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*Molecular Graphs with Analogous Conducting Connections*

In the graph-theoretical Source and Sink Potential model, a molecule is either an insulator or a conductor for electrons with energy zero. Of particular interest are two classes of graphs with analogous vertex pairs, i.e., the same behaviour for any two-vertex connection. These are *uniform-core* (insulating for all two-vertex connections) and *nuciferous* graphs, which conduct for all two-vertex connections. A graph  $G$  in the first class reaches the minimum possible nullity when any two distinct connecting vertices are deleted. In the second class, the nullity reaches one, the maximum possible, when any vertex is deleted.