A three-dimensional (3D) highly porous polymer-derived carbon modified superhydrophobic melamine formaldehyde sponge (PCS@MF) is fabricated for oil spill remediation. Resorcinol-formaldehyde (RF) derived porous carbon spheres (PCS) are embedded into 3D porous surface of melamine formaldehyde (MF) sponge through a one-step solution immersion method followed by pyrolysis. XRD, FTIR, FESEM, and TG characterizations data shows the successful fabrication of PCS@MF sponge. Moreover, the PCS@MF sponge exhibits contact angle “164°, 168° and 0°” on the water in air, water in oil, and oil in air, respectively. The PCS@MF sponge illustrated excellent absorption capacity with ~70-90% of various oils of its weight can be separated in the first cycle. Moreover, the flexible PCS@MF sponge was reusable, and oil retention can reach up to “85–90%” at 20°C using repeated sorption-mechanical squeezing test. The work identifies a facile, low-cost, environment-friendly synthesis method for developing sorbents for oil spill cleanup.

**Abstract**

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