.5±28	246.2±10.8	51.9±5	16.8±1.0	35.7±2.6	26.0±1.4
Fluo	862.2±37	269.1±13	534.0±14	193.4±12.7	400.3±28	324.0±21.6	353.7±25	320.7±22.4
Pyr	4834.7±186	4102.2±364	3171.2±202	66.2±3.4	687.6±62	96.0±7.8	442.3±22	95.7±5.8
BaA	504.2±22	99.7±7.1	352.1±12	161.7±5.9	355.5±21	54.5±2.7	108.7±7.2	87.9±4.3
Ch	282.9±15	53.0±3.8	287.6±8	29.2±1.9	157.3±14	60.7±3.5	86.9±8.5	32.8±2.6
BbF	434.4±38	59.0±2.1	512.1±20	18.4±1.1	245.3±28	25.6±1.1	115.6±8.1	19.4±1.0
BaP	1272.5±28	109.0±5.8	382.8±13	30.5±1.3	466.0±42	1.7±0.1	132.4±11	27.6±1.9
BghiP	719.9±17	73.7±4.2	267.8±10	7.1±0.5	341.3±27	1.3±0.1	101.4±7.4	3.6±0.2
Ind	283.0±16	42.8±3.0	201.2±8	24.2±1.4	346.1±24	191.4±11.0	98.4±9.2	23.3±1.8

KR – sewage sludge from Krasnik, ZM – sewage sludge from Zamość; SL – sewage sludge; C – compost; Phen – phenantherene; Ant – anthracene; Fluo – fluoranthene; Pyr – pyrene, BaA – benzo[a]anthracene; Ch – chryzene; BbF – benzo[b]fluoranthene; BaP – benzo[a]pyrene, BghiP – benzo[ghi]perylene; Ind – indeno[1,2,3-cd]pyrene; ± - standard deviation (n=3).

Table S2. The content of individual PAHs in fraction extracted with dichloromethane (DCM) and Tenax (TX)

PAHs	BJ				LB			
	SL		C		SL		C	
	DCM	TX	DCM	TX	DCM	TX	DCM	TX
Phen	226.8±14	220.2±15.9	162.2±6	161.5±13.2	173.4±11	178.9±15.0	118.6±7	69.8±6.1
Ant	119.1±3	46.2±3.2	80.6±4	66.5±4.8	72.2±5	18.1±1.3	61.3±3	32.2±3.1
Fluo	1163.5±48	952.8±51.5	631.8±30	253.5±17.4	572.0±31	107.7±8.2	479.5±31	344.8±24.8
Pyr	1125.9±43	55.4±3.4	680.1±21	48.2±4.4	852.1±38	670.0±35.5	405.5±30	25.3±2.1
BaA	628.2±33	96.7±5.7	383.7±20	289.9±19.8	337.2±22	24.7±1.7	142.9±8	89.4±7.8
Ch	260.9±11	35.9±3.0	259.7±11	19.8±1.8	148.2±11	26.3±1.2	84.6±4	14.4±0.9
BbF	368.5±13	59.2±2.8	188.6±7	23.1±1.7	253.3±14	15.2±1.1	91.7±3	15.2±1.5
BaP	549.1±27	8.6±0.5	212.2±10	11.4±0.9	236.6±11	17.8±0.9	110.5±3	33.2±2.7
BghiP	354.2±14	1.1±0.1	121.9±4	28.1±1.9	119.4±4	14.8±0.7	136.3±7	5.7±0.3
Ind	166.3±10	61.8±2.7	140.4±5	8.7±0.8	64.1±4	10.8±0.7	68.7±5	22.9±1.9

BJ – sewage sludge from Bilgoraj, LB – sewage sludge from Lublin; SL – sewage sludge; C – compost; Phen – phenantherene; Ant – anthracene; Fluo – fluoranthene; Pyr – pyrene, BaA – benzo[a]anthracene; Ch – chryzene; BbF – benzo[b]fluoranthene; BaP – benzo[a]pyrene, BghiP – benzo[ghi]perylene; Ind – indeno[1,2,3-cd]pyrene; ± - standard deviation (n=3).