

Electronic Supplementary Information

Carbon aerogel-based solid-phase microextraction coating for the analysis of organophosphorus pesticides

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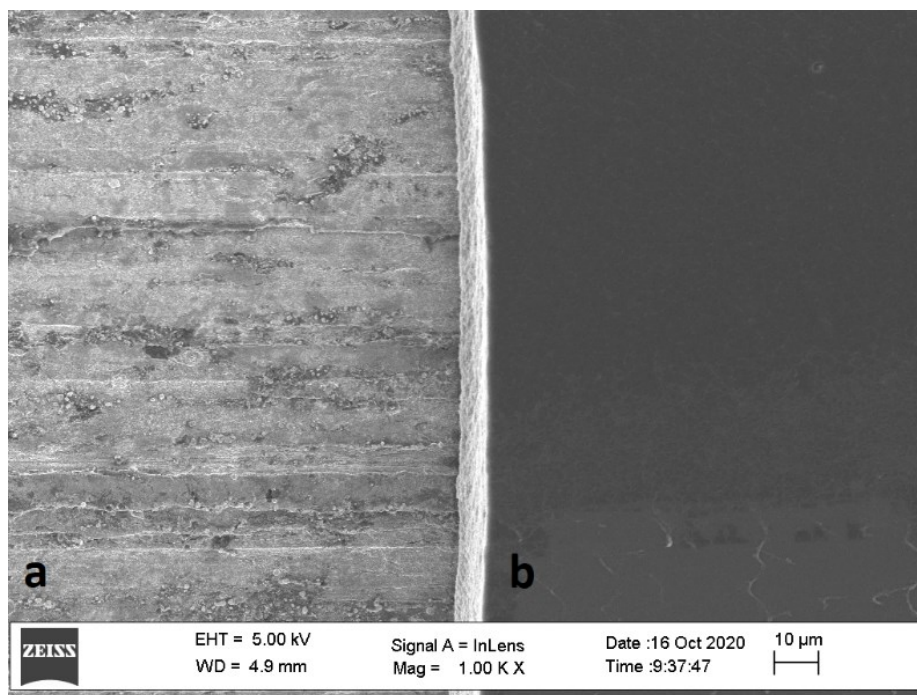


Fig. S1. SEM image of the surface of the uncoated stainless steel wire (a) and CA-coated SPME fiber (b)

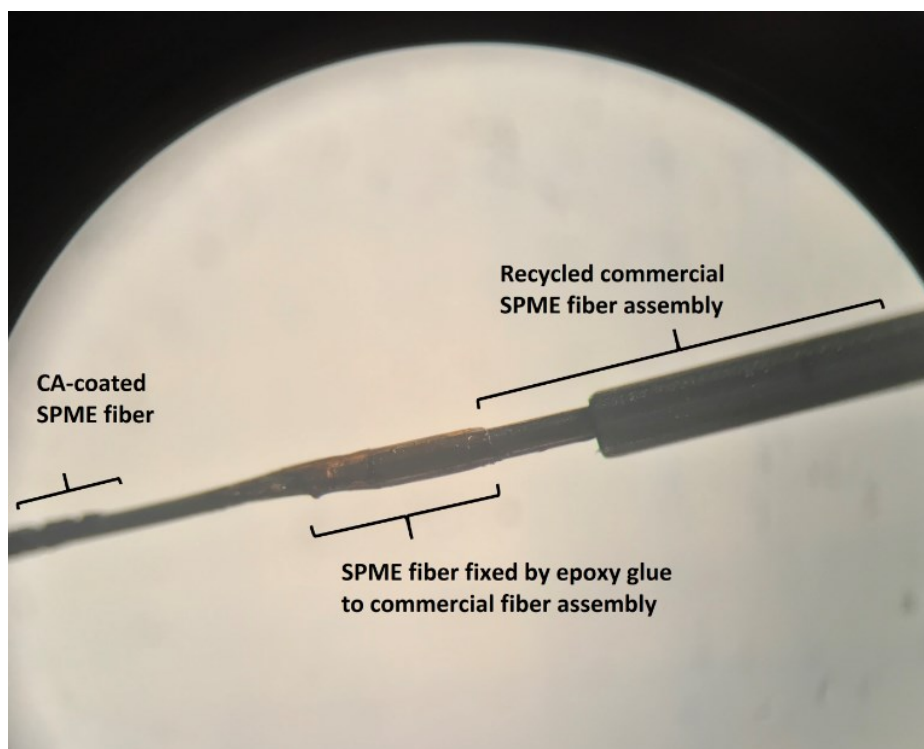


Fig. S2. The prepared coated SPME fibers fixed by epoxy glue to a recycled commercial SPME fiber assembly

