Supplementary Information (SI) for Environmental Science: Nano.

Zero-Dimensional Graphene-Core Carbon Nanodots Confined in Mesoporous Silica for π-Selective Extraction of Polycyclic Aromatic Hydrocarbons from Lipophilic Media

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Supplementary materials

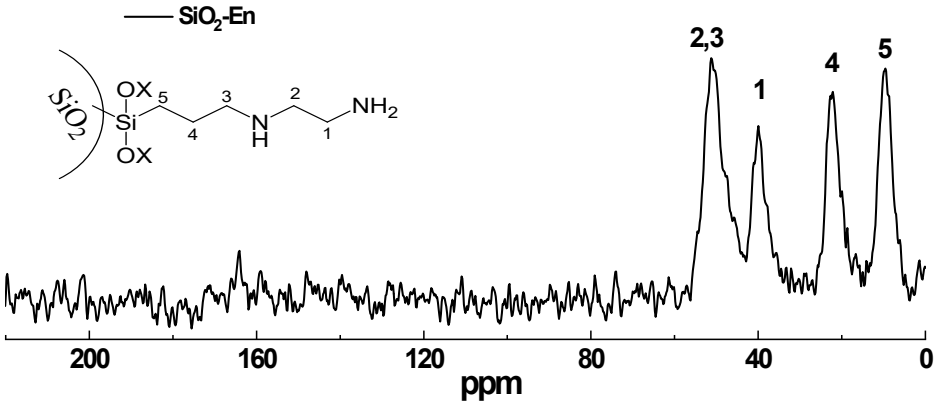

Figure S1. ^{13}C solid-state NMR spectra of SiO_2-En

Table S1. Processing of data relating to the validation of the SPE cycle method

No.	Analyte	Calibration equations	Correlation coefficient (R^2)	Linear range, ng mL^{-1}	LOD, ng mL^{-1}	LOQ, ng mL^{-1}
1	Nap	Y=0,0104x+0,0098	0,9999	0,5-100	0,54	1,64
2	Acy	Y=0,0157x-0,0036	0,9992	0,5-100	1,59	4,82
3	Ace	Y=0,0108x-0,0019	0,9999	0,5-100	0,55	1,67
4	Flu	Y=0,0125x+0,0004	0,9995	0,5-100	1,19	3,60
5	Phe	Y=0,0109x-0,0033	0,9995	0,5-100	1,33	4,02
6	Ant	Y=0,0089x-0,0101	0,9979	0,5-100	2,43	7,36
7	Flt	Y=0,0106x-0,0048	0,9987	0,5-100	1,91	5,79
8	Pyr	Y=0,0125x+0,0106	0,9996	0,5-100	1,08	3,26
9	BaA	Y=0,0086x+0,0089	0,9998	0,5-100	0,88	2,67
10	Chr	Y=0,012x+0,0064	0,9993	0,5-100	1,46	4,41
11	BbF	Y=0,0106x-0,0075	0,9990	0,5-100	1,66	5,02
12	BaP	Y=0,0108x-0,0114	0,9983	0,5-100	2,18	6,60
13	BghiP	Y=0,0132x-0,0149	0,9980	0,5-100	2,37	7,19
14	BkF	Y=0,0144x-0,0167	0,9988	0,5-100	1,83	5,55
15	Ipy	Y=0,0079x-0,0062	0,9984	0,5-100	2,17	6,57
16	DBahA	Y=0,0089x-0,0056	0,9996	0,5-100	1,11	3,37
17	Per	Y=0,0132x-0,0075	0,9993	0,5-100	1,37	4,15

Table S2. Comparison of the developed method with other methods for the extraction of PAHs from lipidic media

Method	Matrix	Adsorbent	Sample Preparation	Limitations	Ref.
SPE/GC-MS	Edible oils	C18/silica gel	Saponification + LLE + SPE clean-up	Labor-intensive sample preparation; nonspecific adsorption	[1]
SPE/GC-MS	Edible oils	Florisil	n-Hexane extraction + DMF partition + clean-up	Multistep extraction; high solvent consumption; extensive clean-up	[2]
SPE/HPLC-UV-Vis	Edible oils; barbecue foods	Silica-alumina nanocomposites	Solvent extraction, liquid-liquid partitioning, clean-up and concentration steps	Labor-intensive workflow; multiple sample handling steps; elevated solvent consumption	[3]
SPME/GC-FID	roast meat samples	COF–TpBD	Solvent partitioning, SPE clean-up and concentration steps	High solvent consumption; multiple purification steps	[4]
SPE-GC-MS	nonpolar media	SiO_2/G-CNDs	Direct extraction from nonpolar media	-	This work

References

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