

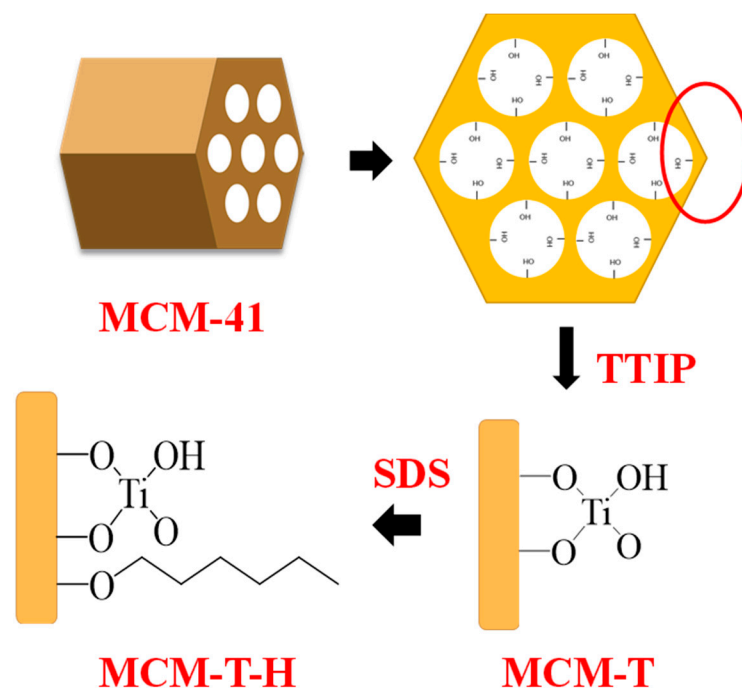
## Electric Supplementary Material

# Hydrophobic Mesoporous Silica-Coated Solid Phase Microextraction Arrow System for the Determination of Six Biogenic Amines in Pork and Fish

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**Figure S1.** Synthesis route of MCM-T-H.

