

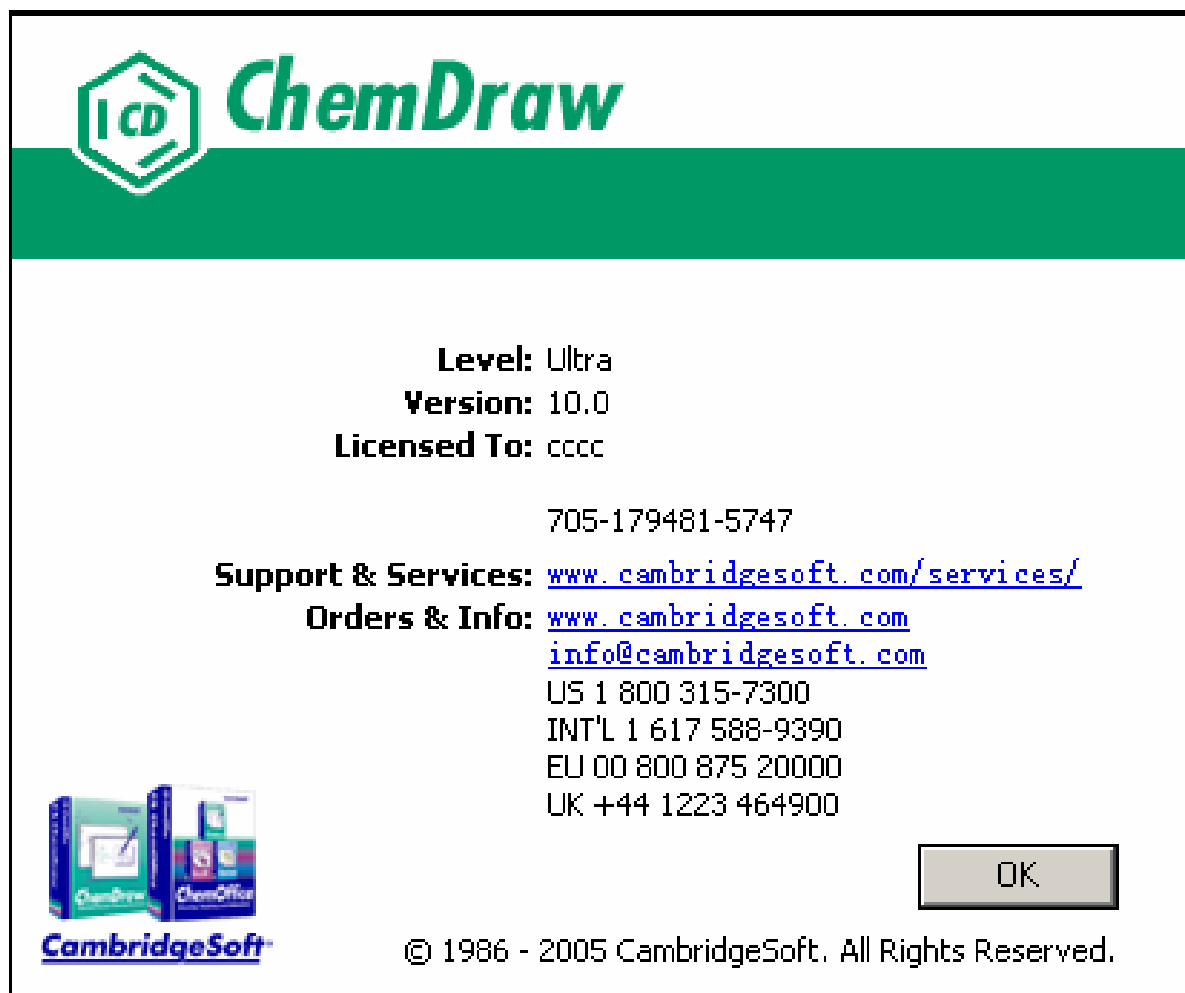


ChemDraw V10.0 使用简介

CambridgeSoft 出品

<http://www.CambridgeSoft.com>

第一部分 ChemDraw V10.0 简介



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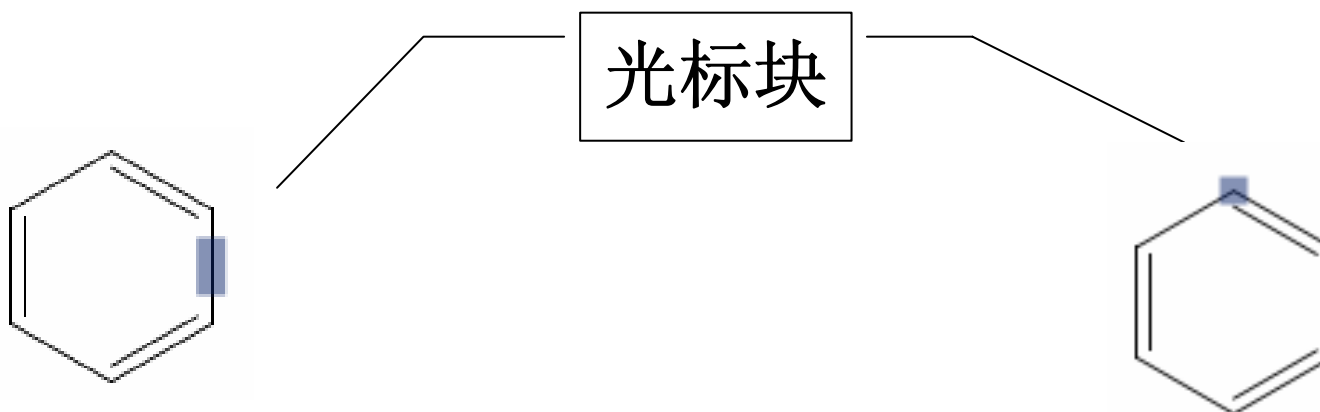
ChemDraw® is a **desktop application that enables professional scientists, science students, and scientific authors to communicate chemical structures. It is designed to work according to conventions that we have found to be most intuitive for such users. Our goal has been to make ChemDraw as easy to use as possible while providing superior drawing quality.**

BioDraw® is a **desktop application for drawing and presenting biological pathways. Common pathway elements (membranes, DNA, enzymes, receptors, etc.) are built in, and other elements may be imported. The pathways you create with BioDraw can be exported for use in presentations, grant proposals, and publications.**

第一部分 ChemDraw V10.0 简介

常用术语

点位：移动鼠标直到鼠标的光标放到所要进行操作的位置，如果选择的位置在图形结构中的键、原子、线等的上面，一般出现黑方块，称之为光标块，选择块或操作块。



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选择：用鼠标的光标选中某种选择，使对象产生光标。选择对象并不意味着动作，只是标记要操作的对象和点位；

