

PdCl₂(P(OPh)₃)₂ catalyzed coupling and carbonylative coupling of phenylacetylenes with aryl iodides in organic solvents and in ionic liquids.

Autorzy

V. Sans

Anna M. Trzeciak

S. Luis

Józef J. Ziółkowski

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Streszczenie

Efficient cross-coupling and carbonylative coupling of terminal alkynes with aryl iodides catalyzed by PdCl₂(P(O₃)₂) in the presence of NEt₃ in toluene and in ionic liquids is described. In imidazolium ionic liquids, [bmim]PF₆ or [mokt]PF₆ (bmim = 1-butyl-3-methyl imidazolium cation, mokt=1-methyl-3-octyl imidazolium cation) catalyst was recycled and used in four consecutive catalytic cycles with high activity. In the absence of aryl iodide the same catalytic system catalyzed head-to-tail dimerization of phenylacetylene to the 1,3-diphenyl enyne, trans-PhCCAC(Ph)CH₂; with a yield of 85%

Słowa kluczowe

Sonogashira coupling, carbonylative Sonogashira coupling, phenylacetylene dimerization, Palladium catalyst, ionic liquids

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<http://link.springer.com>