

Title: Palladium catalysts deposited over novel siliceous supports

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## Abstract

Keywords: palladium; deposited catalysts; siliceous supports; C—C coupling reaction.

The aim of this work was to prepare a deposited palladium catalyst from Pd<sup>2+</sup> and twodimensional zeolite ITQ-2 bearing  $\equiv\text{SiCH}_2\text{CH}_2\text{CH}_2\text{NHCH}_2\text{CH}_2\text{NEt}_2$  groups at the surface. This catalys has been evaluated in the Heck reaction between *n*-butyl-acrylate and brombenzene to give *n*-butyl-cinnamate. Influence of the reaction temperature, the solvent, base and hydrate water on the progress of the Heck reaction was investigated. This work also deals with the possibility of recycling the catalyst and, due to its nature, with the quantity of leached palladium into the reaction mixture. Furthermore, the work describes differences in morphology between the fresh and a recycled catalyst.