Electronic Supplementary Material

Fabric phase sorptive extraction combined with gas chromatography-mass spectrometry as an innovative analytical technique for the determination of selected polycyclic aromatic hydrocarbons in herbal infusions and tea samples

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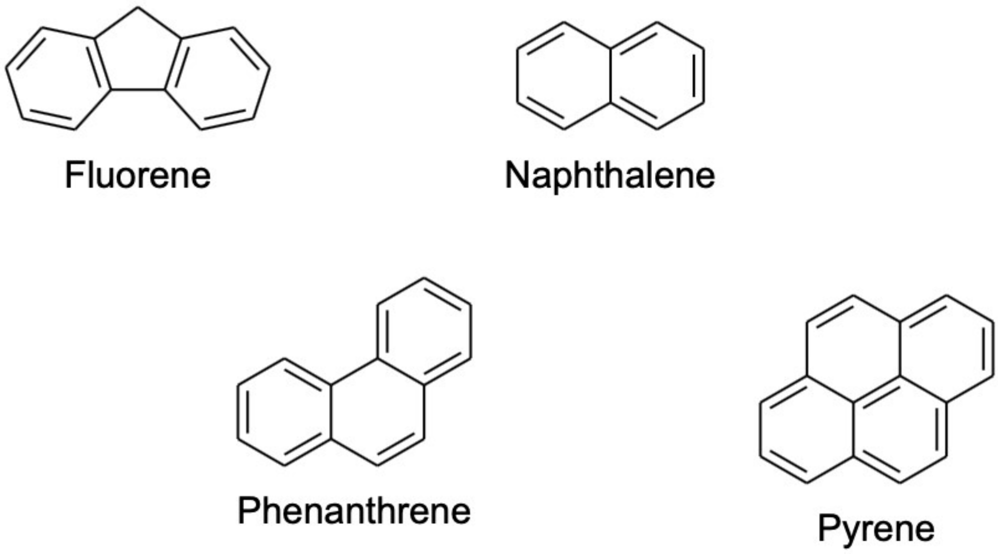


