Supporting Information

Mixed Solvent Synthesis of Polydopamine Nanospheres for Sustainable Multilayer Flame Retardant Nanocoating

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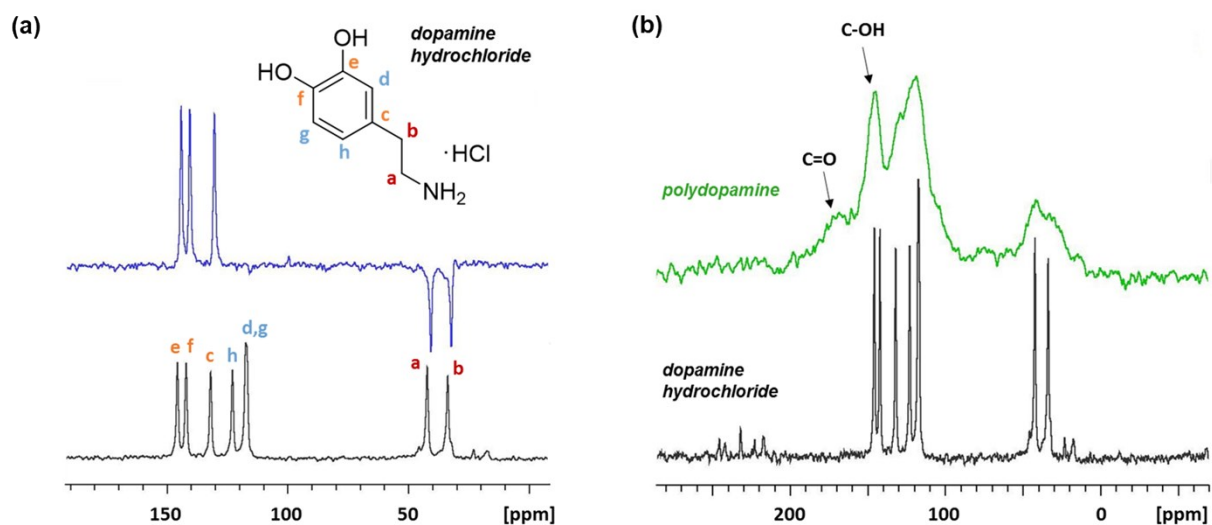[5]Department of Chemical Engineering and Materials Science, University of Minnesota, Minneapolis, MN 55455, USA