单击：快速按下鼠标键(左或右键)，然后快速抬起；

双击：快速操作两次单击；

拖动：由三部分动作组成——按下鼠标左键选择对象，移动鼠标，将被选的对象移动到指定位置后抬起鼠标；

第一部分 ChemDraw V10.0 简介

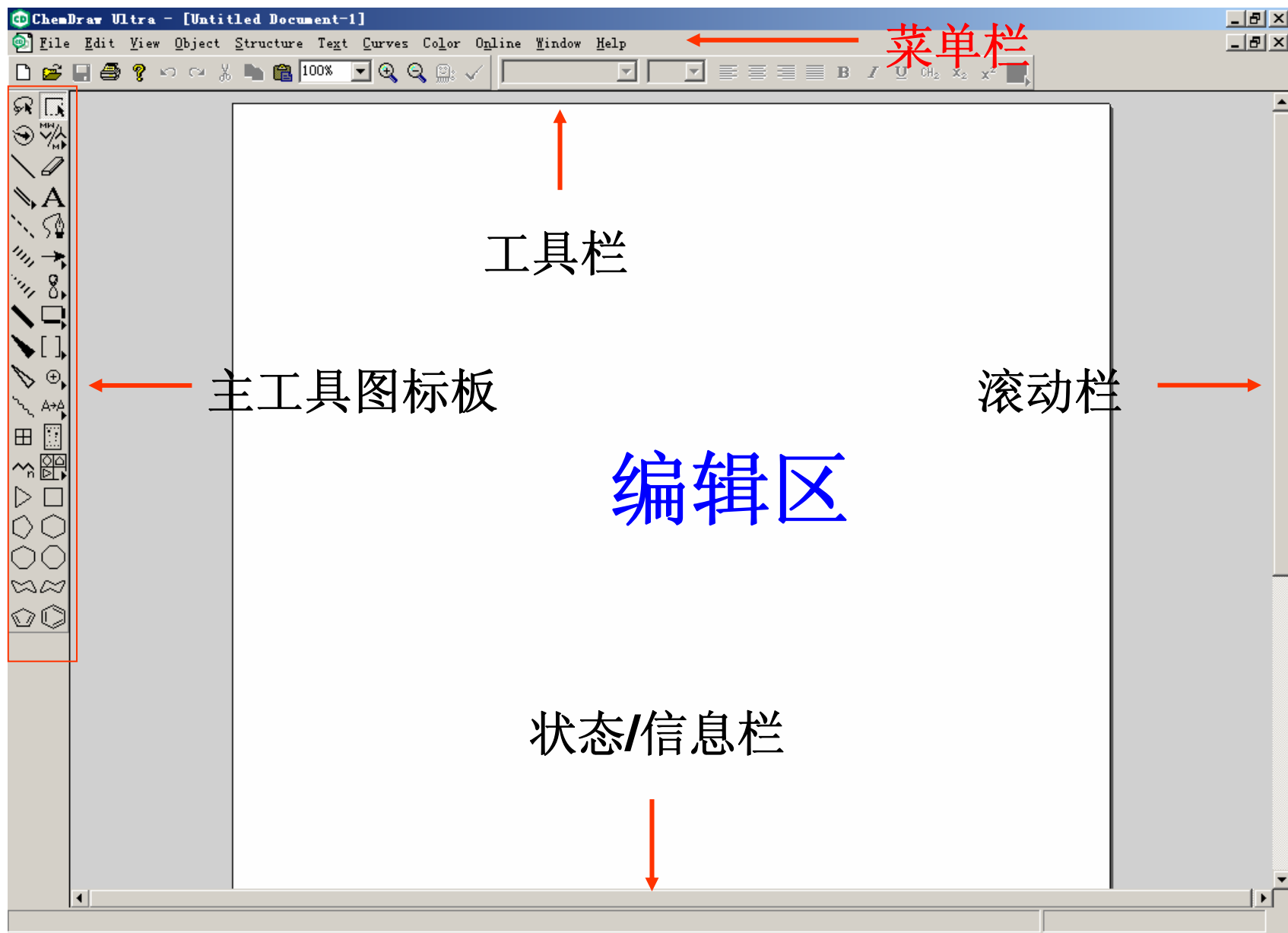
“键+单击”：按下特殊的键和单击鼠标键同时进行。

如，“**Shift**+单击”意思是按下”**Shift**”键和单击鼠标键；

“键+拖动”：按下特殊的键和鼠标键，移动鼠标。

如，“**Shift**+拖动”意思是按下”**Shift**”键和拖动鼠标光标。


















第一部分 ChemDraw V10.0 简介



第一部分 ChemDraw V10.0 简介

主工具图标板

ChemDraw 7.0 版本



















套索		蓬罩(选取框)
实键		橡皮
双键		文本
虚键		笔
切割键		箭头
切割楔键		轨道
黑体键		绘图元素
黑体楔键		基元
空心楔键		化学符号
波浪键		弧形
表格		质询工具
长链		模板
环丙烷环		环丁烷环
环戊烷环		环己烷环
环庚烷环		环辛烷环
环己烷椅式		环己烷椅式
环戊二烯环		苯环

第一部分 ChemDraw V10.0 简介

主工具图标板

红色为ChemDraw V8.0
及以上版本新增工具

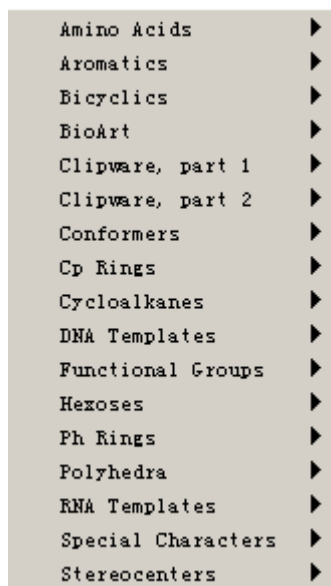
绘图工具与弧形工具合并
模版分类由17增加到20

套索		蓬罩(选取框)
结构透视		质谱碎片
实键		橡皮
双键		文本
虚键		笔
切割键		箭头
切割楔键		轨道
黑体键		绘图元素
黑体楔键		基元
空心楔键		化学符号
波浪键		质询工具
表格		TLC工具
长链		模板
环丙烷环		环丁烷环
环戊烷环		环己烷环
环庚烷环		环辛烷环
环己烷椅式		环己烷椅式
环戊二烯环		苯环