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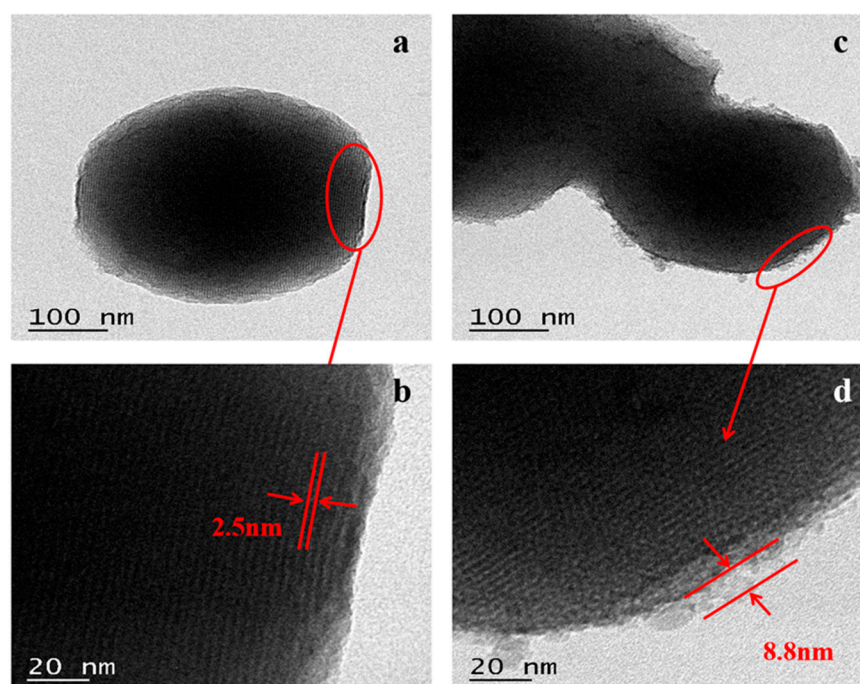
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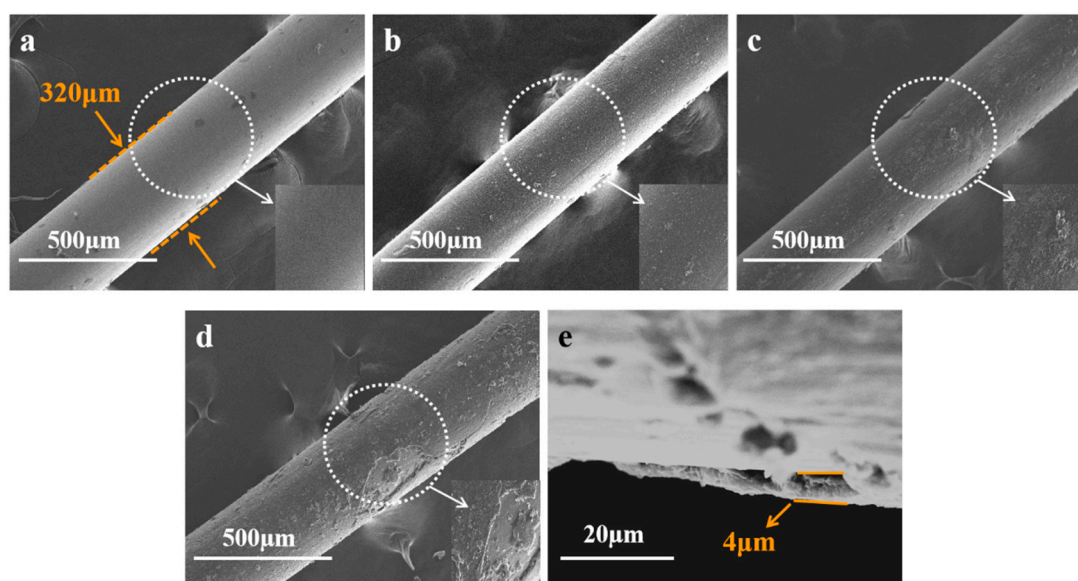
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