

Bagul, R. S.; Jayaraman, N. 2014, "Multivalent dendritic catalysts in organometallic catalysis", *Inorg. Chim. Acta*, 409, 34 – 52.

The Review article is focused to present advancement in dendritic organometallic catalysis, specifically on dendritic catalysts having the catalytic moieties at the peripheries of dendrimers. Sustained studies over last couple of decades have firmly established the importance of interfacing dendrimer structural principles in organometallic catalysis. In the course of the studies, the catalytic effect of dendritic display of catalytic moieties has been encountered, largely as a positive dendritic effect, although negative or only marginal improvement in catalysis, in comparison to the monomer catalysts, have also been reported. This Review article categorizes the discussion along the lines of the type of dendritic effect and attempts to provide the rationale ascribed to the observed dendritic effect, from a number of reports in recent years. Multivalent dendritic catalysts, wherein a given dendrimer generation is used to prepare a number of catalysts, have been discussed in detail, in order to identify the possible origin of dendritic effects in organometallic catalysis, mediated by dendritic catalysts.