Figure S1. Structures of the selected PAHs

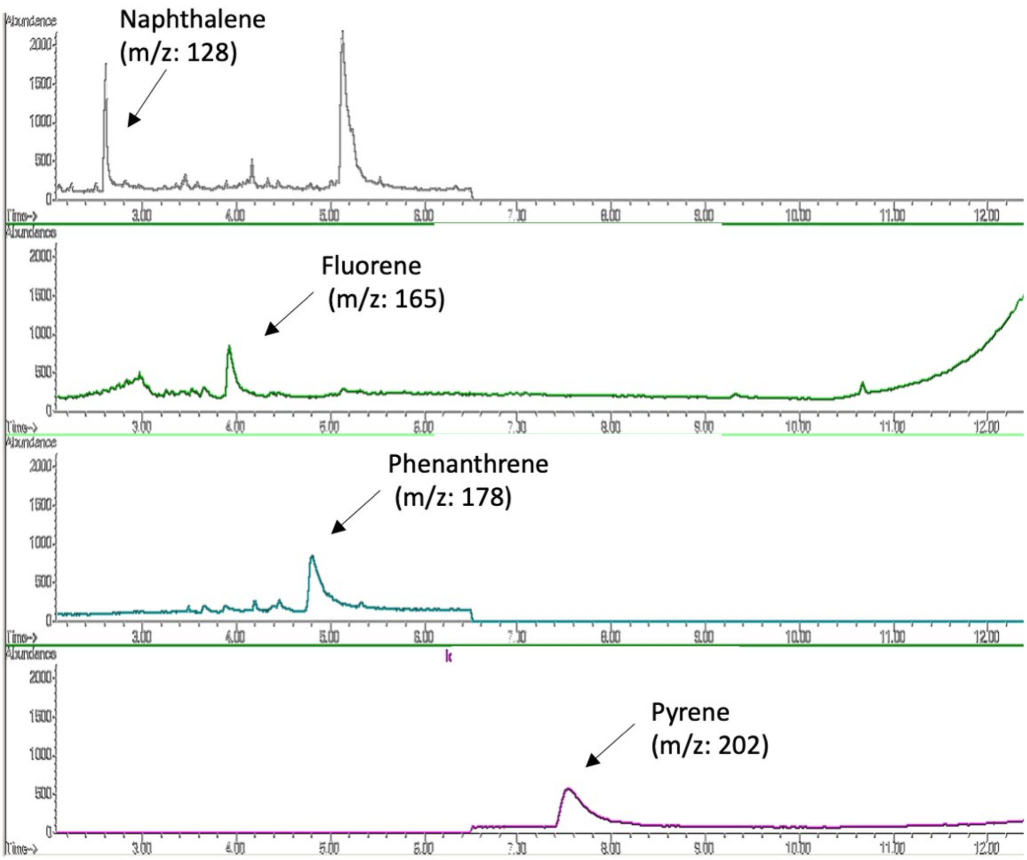


Figure S2. Representative chromatogram of a spiked herbal infusion sample (c= 10.00 ng mL^{-1})

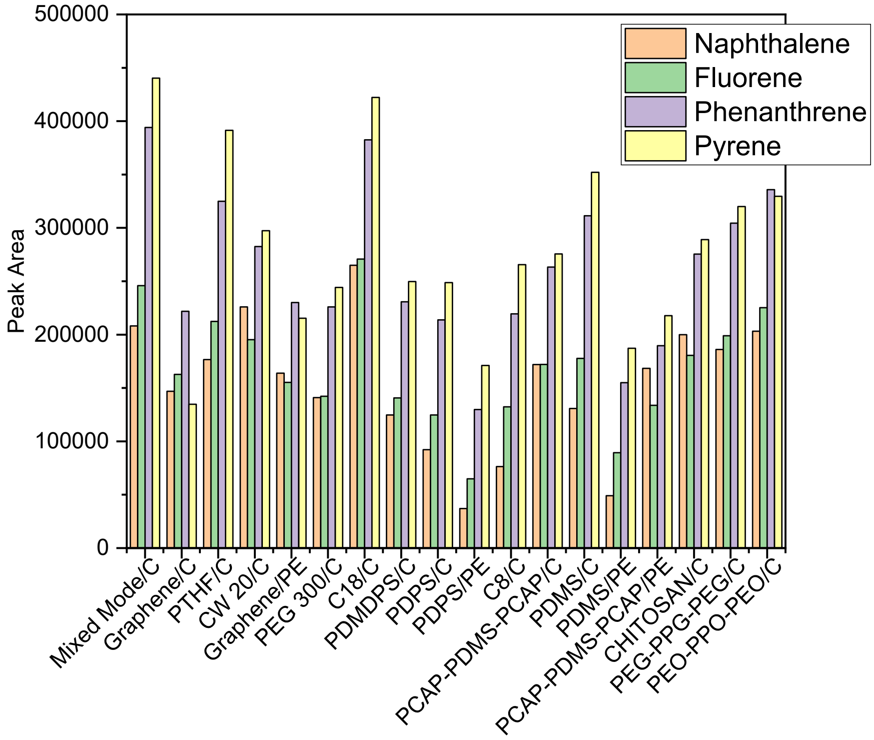


Figure S3. Comparison of different sol-gel coated FPSE membrane for the extraction of the selected PAHs.

