

Pd colloid-catalyzed methoxycarbonylation of iodobenzene in ionic liquids.Autorzy

Wojciech Wojtków

Anna M. Trzeciak

R. Choukroun

J. L. Pellegatta

Rok wydania

2004

Czasopismo

Journal of Molecular Catalysis A-Chemical

Numer woluminu

224

Strony

81-86

DOI

10.1016/j.molcata.2004.06.032

Kolekcja

Naukowa

Język

Angielski

Typ publikacji

Artykuł

Streszczenie

A Pd colloid prepared by reduction of the  $[Pd(\eta^3\text{-allyl})_2Cl]_2$  precursor with  $Vcp_2$  (vanadocene) in presence of polyvinylpyrrolidone (PVP) as a protecting polymer was found to be an active and stable catalyst of methoxycarbonylation of iodobenzene carried out in an ionic liquid (IL) medium of  $[bmim]X$  and/or  $[bumepey]X$  ( $bmim$  = 1-methyl-3-butyl imidazolium cation,  $bumepey$  = 1-butyl-4-methyl pyridinium cation,  $X = Cl, BF_4, PF_6$ ) or in the presence of ammonium salts of  $[R_3N]X$  type ( $R = ^nBu, Et, Me; X = Cl, Br, I$ ). The yield of benzoic acid methyl ester produced in methoxycarbonylation of iodobenzene in ionic liquids depends on their structure: those with the pyridinium cation are much more effective than those with the imidazolium one. At the optimal concentration of methanol, the yield of methoxycarbonylation reaction catalyzed by Pd colloid decreases in the order:  $[^nBu_4N]Br > [^nBu_4N]I > [^nBu_4N]Cl > [bumepey]PF_6 > [Et_4N]Br > [bumepey]Cl > [bumepey]BF_4 > [Et_4N]Cl$ .

Adres publiczny<https://doi.org/10.1016/j.molcata.2004.06.032>Strona internetowa wydawcy<http://www.elsevier.com>