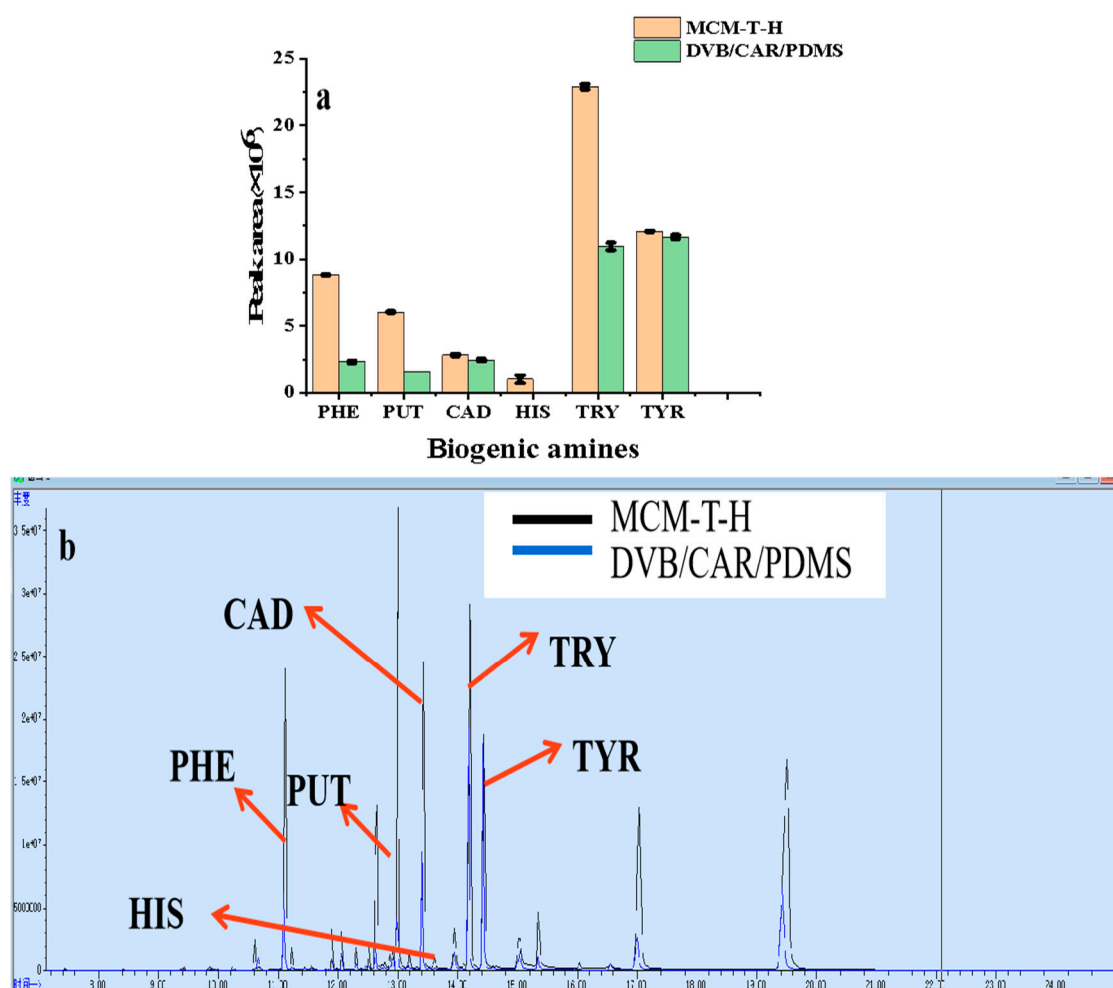
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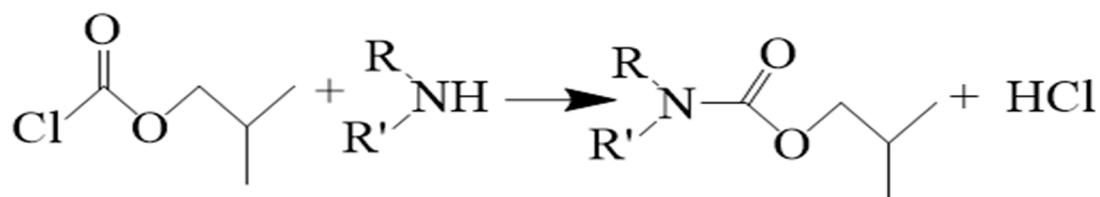
**Figure S2.** TEM images of (a) MCM-41; (b) MCM-41; (c) MCM-T-H; and (d) MCM-T-H.