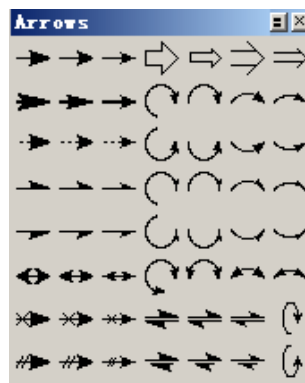
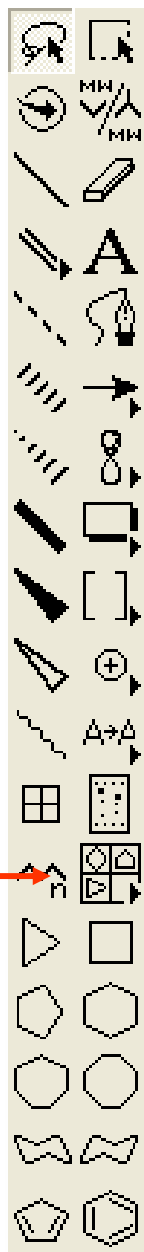
第一部分 ChemDraw V10.0 简介



键工具



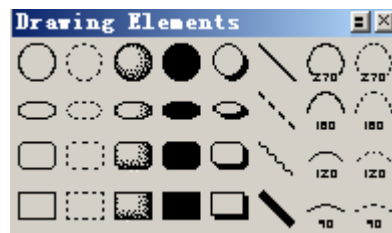
模板工具



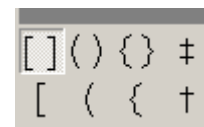
箭头工具



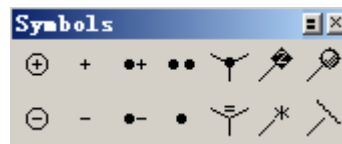
轨道工具



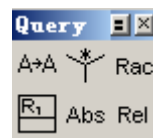
画图工具



基元工具



符号工具



反应查询

第一部分 ChemDraw V10.0 简介

Amino Acid Side Chains ▶

Amino Acids ▶

Aromatics ▶

Bicyclics ▶

BioArt ▶

Clipware, part 1 ▶

Clipware, part 2 ▶

Conformers ▶

Cp Rings ▶

Cycloalkanes ▶

DNA Templates ▶

Functional Groups ▶

Hexoses ▶

Nanotubes ▶

Ph Rings ▶

Polyhedra ▶

Polypeptides ▶

RNA Templates ▶

Stereocenters ▶

Supramolecules ▶

模板工具

20类

Amino Acid Side Chains

**AMINO
ACIDS**

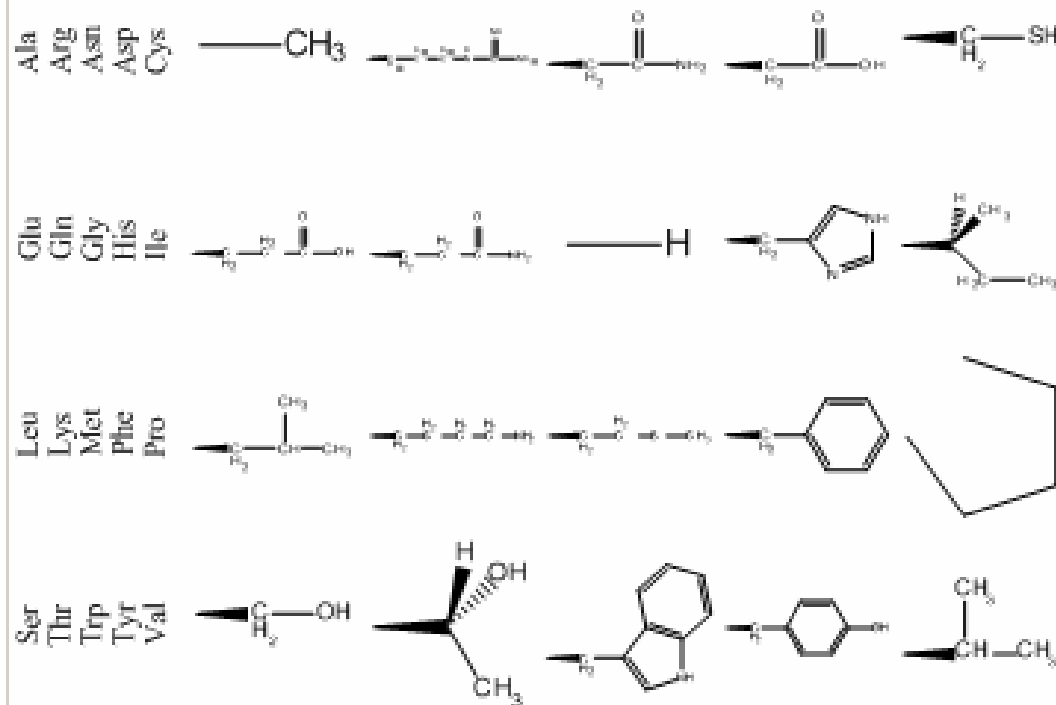
Ala
Glu
Leu
Ser

Arg
Gln
Lys
Thr

Asn
Gly
Met
Trp

Asp
His
Phe
Tyr

Cys
Ile
Pro
Val



氨基酸支链模板工具

第一部分 ChemDraw V10.0 简介

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Nanotubes ▶

Ph Rings ▶

Polyhedra ▶

Polypeptides ▶

RNA Templates ▶

Stereocenters ▶

