

Resonance Topology and Related Aspects of Fluoranthenoid / Fluorenoide and Indacenoid Hydrocarbon Radicals

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Data on the number of resonance structures of free radical polycyclic conjugated hydrocarbons are tabulated and studied. The first examples of fluoranthenoid / fluorenoide and indacenoid polyradical systems are presented. Some comparative generalizations between benzenoid free radicals and fluoranthenoid / fluorenoide and indacenoid polyradical systems are formulated. For example, there is a tendency of these latter even-carbon nonalternant hydrocarbons to have fewer radical isomers compared to the former alternant hydrocarbons. Examples where Fowler's leapfrog algorithm identifies the more stable fluorenoide anion and indacenoid dianion isomer are presented.

Key words: Resonance Topology; Hydrocarbon Radicals; Structure Count.