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Editorial

Editorial Highlights on Alkanes and Cycloalkanes

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EDITORIAL

Most reactions of organic compounds occur at or adjacent to a functional group. Such compounds are necessarily hydrocarbons, made from chains and rings of carbon atoms bonded to a menu of hydrogen atoms (all carbons are sp3 hybridized).

The formulas for hydrocarbons are CnH(2n+2-2r), where n is that the number of carbon atoms and r is that the number of rings. Hydrocarbons of this type are classified as alkanes or cycloalkanes Alkanes and cycloalkanes are termed saturated they're also members of a bigger class of compounds spoken as aliphatic. Consequently, common names can only be remembered by repeated use, in much the identical way we use nicknames. Hydrocarbons are alkanes or cycloalkanes, reckoning on whether the carbon atoms of the molecule are arranged only enchained or also in rings. Cycloalkanes are alkanes with carbon atoms attached within the style of a closed ring. Functional groups: An atom or groups of atoms that substitute for an atom in a chemical compound, giving the compound unique chemical properties and determining its reactivity.

Alkenes and Cycloalkanes have the identical general formula, CnH2n. Therefore, the final formula doesn't identify the structure as an alkene nor an cycloalkane. To further become problematic there are alkenes which contain over one covalent bond. Those with two double bonds have the formula, CnH2n-2.

Alkanes:

A common "ane" suffix identifies these compounds as alkanes. The names methane through decane should be memorized, since they constitute the basis of the many IUPAC names. Fortunately, common numerical prefixes are utilized in naming chains of 5 or more carbon atoms.

Cycloalkanes:

Cycloalkanes have one or more rings of carbon atoms. The best samples of this class encompass one, unsubstituted carbon ring, and these form a homologous series just like the unbranched alkanes. Hence the overall formula for a cycloalkane composed of n carbons is CnH_2n.

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