Supramolecules ▶

Amino Acids

AMINO ACIDS

Ala
Glu
Leu
Ser

Arg
Gln
Lys
Thr

Asn
Gly
Met
Trp

Asp
His
Phe
Tyr

Cys
Ile
Pro
Val

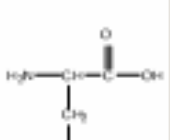
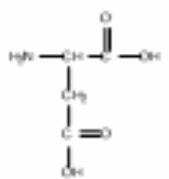
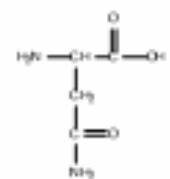
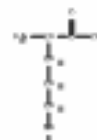
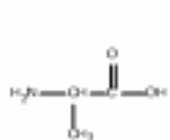
Ala

Arg

Asn

Asp

Cys



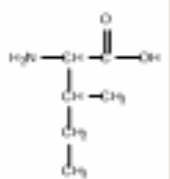
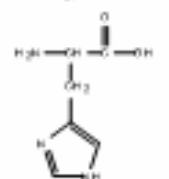
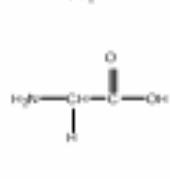
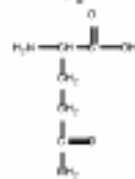
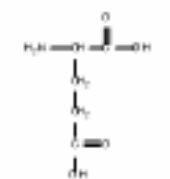
Glu

Gln

Gly

His

Ile



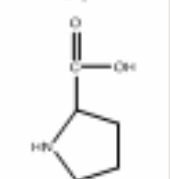
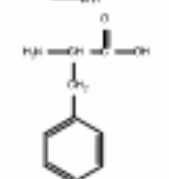
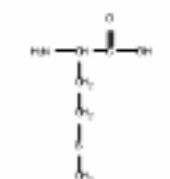
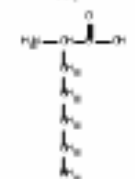
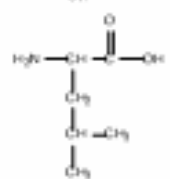
Leu

Lys

Met

Phe

Pro



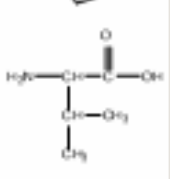
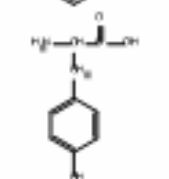
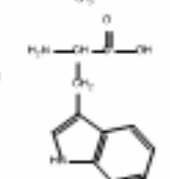
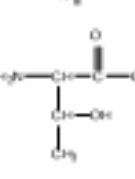
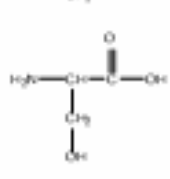
Ser

