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Cyclic graphs with degenerate sequences: A study of similarity[Diudea, M.V.](#)

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Abstract

Similarity of two sets of cycle-containing molecular graphs, spiro-alkanes and full Hamiltonian detour cubic cages, is discussed in terms of inter- and intra-molecular similarity. Molecular description is given as sequences of some well known topological sequences: Distance Degree Sequence DDS, Detour Degree Sequence Δ DS, All Path Sequence APS, Shortest Path Sequence SPS, Longest Path Sequence LPS, Terminal Paths Sequence TPS and Cycle Sequence, CyS and topological indices as well. The discussed structures show degenerate above sequences. Most of the topological indices constructed on these graphs are degenerated. These indicate the considered graphs are highly related. Similarity measure is achieved on the above sequences. Some nice degenerate rearrangements of selected structures are also illustrated.

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Volume 47, Issue 10-11, October 2002, Pages 1101-1112

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