Kumar, P.; Rao, D. S. S.; Prasad, S. K.; Jayaraman, N. 2016, “In-plane modulated smectic Ã vs smectic ‘A’ lamellar structures in poly(ethyl or propyl ether imine) dendrimers”, *Polymer*, *86*, 98 – 104.

Incorporation of dendritic structures to liquid crystals occupy a prime importance in advancing studies of macromolecular liquid crystals. The anticipation is that new macromolecular structures can be constructed, rather facile with the aid of molecularly tunable dendrimers. A number of studies have thus emerged during last one decade, by primarily utilizing few dendrimer types, namely, poly(amido amine), poly(propylene imine) and carbosilane. More importantly, the studies have so far essentially occupied utilizing dendrimers of different generations. A difficult query is the ability to identify as to how the macromolecular core structures can be tuned when the number of branch points or generations remains identical within the dendrimer. It is with this purpose, we studied two dendrimer pairs that contain identical number of mesogen inducing moieties at their peripheries, yet the dendrimer constitution is varied using ethyl and n-propyl linkers. As of date, such types of dendrimer pairs are un-known in literature. Subsequent to chemical synthesis and physical characterization, mesomorphic structural studies show that the structures formed by these mesogens vary greatly depending on the linker constituting the dendrimer scaffold. In addition to observing the most common lamellar arrangement of the molecules, we observe an in-plane modulated lamellar structure. The study thus brings out an important observation that dendrimer core controls the mesophase structures on its own merit. The study is a departure to all those known currently where a post-modification of a dendrimer scaffold is conducted, in order to evaluate changes in the mesophase structures.