Thr

Trp

Tyr

Val



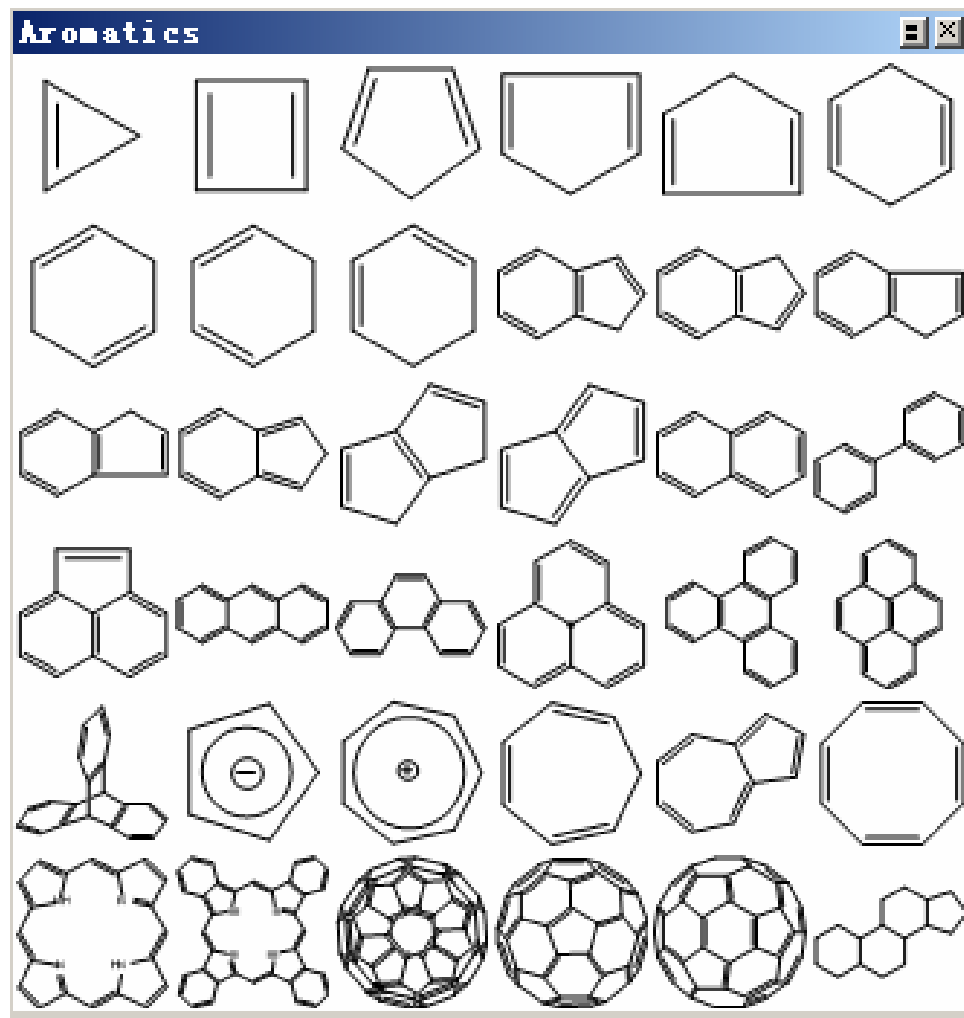
模板工具

氨基酸模板工具

第一部分 ChemDraw V10.0 简介

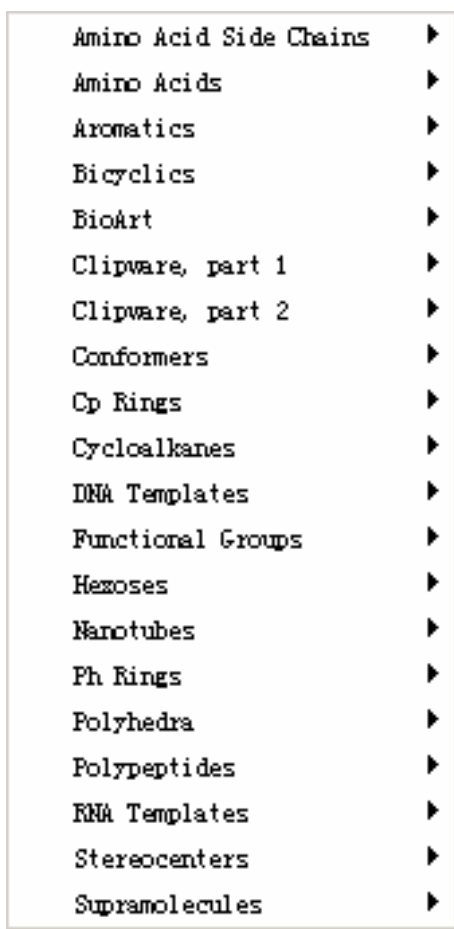
Amino Acid Side Chains ▶
Amino Acids ▶
Aromatics ▶ ←
Bicyclics ▶
BioArt ▶
Clipware, part 1 ▶
Clipware, part 2 ▶
Conformers ▶
Cp Rings ▶
Cycloalkanes ▶
DNA Templates ▶
Functional Groups ▶
Hexoses ▶
Nanotubes ▶
Ph Rings ▶
Polyhedra ▶
Polypeptides ▶
RNA Templates ▶
Stereocenters ▶
Supramolecules ▶

