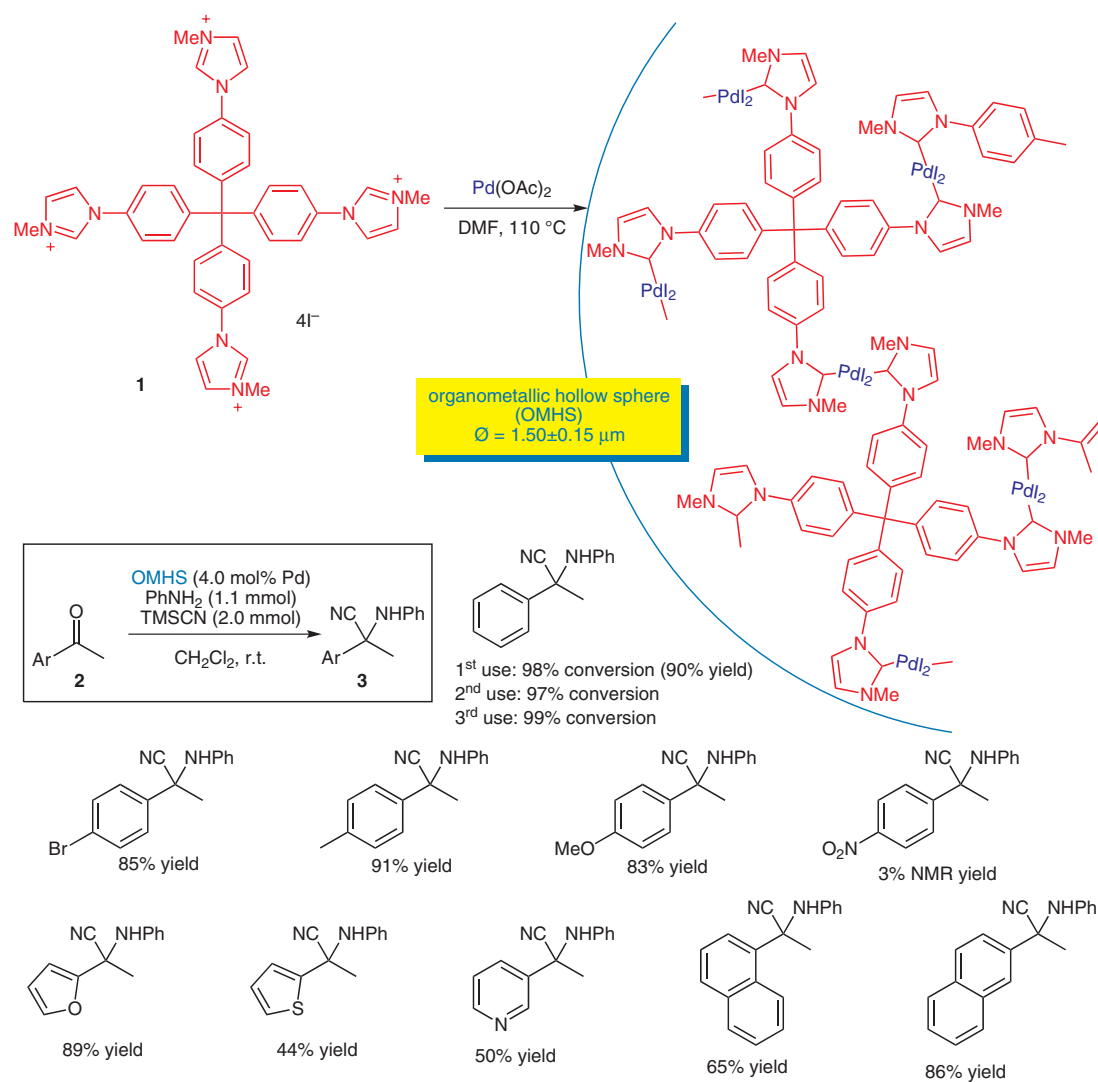


J. CHOI, H. Y. YANG, H. J. KIM, S. U. SON* (SUNGKYUNKWAN UNIVERSITY, SUWON AND KOREA BASIC SCIENCE INSTITUTE, DAEJEON, SOUTH KOREA)

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

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Self-Supported NHC–Palladium Catalyst for the Strecker Synthesis



Significance: The organometallic hollow sphere (OMHS) catalyst was prepared by self-supporting of $\text{Pd}(\text{OAc})_2$ 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 $1.50 \pm 0.15 \mu\text{m}$. 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.

SYNFACTS Contributors: Yasuhiro Uozumi, Yoichi M. A. Yamada
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