A polycycloalkane is a cycloalkane whose molecule contains more than two rings. The number of rings in a cycloalkane is defined as the minimum number of bonds that must be broken in order to convert the molecule into an open-chain fragment.

eg:

The minimum number of bonds that must be broken to convert 1 into an open-chain structure is three, meaning the number of rings in 1 is three, 1, therefore, is a polycycloalkane.

Based on the number of rings present, polycycloalkanes can be further classified as tricycloalkanes, tetracycloalkanes, pentacycloalkanes, and so on. Thus, 1 is a tricycloalkane.

see also monocycloalkane, bicycloalkane

Contributors

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