

Pd(II)-dppb and syngas catalyze regioselective hydroesterification of terminal alkynes under neutral conditions.

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Abstract

Pd(II) regioselectively catalyzes the hydroesterification of terminal alkynes under syngas forming α,β -unsatd. esters in excellent chem. yields under neutral conditions. A high selectivity for linear esters was obtained with a catalytic system that includes Pd(II), 1,4-bis(diphenylphosphino)butane (dppb), and CO/H₂ in CH₂Cl₂ as solvent. The control of the regioselectivity depends strongly upon the type of ligand, the solvent, and the use of the syngas mixt.