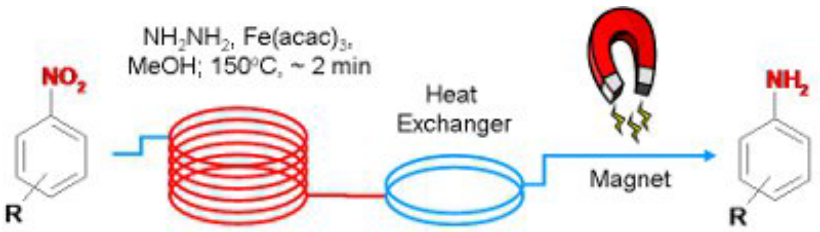
Publication 22: Efficient Reduction of Nitroarenes under Continuous Flow Conditions using an In-situ generated Nanoparticular Iron Oxide



An efficient continuous flow-through process for the reduction of nitroarenes in the presence of nanoparticular Fe2O3 is reported.

The nanoparticles were conveniently produced in-situ using soluble Fe(acac)3 in the presence of hydrazine as the reducing agent and remain in solution throughout. After product isolation, aggregation of the nanoparticles occurs facilitating their removal using a magnet.

Notably multi-gram quantities of compounds could be readily processed.

D. Cantillo, M. Baghbanzadeh, C. O. Kappe, Angew Chemie Int Ed., 2012 DOI: 10.1002/anie.201205792