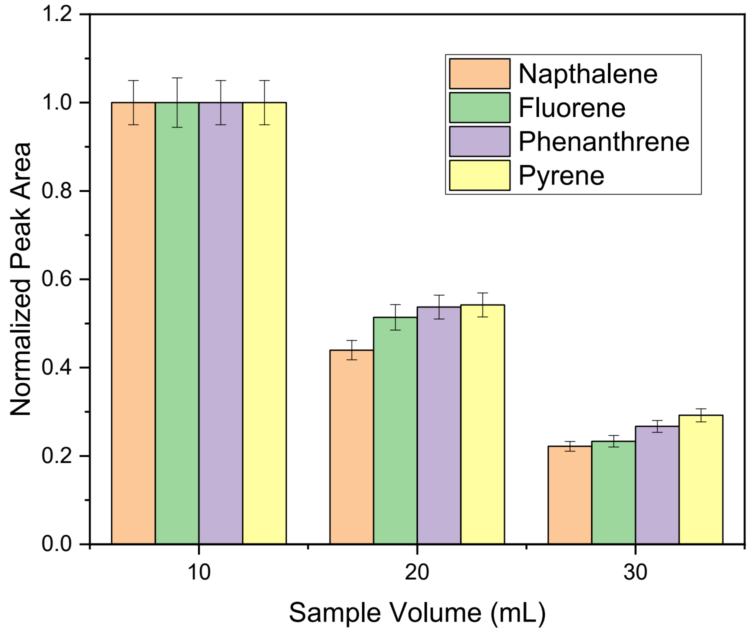


Figure S4. Study of the effect of sample volume on extraction efficiency.

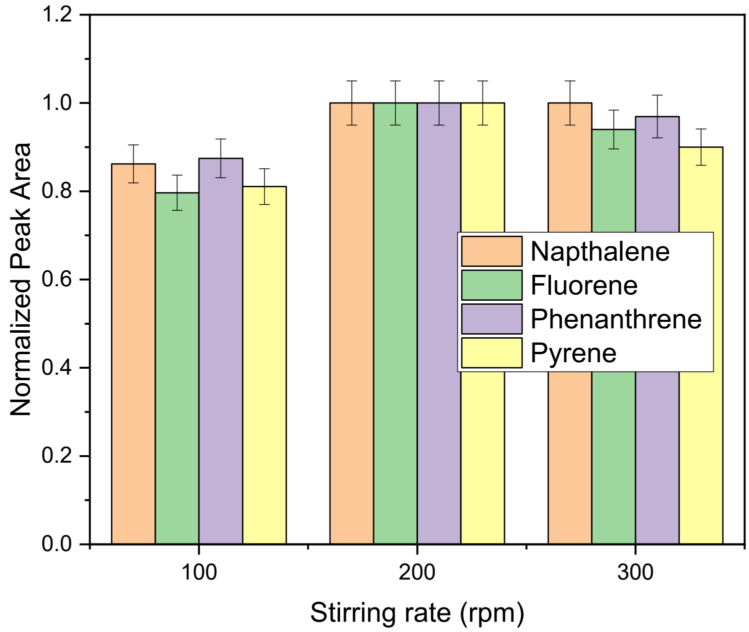


Figure S5. Study of stirring rate effect on analytes recovery

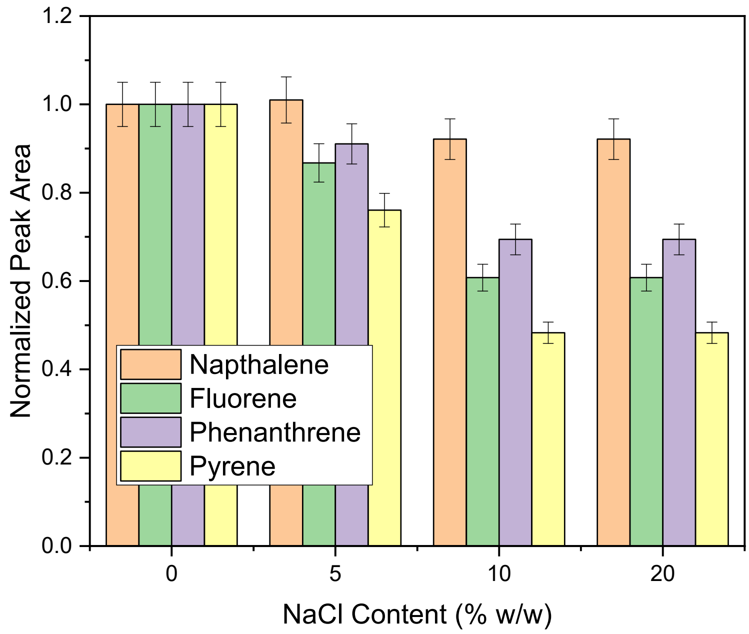


Figure S6. Study of salt addition effect on extraction efficiency.