Figure S1. (a) C[13] solid state NMR cross polarization magic angle spinning spectrum of dopamine hydrochloride compared to **(b)** overlay of synthesized polydopamine and starting material.
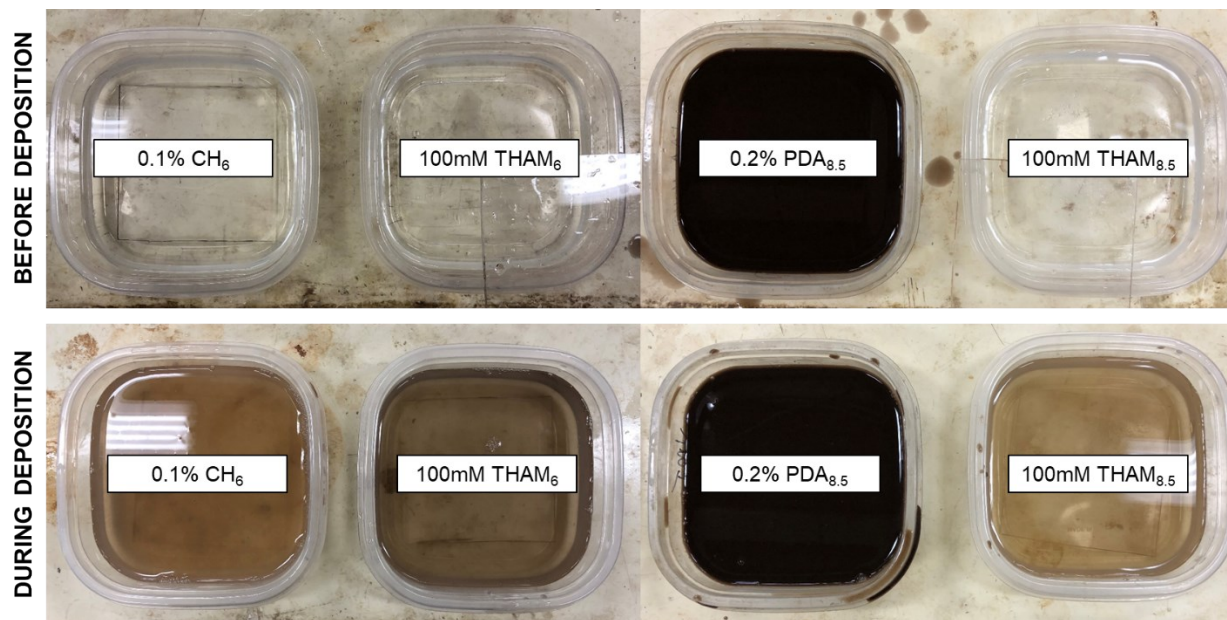
Figure S2. Appearance of aqueous solutions prior to multilayer deposition and during deposition.
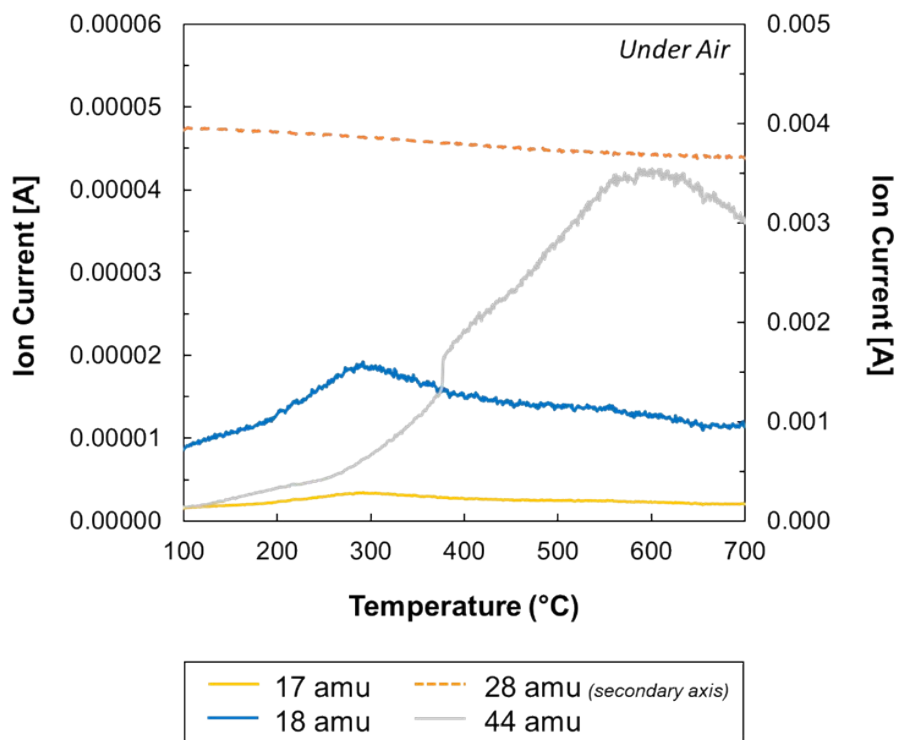

Figure S3. TGA-MS of the gases released during neat polydopamine heating under an air atmosphere.

Description of Supplementary Videos

Videos of uncoated and coated foam that were exposed to a handheld butane torch for 10 s.

(V1) Uncoated foam ignites, produces a lot of smoke, and melt drips (resulting in 0% residue).

(V2) Foam coated with 8 BL CH/PDA suppresses the production of smoke for a lengthy period of time, significantly slows the flame spread, and eliminates melt dripping behavior (resulting in ~20% residue).