

Ramakrishna, T.; Jayaraman, N., 2004, "Synthesis and catalytic activities of Pd^{II}-phosphine complexes modified poly(ether imine) dendrimers", *Tetrahedron*, 60, 10325 – 10334.

In this Article, we describe synthesis and studies of the catalytic activities of a series of poly(ether imine) dendrimers modified with alkyl diphenylphosphine-PdII complexes. In particular, we describe the incorporation of a new catalytically active ligand, namely, alkyldiphenylphosphine, at the peripheries of poly(ether imine) dendrimers. A three-step sequence for modifying the peripheries of dendrimers with the above ligand, followed by their metal complexation with PdII, was accomplished efficiently. In terms of catalytic efficacies of these new organometallic dendritic catalysts, we observe that catalytic efficacies, in the C-C bond-forming Heck coupling reaction, increase quite considerably for higher generation dendritic catalysts, when compared to the constituent monomeric or dendritic catalysts.