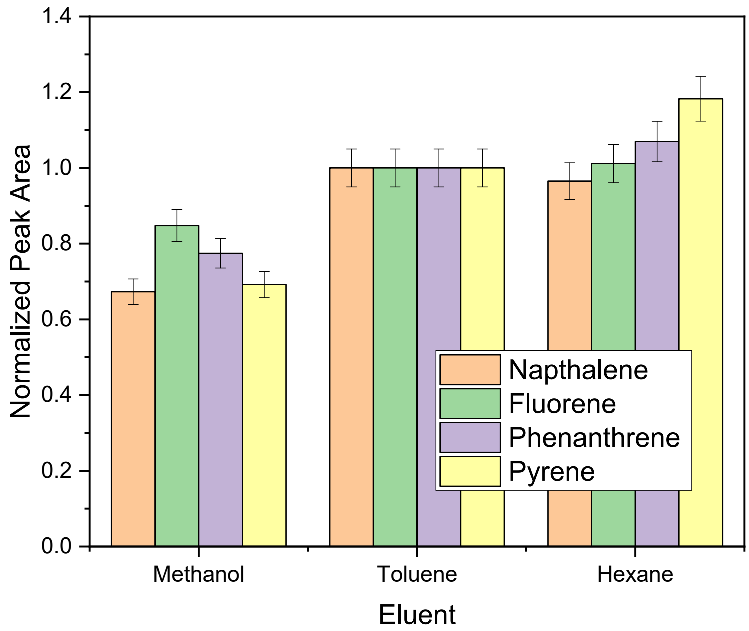


Figure S7. Selection of the appropriate eluting solvent

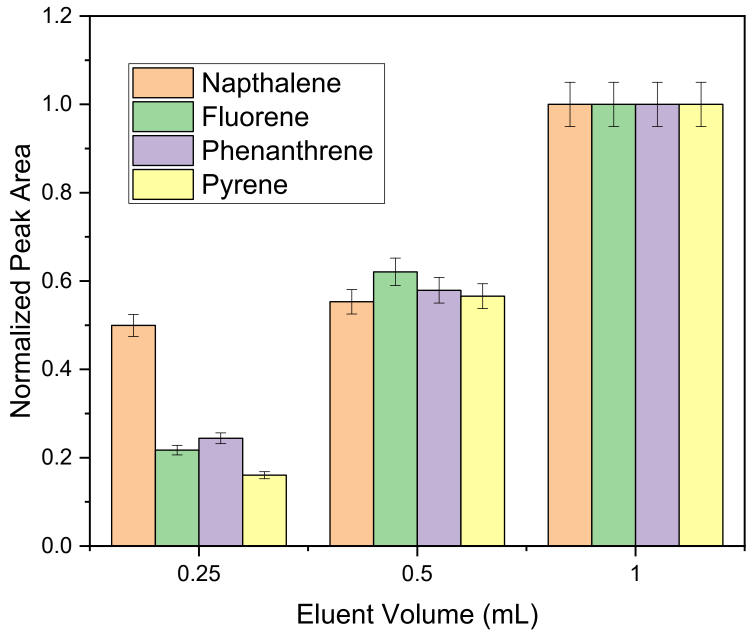


Figure S8. Study of eluent volume effect on extraction efficiency.

