

# Kekulé Structures in Fluoranthenes

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Fluoranthenes are polycyclic conjugated molecules consisting of two benzenoid fragments, connected by two carbon–carbon bonds so as to form a five-membered ring. Fluoranthenes possessing Kekulé structures are classified into three types, depending on the nature of the two carbon–carbon bonds connecting the two benzenoid fragments. Either both these bonds are essentially single (i. e., single in all Kekulé structures), or both are essentially double (i. e., double in all Kekulé structures), or one is essentially single and the other is essentially double. All Kekuléan fluoranthenes have equal number of bonding and antibonding molecular orbitals (MO), and no non-bonding MO.

*Key words:* Kekulé Structures; Fluoranthenes.