

Jayamurugan, G.; Umesh, C. P.; Jayaraman, N., 2008, "Inherent photoluminescence properties of poly(propyl ether imine) dendrimers", *Org. Lett.*, 10, 9 – 12.

This Letter presents a study of the anomalous fluorescence emerging from poly(propyl ether imine) dendrimers. Several generations of this class of dendrimers possess amine as the branching functionality, ether as the linker functionality, with interconnecting propyl groups between these functionalities. The observation of anomalous fluorescence is established through a variety of studies, including concentration-, temperature- and solvent- and pH-dependence. A life-time measurement was secured to identify the species responsible for the emission. Further, an anion effect on the fluorescence of the dendrimers was studied and few anions were found to be efficient quenchers of the fluorescence. Fluorescence emission from non-functionalized dendrimers is not understood fully so far, yet the presence of the phenomenon in dendrimers has great potential for exploitation in a variety of studies, and thus warrants a rapid disclosure of the results.