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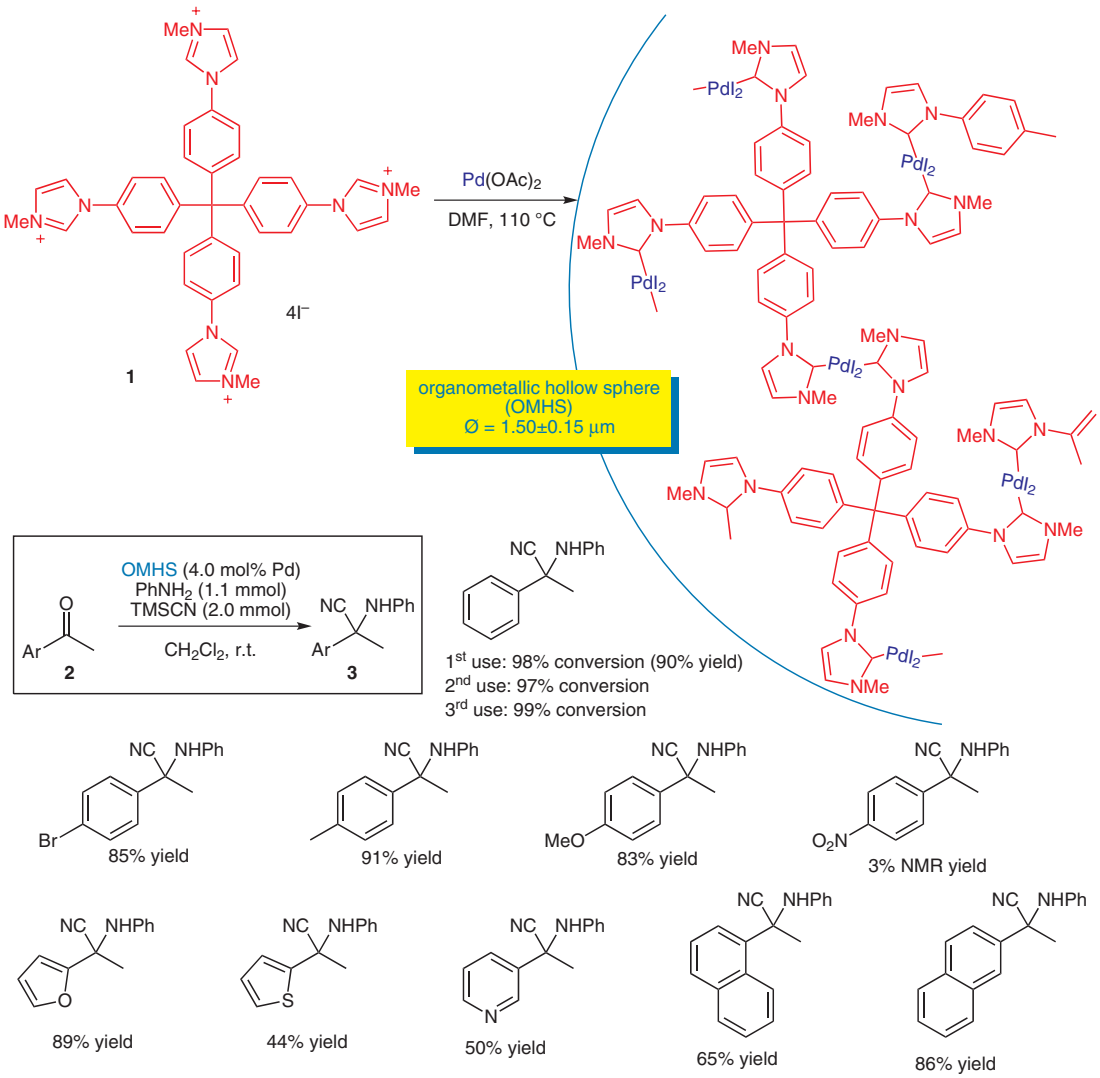
Organometallic Hollow Spheres Bearing Bis(N-Heterocyclic Carbene)–Palladium Species: Catalytic Application in Three-Component Strecker Reactions

Angew. Chem. Int. Ed. **2010**, *49*, 7718-7722.

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 α-aminonitriles **3** in 3–91% yield.

Comment: The average diameter of OMHS was 1.50±0.15 µm. 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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Synfacts 2011, 3, 0337-0337 Published online: 16.02.2011
DOI: 10.1055/s-0030-1259462; **Reg-No.:** Y00711SF

Category

Polymer-Supported Synthesis

Key words

organometallic hollow spheres
Strecker reaction
ketones
palladium