

Facile synthesis of nitrogen-doped porous carbon spheres

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Table S1: Literature review on synthesis conditions employed to synthesize carbon spheres using polymers.

Precursor	Solvent	Catalyst	Temperature/Time	Refs.
Resorcinol/formaldehyde	Ethanol/water	NH ₄ OH	10-60°C, 24h 100°C, 24h (autoclave)	1
Resorcinol/formaldehyde, colloidal silica	Ethanol/water	NH ₄ OH	30° 24h 100°C 24h (autoclave)	2;3
Dopamine	Ethanol/water	NH ₄ OH	30h at room T	4
Dopamine Hydrochloride	Ethanol//water isopropyl alcohol/ethylene glycol	-	> 3 days	5
3-aminophenol/ formaldehyde	Ethanol/water	Urea	30°-6h	6
Melamine Resorcinol Formaldehyde	Water	-	40-80°C, 1h 80-180°C, 24h (autoclave)	7
Melamine Formaldehyde	Water	Formic acid	80°C	8
Phloroglucinol Terephthaladehyde Resorcinol Formaldehyde	Water	NH ₄ OH	70°C, 15-480 min 100°C, 24 (autoclave)	9
Resorcinol/ formaldehyde	Ethanol/water	Ethylenediamine	30°C, 24h 100°C, 24h (autoclave)	10
Resorcinol/ formaldehyde	Ethanol/water	NH ₄ OH, Cysteine	30-90°C, 24h 100°C, 24h (autoclave)	11;12
Tannin	Water	NH ₄ OH Para- toluenesulphonic acid	180-220°C, 24h (autoclave)	13;14
Resorcinol/ formaldehyde	Water	L-lysine NH ₄ OH	20°C, 1h 60°C, 10 min	15

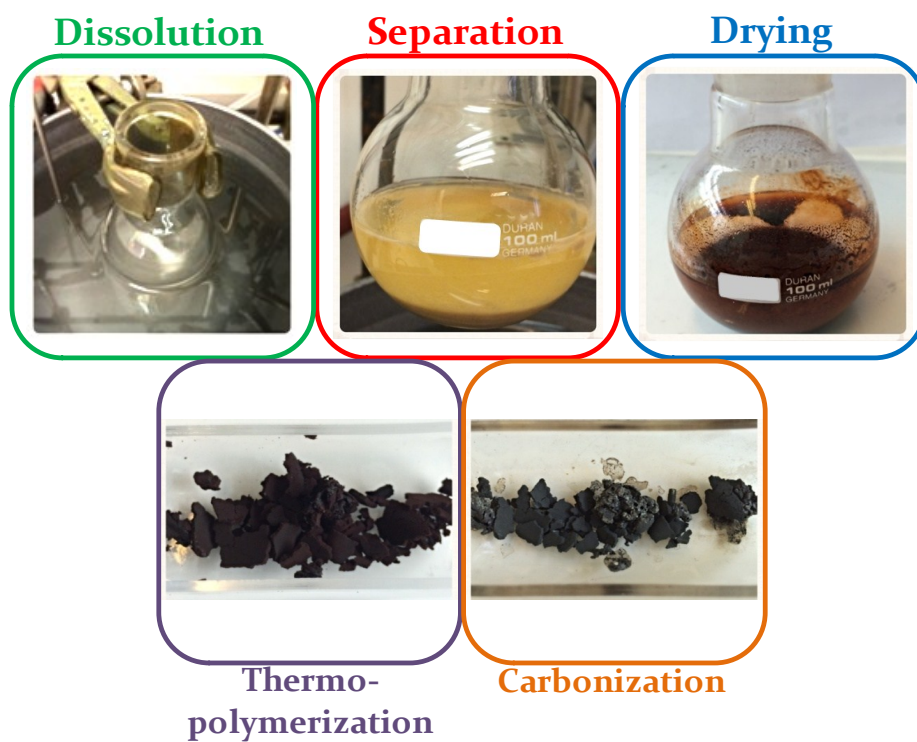


Figure S1: Different steps for the synthesis of the polymer and carbon spheres.