模板工具

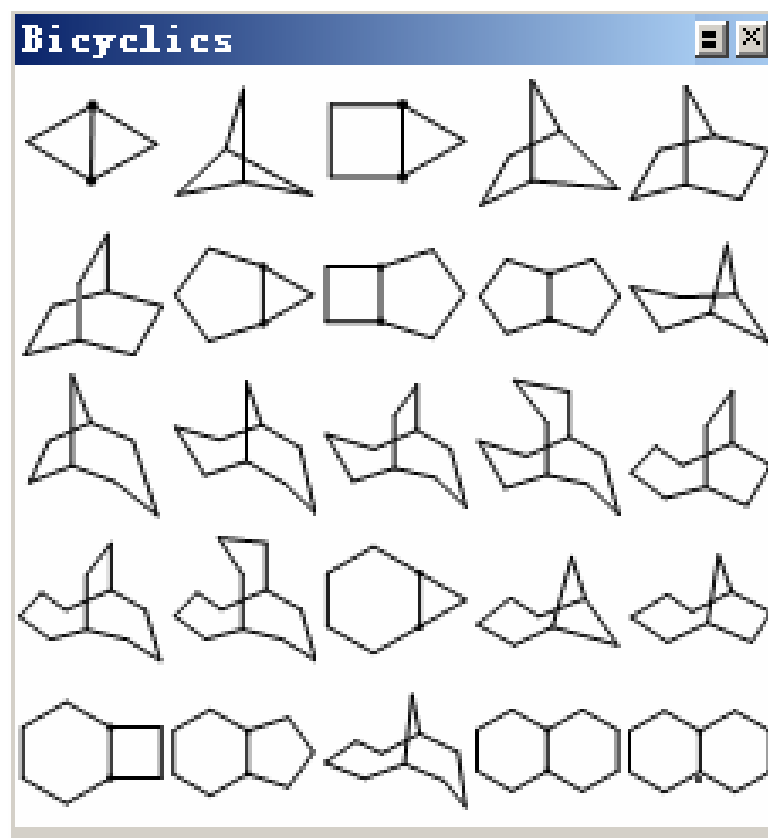


芳香化合物模板工具

第一部分 ChemDraw V10.0 简介



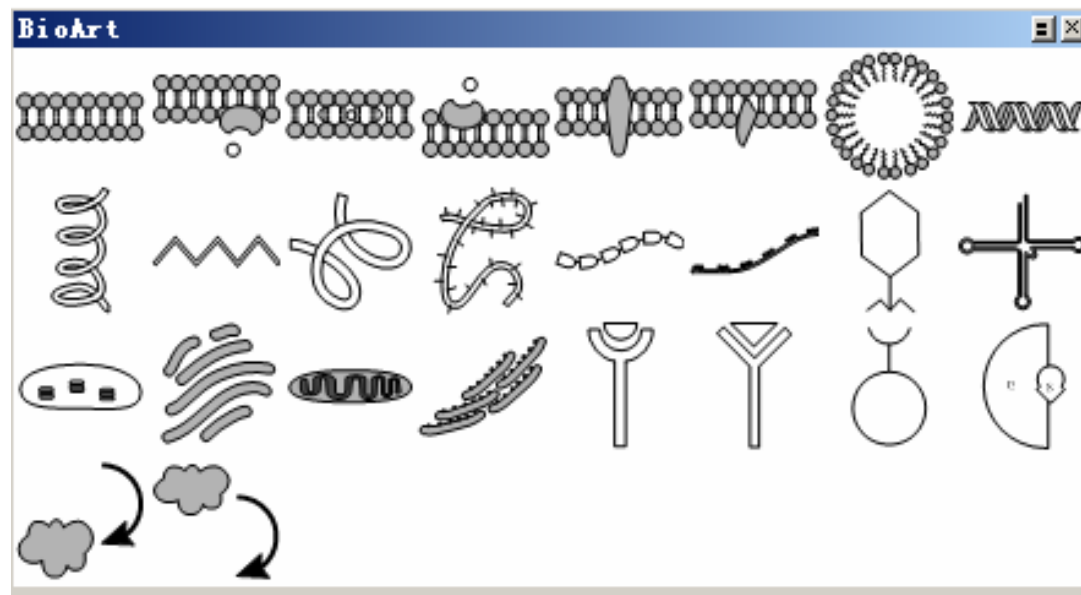
模板工具



双环模板工具

第一部分 ChemDraw V10.0 简介

- Amino Acid Side Chains ▶
- Amino Acids ▶
- Aromatics ▶
- Bicyclics ▶
- BioArt ▶
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- Clipware, part 2 ▶