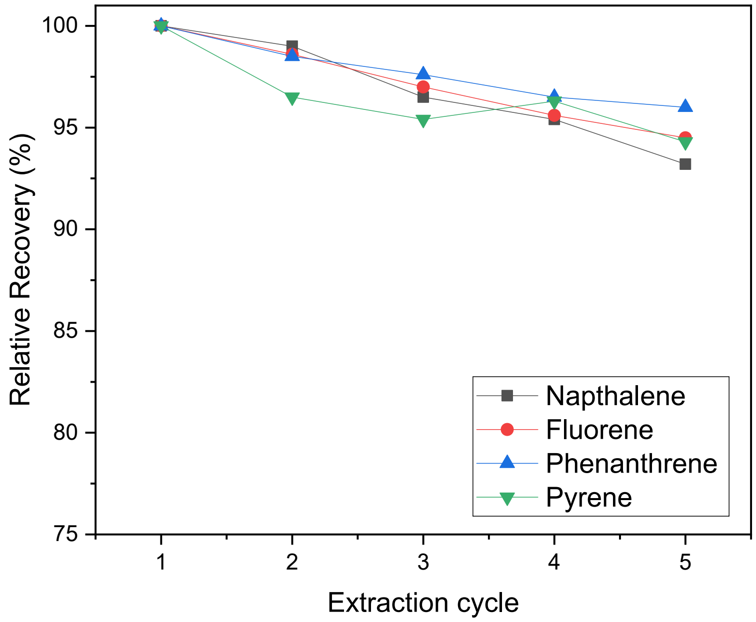
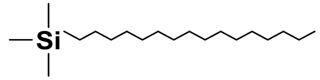
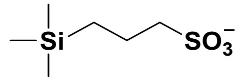
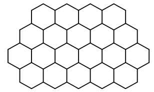
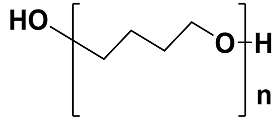
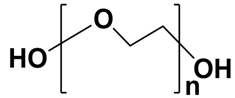
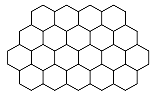
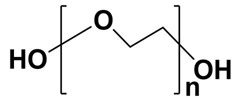
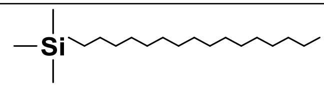
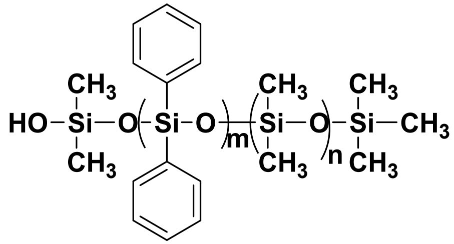
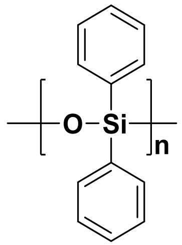
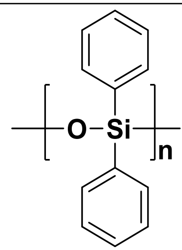
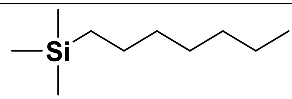
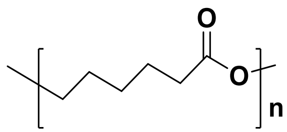


Figure S9. Results of the reusability study of the sol-gel C_{18} coated FPSE media

Table S1: List of FPSE sorbent chemistries used in the current project and their pertinent information

Phase	Substrate	Networking Precursor	Polymer/Precursor/Particle	Building block
1. Sol-gel mixed mode	Cellulose	Methyl trimethoxysilane	Octadecylsilane (C18) 3-Mercaptopropyl trimethoxysilane	 
2. Sol-gel graphene	Cellulose	Methyl trimethoxysilane	Graphene	
3. Sol-gel polytetrahydrofuran	Cellulose	Methyl trimethoxysilane	Poly(tetrahydrofuran)	
4. Sol-gel CW20M	Cellulose	Methyl trimethoxysilane	Carbowax 20M	
5. Sol-gel Graphene	Polyester	Methyl trimethoxysilane	Graphene	
6. Sol-gel polyethylene glycol 300	Cellulose	Methyl trimethoxysilane	Poly(ethylene glycol) 300	
7. Sol-gel octadecyl	Cellulose	Methyl trimethoxysilane	Octadecylsilane	

8. Sol-gel poly(dimethyl diphenyl siloxane)	Cellulose	Methyl trimethoxysilane	Poly(dimethyldiphenylsiloxane)	
9. Sol-gel poly(diphenylsiloxane)	Cellulose	Methyl trimethoxysilane	Poly(diphenylsiloxane)	
10. Sol-gel poly(diphenylsiloxane)	Polyester	Methyl trimethoxysilane	Poly(diphenylsiloxane)	
11. Sol-gel octyl	Cellulose	Methyl trimethoxysilane	Octyl silane	
12. Sol-gel polycaprolactone-polydimethylsiloxane-polycaprolactone	Cellulose	Methyl trimethoxysilane	Poly(caprolactone)-b-Poly(dimethylsiloxane)-b-Poly(caprolactone)	