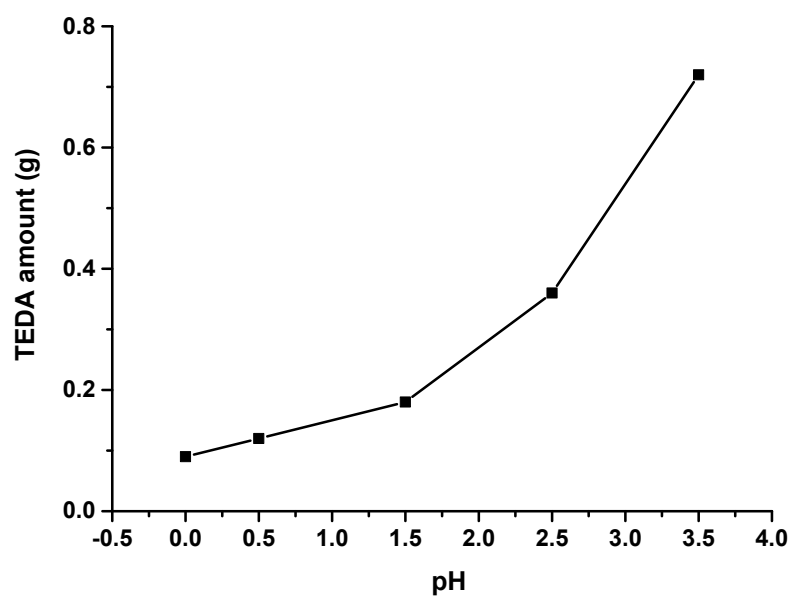


Figure S2: Evolution of the pH of solution with the amount of TEDA.

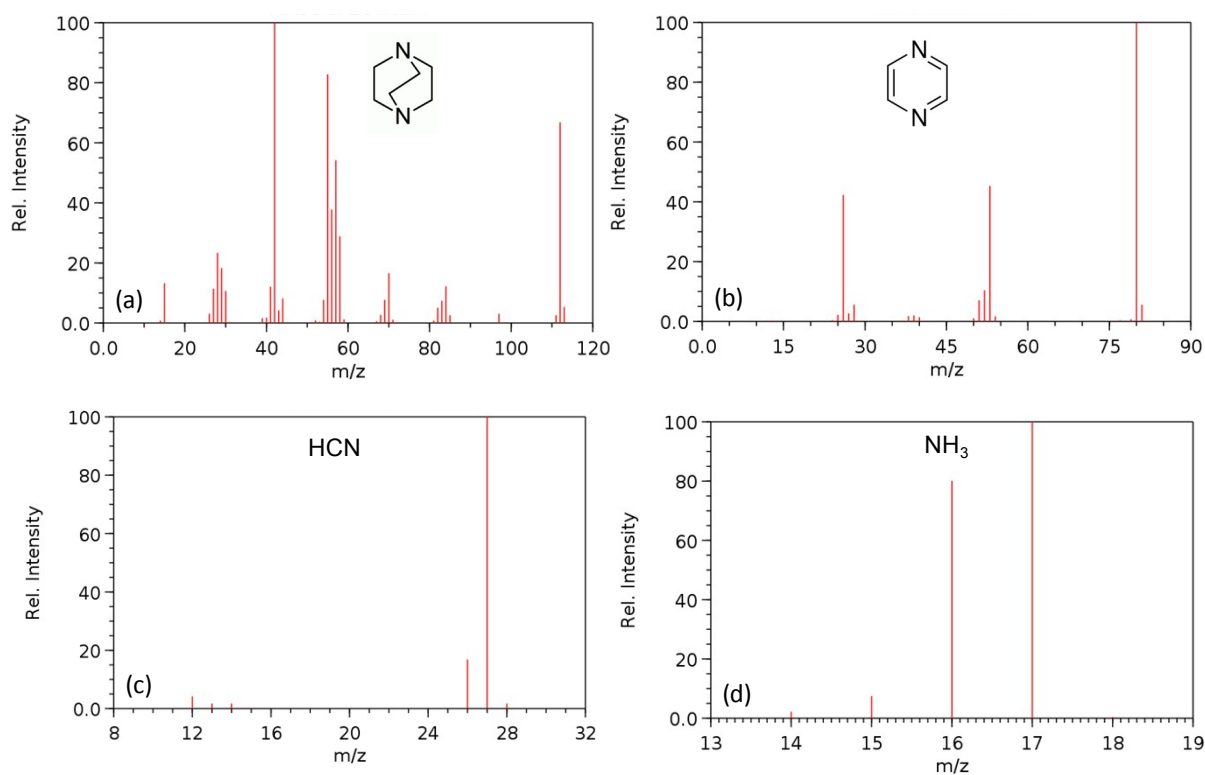


Figure S3: Mass spectra of (a) triethylenediamine (b) pyrazine and (c) hydrogen cyanide and (d) NH_3 (spectra obtained NIST Chemistry WebBook: <http://webbook.nist.gov/chemistry>).