Supporting Information for

Fe-Ni@ACC Nanocomposite for Magnetic Dispersive Micro Solid-phase Extraction of Cu (II) From Food and Hair Samples

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Table S1. Application of the developed M-D-µSPE method (pH: 9, Fe-Ni@ACC amount: 5 mg, eluent type: 2M HNO_3, eluent volume: 0.75 mL N=3).

	Dye-Free Hair		Colored Hair		Cigarette	
Added (µg g^{-1})	Found (µg g^{-1})	Recovery (%)	Found (µg g^{-1})	Recovery (%)	Found (µg g^{-1})	Recovery (%)
0	BDL	-	0.148 ± 0.001	-	0.124±0.005	-
0.100	0.098± 0.001	98	0.245 ± 0.002	97	0.221± 0.002	97
0.200	0.191 ± 0.002	96	0.342± 0.003	97	0.318 ± 0.003	97
0.400	0.390 ± 0.003	98	0.561 ± 0.005	103	0.512 ± 0.005	97

BDL: below the detection limit.

Table S2. Application of M-D-µSPE method to some real samples (pH: 9, Fe-Ni@ACC amount: 5 mg, eluent type: 2M HNO_3, eluent volume: 0.75 mL N=3).

	Black Tea / Turkey		Black Tea / Indonesia		Tap water	
Added (µg g^{-1})	Found (µg g^{-1})	Recovery (%)	Found (µg g^{-1})	Recovery (%)	Found (µg mL^{-1})	Recovery (%)
0	0.248±0.004	-	0.442±0.006	-	BDL	-
0.200	0.442±0.010	97	0.635±0.010	97	0.192±0.005	96
0.400	0.636±0.020	97	0.822±0.030	95	0.377± 0.010	94
0.800	1.025±0.020	97	1.268 ± 0.030	103	0.781± 0.020	98

BDL: below the detection limit.

Table S3. Comparison of the SPME method developed for the separation and preconcentration of Cu (II) with other methods in the literature.

Method	System / Reagents	LOD ($\mu g\ L^{-1}$)	LOQ ($\mu g\ L^{-1}$)	PF	RSD (%)	Instrument	Ref.
Solid Phase Microextraction	Pyrocatechol violet impregnated magnetic graphene oxide	4.0	13.3	20	4.93	FAAS	[2]
Ionic liquid-based ultrasound assisted microextraction	1-butyl-3-methylimidazolium hexafluorophosphate $[C_4mim][PF_6]$	0.36	-	31	5	AAS	[6]
Solid Phase Microextraction	Bis(2-hydroxy acetophenone) ethylenediamine	0.27	-	-	0.90	AAS	[38]
Solidified floating organic drop microextraction	sodium dodecyl benzene sulfonate	0.18	0.58	541	2.7	FI-FAAS	[60]
Solid Phase Microextraction	bamboo fiber	0.5	1.66	33	2.70-2.79	FAAS	[61]
Dispersive liquid liquid microextraction	corrugated quartz tube	0.7	2.2	-	3.7-8.4	FAAS	[62]
Thin film microextraction	Poly m-phenylenediamine/CNT electrospun nanofiber	0.32	-	76	2.9-3.7	FAAS	[63]
Dispersive liquid liquid microextraction	No-Vanillidin-2-amino-p-cresol, 1-undecanol	0.93	-	20	-	FAAS	[64]
Ultrasound assisted liquid phase microextraction	Deep eutectic solvent	6.6	21.8	15	5	FAAS	[65]
Magnetic dispersive micro solid-phase extraction	Fe-Ni@ACC	0.69	2.29	40	1.18	FAAS	This work

LOD: Limit of detection, LOQ: Limit of quantification, PF: Preconcentration Factor, % RSD: Relative Standard Deviation,