

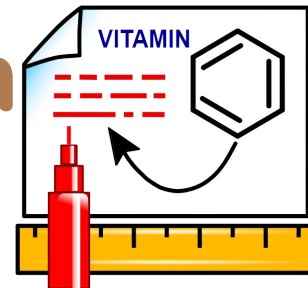
Explore ACD/ChemSketch

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About the ACD/ChemSketch Software



It is an open source software developed by American Chemistry Development Lab which offers a package for drawing molecules (simple or complex), chemical reactions or molecular models to display in 2D and 3D-structures.

Utility of ACD/ChemSketch

-It aids the chemistry teachers at high school/UG or PG level in explaining the students the structure of chemical bonds, the nature of functional groups, and the reaction mechanism.

Utility of ACD/ChemSketch for Teachers

- The confidence with this software can be a valid tool in the teaching-learning of molecule structures and their nomenclature, in particular when organic molecules are considered.
- It is rich of options and suitable to correctly draw even complex molecules, in 2D as in 3D.

Access to ACD/ChemSketch

NOTE: ChemSketch is compatible with Windows 64-bit only and its free download is not available for iOS

It can be downloaded from the following link for personal or academic institution use:

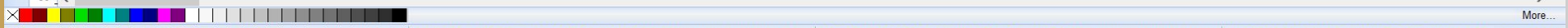
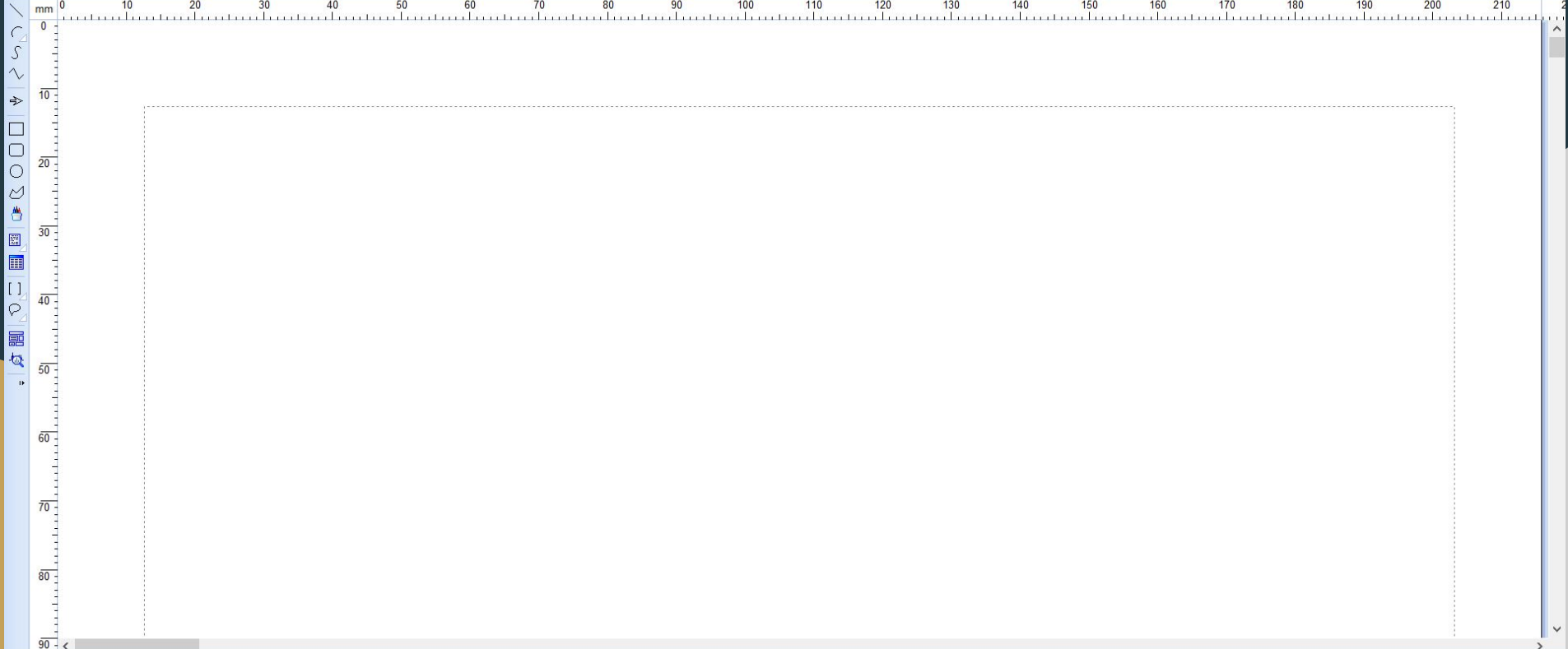
Access to ACD/ChemSketch