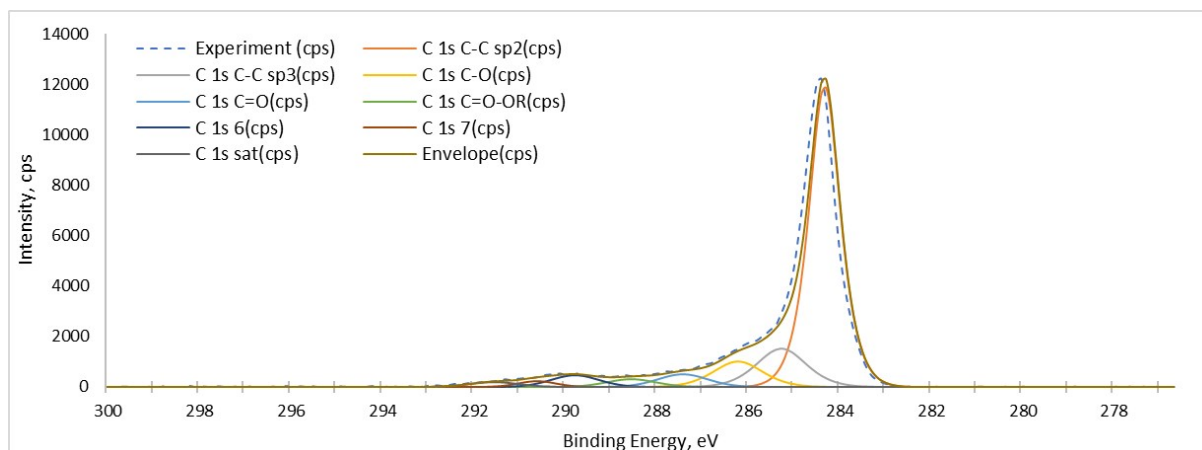


Fig. S3. The XPS C1s curve fitting of CA-based SPME coating material.

Table S1. The quantification data of the XPS analysis of CA-based SPME coating material.

Peak	Type	Position BE (eV)	FWHM (eV)	Raw Area (cps eV)	RSF	Atomic Mass	Atomic Conc %	Mass Conc %
O 1s oxide	Comp	530.533	1.480	277.2	0.780	15.999	0.56	0.74
O 1s =O	Comp	531.656	1.174	322.3	0.780	15.999	0.66	0.86
O 1s -O-	Comp	533.069	1.399	779.9	0.780	15.999	1.59	2.08
O 1s H2O	Comp	535.872	1.483	517.7	0.780	15.999	1.05	1.38
C 1s C-C sp2	Comp	284.424	0.784	11033.0	0.278	12.011	67.65	66.80
C 1s C-C sp3	Comp	285.357	1.264	2130.6	0.278	12.011	13.06	12.90
C 1s C-O	Comp	286.307	1.256	1407.9	0.278	12.011	8.63	8.52
C 1s C=O	Comp	287.506	1.273	669.4	0.278	12.011	4.10	4.05
C 1s C=O-OR	Comp	288.663	1.253	440.6	0.278	12.011	2.70	2.67

