

Forming Fused Aromatic Organic Networks for Energy Applications

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Stable fused organic networks have been designed and synthesized. They have uniformly distributed heteroatoms,¹ holes with heteroatoms,² and transition metal nanoparticles in the holes.³ The structures were confirmed using various characterization techniques. Based on the stoichiometry of 2D layered structures, they were, respectively, designated C₂N, C₃N, C₄N, and M@C₂N (M = Co, Ni, Pd, Pt, Ru). Furthermore, robust three-dimensional (3D) cage-like organic networks have also been constructed and they show high sorption properties.^{4,5} The results suggest that these newly-developed robust fused aromatic 2D and 3D organic networks offer greater opportunities for energy applications.

References:

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