

عنوان مقاله:

M-Polynomials and Topological Indices of Porphyrin-Cored Dendrimers

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خلاصه مقاله:

Porphyrin-cored dendrimers of the G_n generation with $n \geq 1$ are of four types PCD-I, PCD-II, PCD-III, and PCD-IV. In this article, several necessary chemical structures of porphyrin-cored dendrimers are considered. Also, their M-Polynomials are calculated using the partition of the edges. By applying these M-polynomials to porphyrin-cored dendrimers, some important topological indices are computed. Finally, the results are taken from Maple ۲۰۲۲ to see the dependency concerning the involved structural parameters. Our results will help researchers to observe the strong correlation between the physicochemical properties of dendrimers and topological indices in the pharmaceutical industry and drug delivery.

کلمات کلیدی:

Topological index Randić index Zagreb index Molecular structure M, Polynomial

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