Self-Supported NHC–Palladium Catalyst for the Strecker Synthesis

Significance: The organometallic hollow sphere (OMHS) catalyst was prepared by self-supporting of Pd(OAc)$_2$ and tetrahedral 1 having four imidazolium salts. The Strecker reaction of aryl methyl ketones 2 with OMHS gave the corresponding $\alpha$-aminonitriles 3 in 3–91% yield.

Comment: The average diameter of OMHS was 1.50±0.15 $\mu$m. OMHS was reused twice without loss of catalytic activity. The catalyst was characterized with SEM, TEM, EDS, TGA, elementary analysis, and solid-phase $^{13}$C NMR spectroscopy.

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