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Authors: Samahe Sadjadi, Majid M. Heravi, Maryam Raja



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Combination of carbon nanotube and cyclodextrin nanosponge chemistry to develop a heterogeneous Pd-based catalyst for ligand and copper free C-C coupling reactions

Samahe Sadjadi^{*a}, Majid, M. Heravi^{*b}, Maryam Raja^b

^a Gas Conversion Department, Faculty of Petrochemicals, Iran Polymer and Petrochemicals Institute, PO Box 14975-112, Tehran, Iran. Tel.; +982148666; Fax; +982144787021-3; E-mail:

samahesadjadi@yahoo.com and s.sadjadi@ippi.ac.ir

^b Department of Chemistry, School of Science, Alzahra University, PO Box 1993891176, Vanak, Tehran, Iran. Tel.: +98 21 88044051; fax: +982188041344; E-mail:

mmh1331@yahoo.com and m.heravi@alzahra.ac.ir

Highlight

- A novel hybrid system composed of carbon nanotubes and cyclodextrin nanosponge have been prepared and used for immobilization of Pd nanoparticle.
- The synergism between carbon nanotubes and cyclodextrin nanosponge was confirmed.
- A novel procedure for ligand and copper-free Sonogashira and Heck reaction is developed.
- The catalyst was highly recyclable with negligible Pd leaching.

Abstract

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