

From Small Polyradical Molecules to Infinitely Large π -Electronic Networks – Strongly Subspectral molecular Systems

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Series of polyradical systems having a preponderance of common eigenvalues (strongly subspectral) are identified, and their structural relationships studied. A framework for the analysis and molecular modeling of graphite-related polymers is provided by an infinite two-dimensional mapping. Some analytical expressions are derived. Aryl polyradical dendrimers form numerous strongly subspectral sets. Potential conductive/ferromagnetic properties are indicated. Collections of subspectral structures (molecular graphs) and their eigenvalues are tabulated for the first time.

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