**Figure S3.** (a) Bare SPME Arrow; (b) SPME Arrow coated with MCM-T-H; (c) MCM-T-H-SPME Arrow used 10 times; (d) MCM-T-H-SPME Arrow used 50 times; and (e) coating thickness.



**Figure S4.** Comparison of extraction efficiency between MCM-T-H and DVB/CAR/PDMS-coated SPME Arrows.



**Figure S5.** Schematic representation of the derivatization of BAs with isobutyl chloroformate.

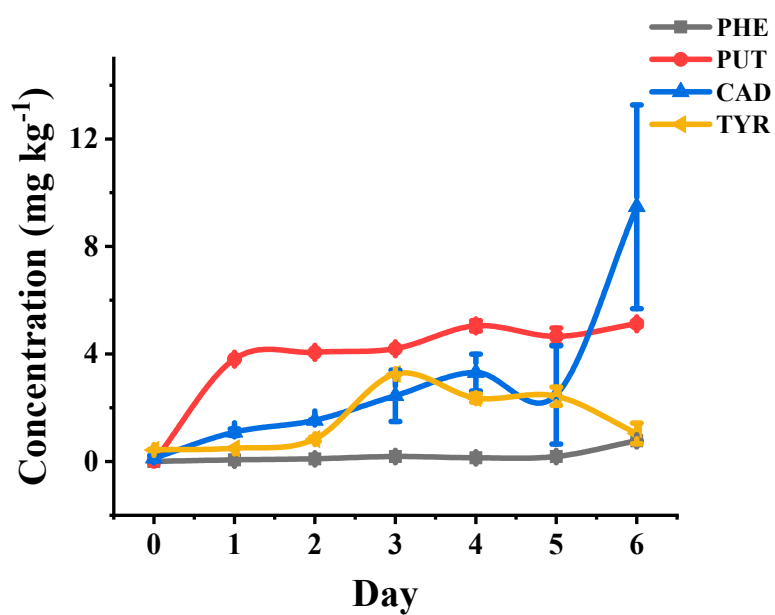


Figure S6. Variations of the biogenic amines content in pork over 7 days.

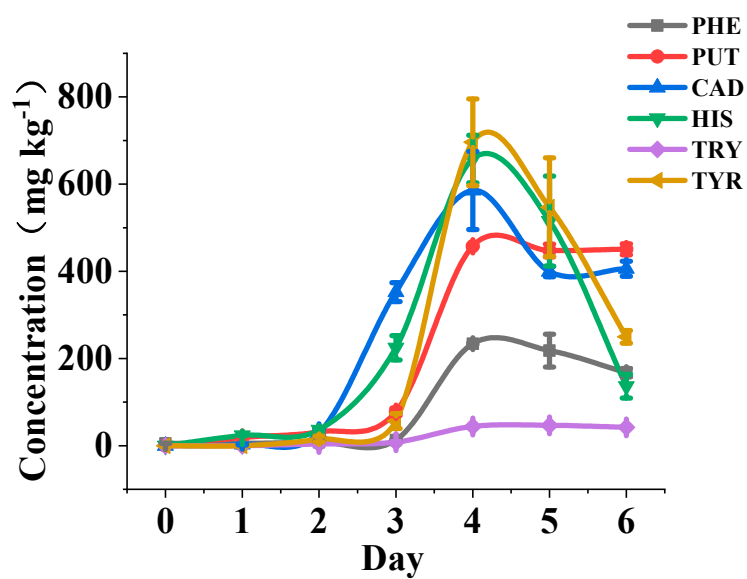
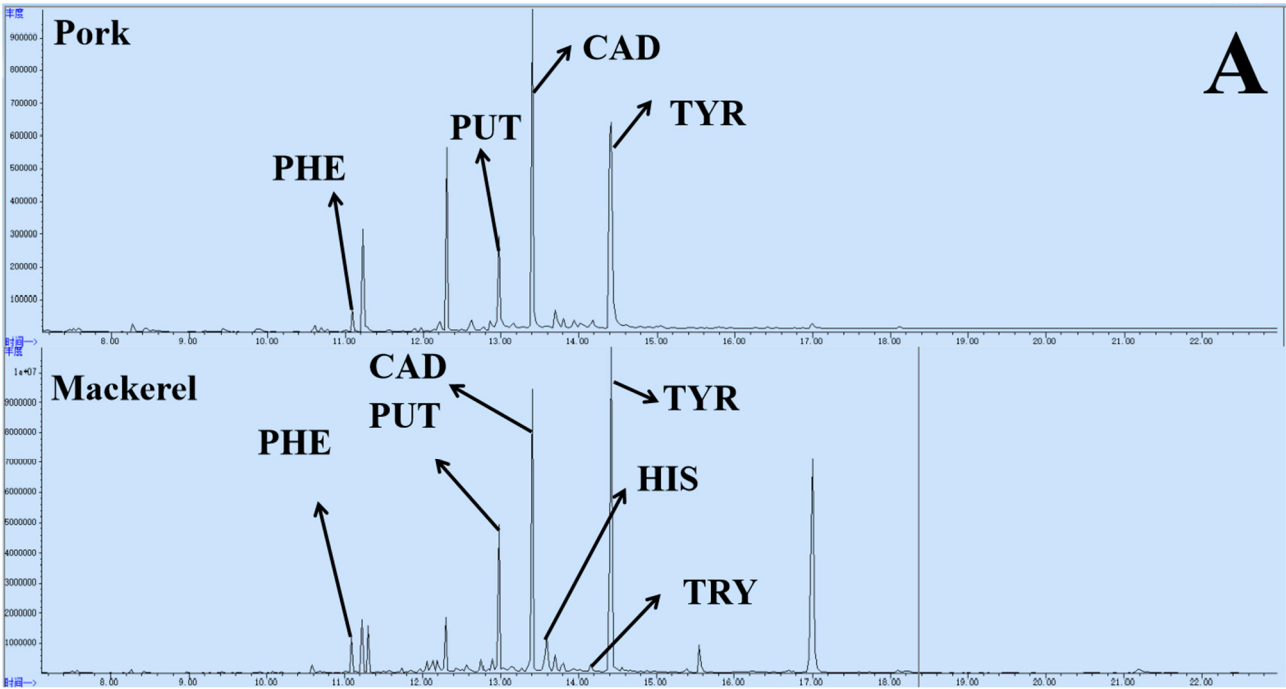


