

Electronic Supplementary Information

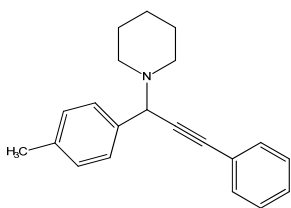
Efficient three-component coupling catalysed by mesoporous copper-aluminum based nanocomposites

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¹H-NMR spectra of selected examples

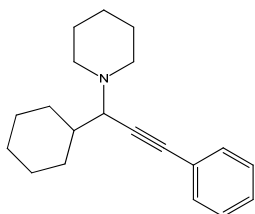
¹H-NMR spectra were recorded in CDCl₃ with TMS as an internal standard at ambient temperature on a Bruker NMR instrument operating at 300 MHz.

i. entry 2 of Table 1:



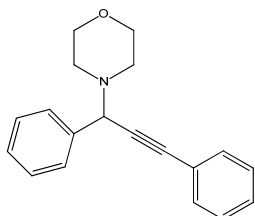
²⁰ N-[1-(4-Methylphenyl)-3-phenyl-2-propynyl]piperidine. δ : 7.50-7.45 (m, 2H), 7.35-7.25(m, 3H), 7.15-7.05 (m, 4H), 4.70 (s, 1H), 2.60-2.50 (m, 4H), 2.45 (s, 3H), 1.70-1.50 (m, 4H), 1.45-1.30 (m, 2H).

ii. entry 3 of Table 1:

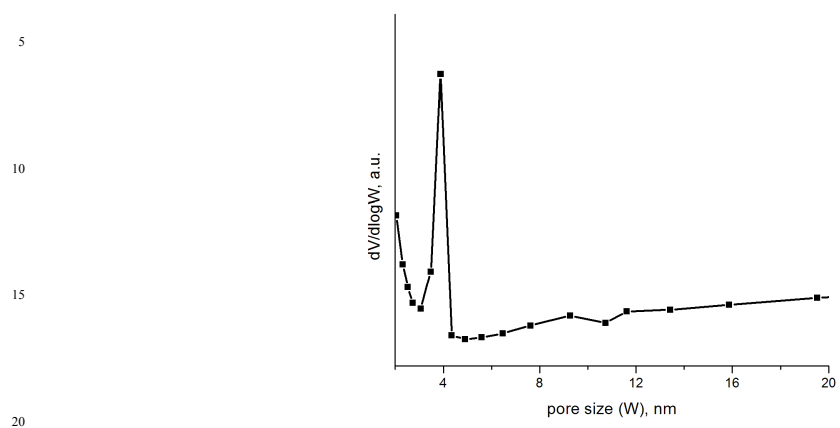


²⁵ N-(1-Cyclohexyl-3-phenyl-2-propynyl)-piperidine, δ = 7.47-7.35 (m, 3H), 7.30-7.20 (m, 4H), 3.05 (d, 1H), 2.70-2.50 (m, 2H), 2.5-2.3 (m, 2H), 2.2-2.0 (m, 2H), 1.80-1.40 (m, 6H), 1.35-0.9 (m, 7H).

iii. entry 7 of Table 1:



³⁵ 4-(1,3-Diphenyl-2-propynyl)-morpholine, δ = 7.65-7.55 (m, 2H), 7.55-7.40 (m, 3H), 7.40-7.20 (m, 5H), 4.75 (s, 1H), 3.80-3.60 (m, 4H), 2.70-2.50 (m, 4H).



BJH pore-size distribution of Cu/Al catalyst.