<https://www.acdlabs.com/resources/freeware/chemsketch/>
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https://www.acdlabs.com/download/technotes/50/draw_db/chemsketch_linux.pdf

The link for related pdf describing the steps for using ChemSketch is

https://www.acdlabs.com/download/docs/chemsk_t12.pdf



Features of ACD/ChemSketch

ChemSketch is easy to understand and use.

The two modes are available in ACD/ChemSketch, namely Structure and Draw.

Structure mode enables you to draw chemical structures and calculating their properties.

Draw Mode enables for text and graphics processing.

 ACD/3D Viewer (Freeware): ChemSketch W

File Edit Pages Tools Object Templat

Structure

Draw



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Features of ACD/ChemSketch

It has the ability to:

- draw molecules in 2D
- render a 3D view of the drawn structure. It can be used to produce structures of organic molecules in the various 3D forms- space filling models, ball and stick model, wireframe model, disk model etc.
- generate IUPAC systematic names for molecules of up to 50 atoms and 3 ring structures
- mass spectra fragment calculator of the drawn molecules
- physicochemical and chemical properties can be identified

Features of ACD/ChemSketch

- The software keeps track of the valency of the atoms and alerts you if this is exceeded by crossing out the atom. By repeatedly clicking on a bond, the saturation will cycle from single bond to double bond to triple bond.
- The program offers some advanced feature that allows the molecule to rotate and apply color to improve visualization.

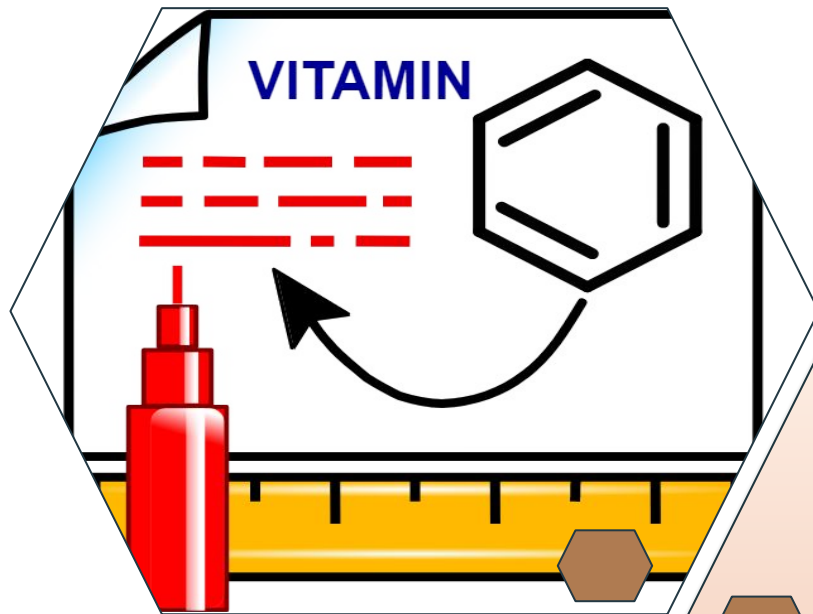
Features of ACD/ChemSketch

-It allows the feature of adding functional groups and series of compounds with the possibility of adding text and modifying the structures or use other tools to optimize production created by the software.

-The template window has a folder called lab kit which contains 7 pages of diagrams of equipment.

Features of ACD/ChemSketch

- Inbuilt BiorArt Template of several complex structures e.g. polymers, proteins, ring structures allowing to add these structure as unit
- It offers different arrows, including arrows suitable for diff equilibriums. We can add reagent or conditions below or above the arrow.



**Starting with
ACD/
ChemSketch**

Usage and Applications

The structures can be copied and pasted to any application such as MS Office in the form of image

The software notifies the users when the new version is available on the website for download

Usage and Applications

Templates are easily available for different compounds to automatically generate structures

Enables the teachers to demonstrate the view of chemical structures in an easy way to their students