Figure S7. Variations of the biogenic amines content in mackerel over 7 days.



(A)

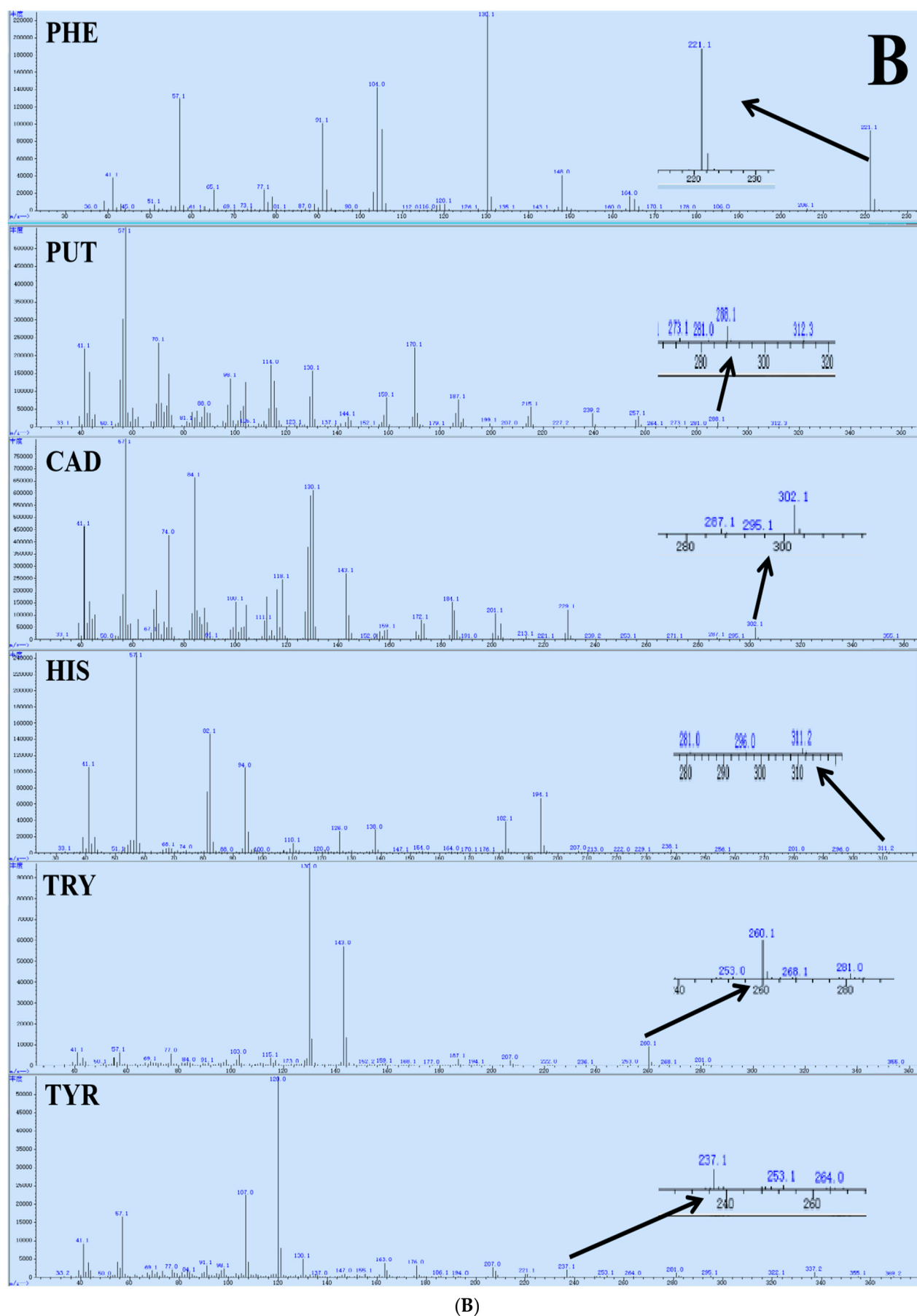
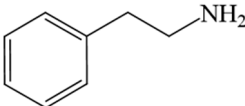
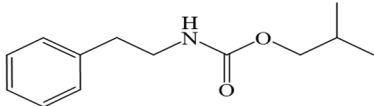
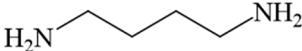
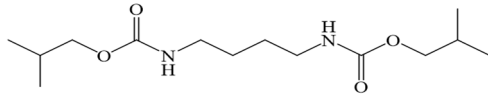
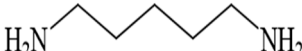
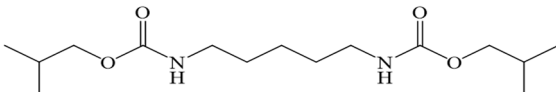
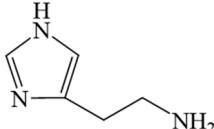
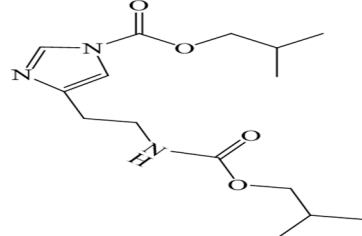
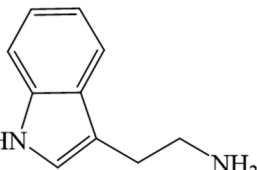
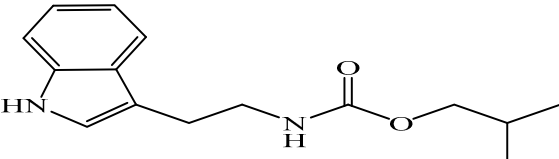


Figure S8. GC chromatograms (A) and mass spectrums (B) of pork and mackerel.

**Table S1.** Textural properties of MCM-41 series materials.

	BET Surface Area (m <sup>2</sup> g <sup>-1</sup> )	Pore Diameter (nm)	Total Pore Volume (cm <sup>3</sup> g <sup>-1</sup> )
MCM-41	893.3	2.37	0.73
MCM-T	587.4	2.22	0.50
MCM-T-H	604.5	1.87	0.47

**Table S2.** Fragments, retention times, and structural formulas for the procedure of determination of BAs based on the application of the GC-MS technique.

Analytes	<i>m/z</i>	Retention Time (min)	Chemical Structure	Derivatized Products
PHE	221	11.14		
PUT	288	13.02		
CAD	302	13.46		
HIS	311	13.64		
TRY	260	14.32		
TYR	237	14.51	