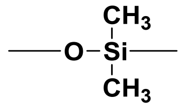
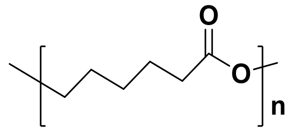
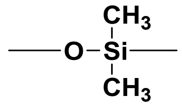
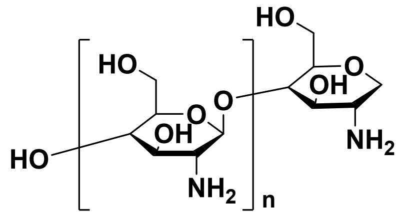
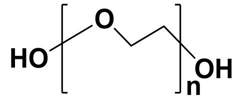
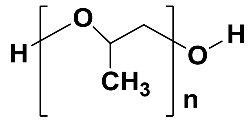
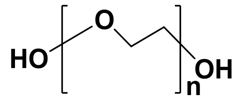
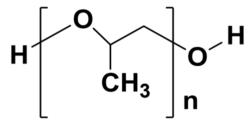
				
13. Sol-gel polycaprolactone-polydimethylsiloxane-polycaprolactone	Polyester	Methyl trimethoxysilane	Poly(caprolactone)-b-Poly(dimethylsiloxane)-b-Poly(caprolactone)	 
14. Sol-gel chitosan		Methyl trimethoxysilane	Chitosan	
15. Sol-gel poly(ethylene glycol)-poly(propylene glycol)-poly(ethylene glycol)	Cellulose	Methyl trimethoxysilane	Poly(ethylene glycol)-b-poly(propylene glycol)-b-poly(ethylene glycol)	 
16. Sol-gel poly(propylene oxide)-poly(ethylene oxide)-poly(propylene oxide)	Cellulose	Methyl trimethoxysilane	Poly(propylene oxide)-b-poly(ethylene oxide)-b-poly(propylene oxide)	 

Table S2. Analysis of real samples

Analyte	Added (ng mL^{-1})	CH-1		CH-2		CH-3		GMT		IN-1		IN-2		IN-3		GT	
		Found (ng mL^{-1})	RR%	Found (ng mL^{-1})	RR%	Found (ng mL^{-1})	RR%	Found (ng mL^{-1})	RR%	Found (ng mL^{-1})	RR%	Found (ng mL^{-1})	RR%	Found (ng mL^{-1})	RR%	Found (ng mL^{-1})	RR%
Naphthalene	0	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-
	10	9.1 ± 0.5	91.0	9.4±0.4	94.0	9.8 ± 0.9	98.0	9.2 ± 0.3	92.0	10.7±0.4	107.0	9.3±0.1	93.0	9.6±0.5	96.0	10.1±0.1	101.0
Fluorene	0	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-
	10	10.2± 0.1	102.0	9.7±0.1	97.0	9.3± 0.2	93.0	9.8± 0.3	98.0	8.9±0.3	89.0	10.5±0.3	105.0	9.3±0.3	93.0	9.3±0.3	93.0
Phenanthrene	0	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-	0.30±0.01	-
	10	10.3 ± 0.7	103.0	10.6±0.6	106.0	10.8 ± 0.4	108.0	10.3± 0.1	103.0	10.9±0.1	109.0	10.9±0.2	109.0	95.1±0.3	95.0	10.1±0.2	98.0
Pyrene	0	0.52±0.04	-	0.31±0.02	-	<LOD	-	0.42±0.01	-	<LOD	-	<LOD	-	<LOD	-	<LOD	-
	10	10.4± 0.4	98.8	10.1±0.1	97.9	10.0± 0.4	100.0	10.1 ± 0.3	96.8	10.0±0.3	100.0	10.8±0.1	108.0	9.9±0.5	99.0	10.0±0.1	100.0