

ON DEGREE BASED TOPOLOGICAL INDICES OF SELF-ASSEMBLED TETRAPHENYLETHYLENE AND TERPYRIDINE ROSETTES

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Abstract

A technique is described to compute topological indices for supramolecular rosettes of tetraphenylethylene (TPE) and terpyridine (TPY) ligands with its applications on physicochemical and biological properties. This technique, we have applied to a self assembled TPE and TPY supramolecular graphs which is obtained in the form of rosette cycles. Also these type of rosettes graph finds significant applications in electrical sensors, light emitting diodes, bioimaging and photoelectric devices etc. As regarded to the next generation sensing applications with a typical induced aggregative emission behaviour, tetraphenylethylene can be utilised in constructing fluorescent probes. For this supramolecular systems we have done a work by computing some topological indices such as the variants of Zagreb index, Randić index, Sum Connectivity index, ABC index and Harmonic index.

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