

triazoles

hydroamination

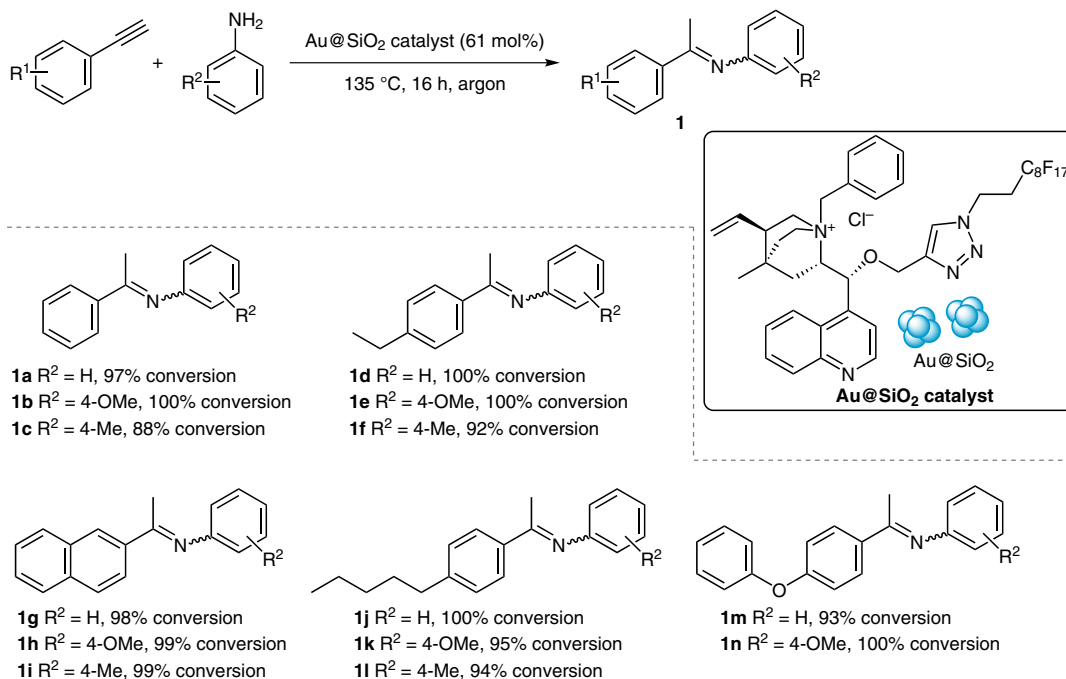
gold nanoparticles

heterogeneous
catalysis

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One-Pot Synthesis of Au@SiO₂ Catalysts: A Click Chemistry Approach
ACS Comb. Sci. **2014**, *16*, 513–517.

Hydroamination of Alkynes Using Amphiphiles-Based Au@SiO₂



Significance: The porous Au@SiO₂ catalyst was prepared from a gold precursor and a TEOS solution in the presence of cinchonidine-based triazole amphiphiles. The hydroamination of alkynes was carried out with Au@SiO₂ to give the corresponding imine products **1a–n** in up to 99% conversion.

Comment: The turnover number of Au@SiO₂ was 1604 for the formation of **1b**. The catalyst was characterized by cryo-TEM, XPS, UV/Vis, zeta potential, and ICP-OES analyses.

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