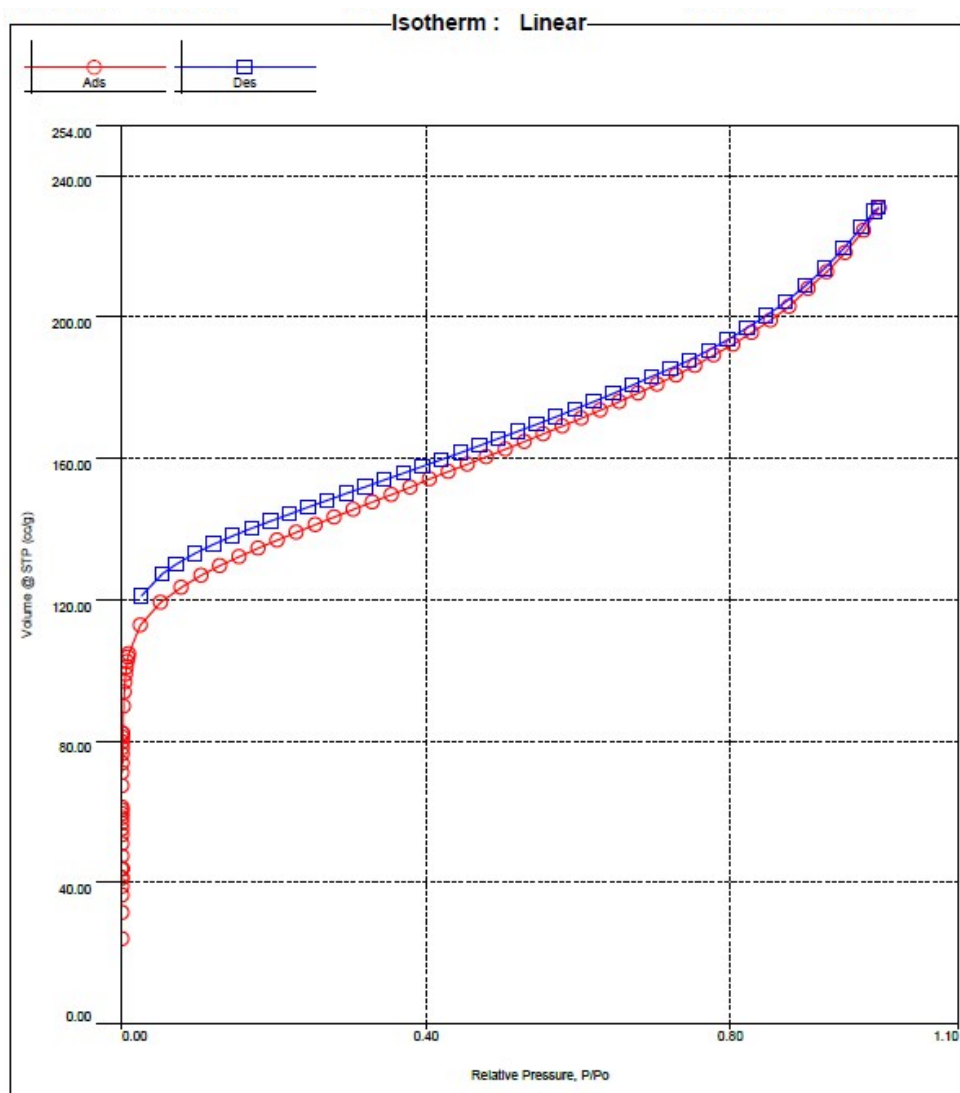


Fig. S4. N₂ adsorption and desorption isotherms of CA-based SPME coating material. Circle markers: adsorption, square markers: desorption branches

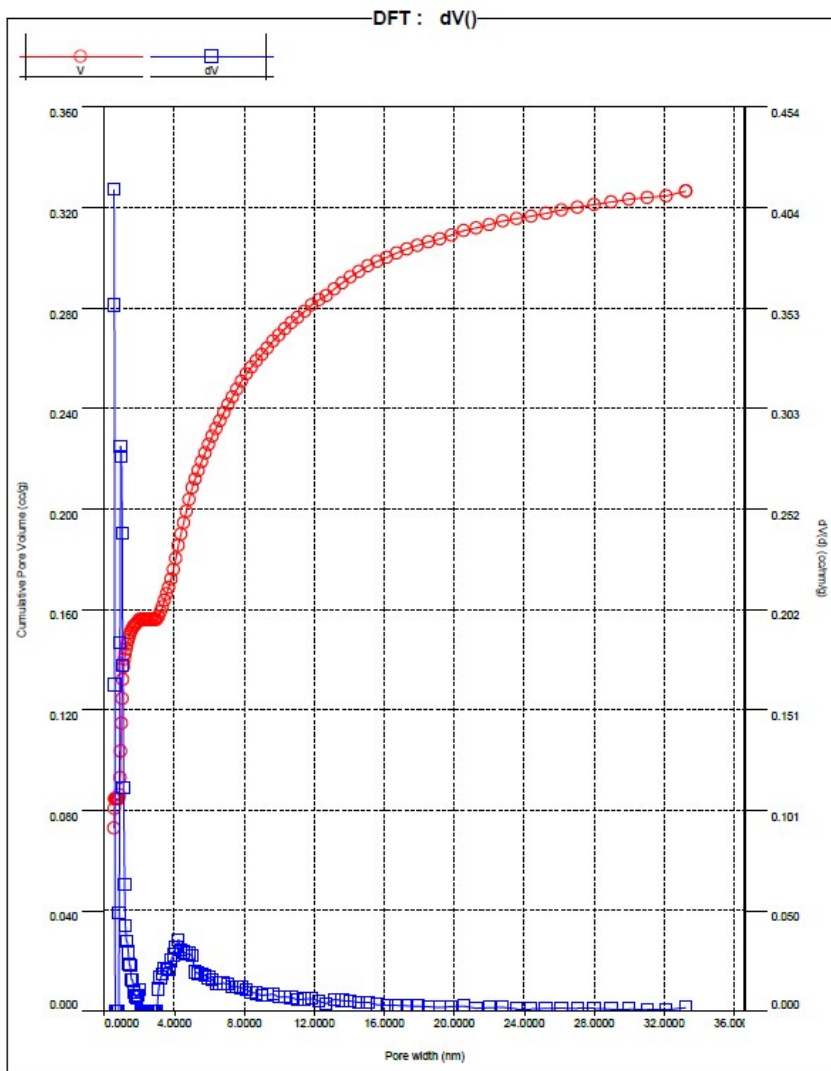


Fig. S5. DFT pore-size distribution of CA-based SPME coating material