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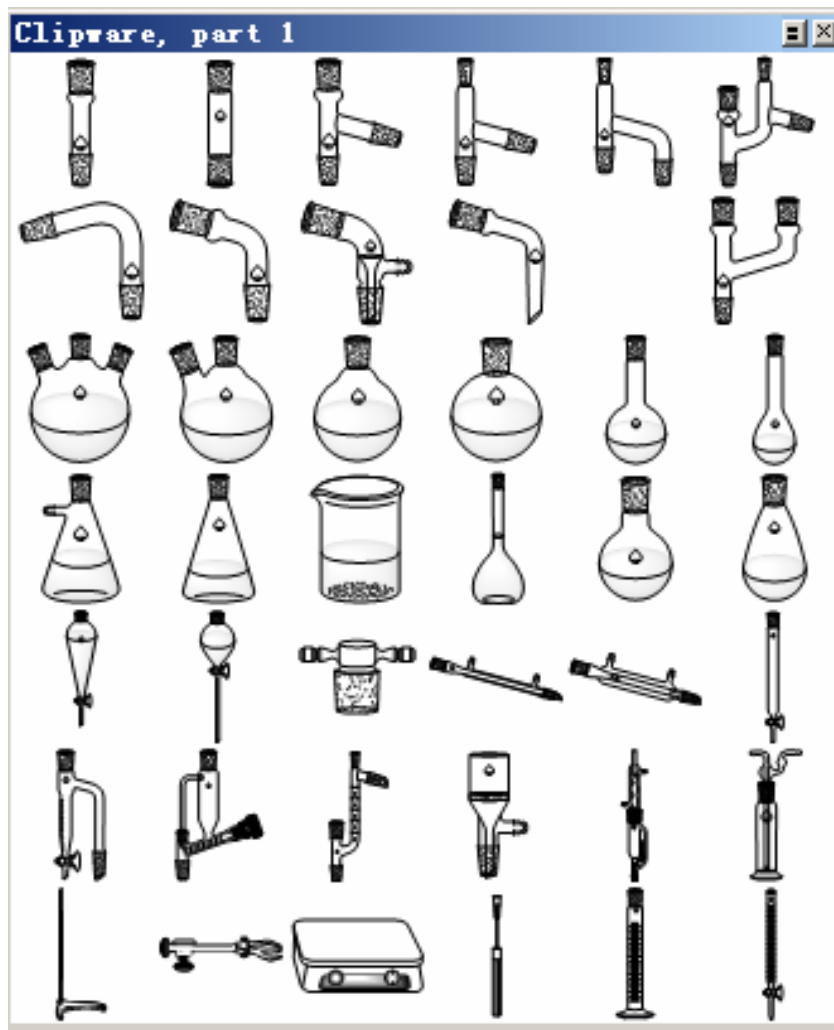
生物模板工具

模板工具

第一部分 ChemDraw V10.0 简介

- Amino Acid Side Chains ▶
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- Aromatics ▶
- Bicyclics ▶
- BioArt ▶
- Clipware, part 1 ▶ ←
- Clipware, part 2 ▶
- Conformers ▶
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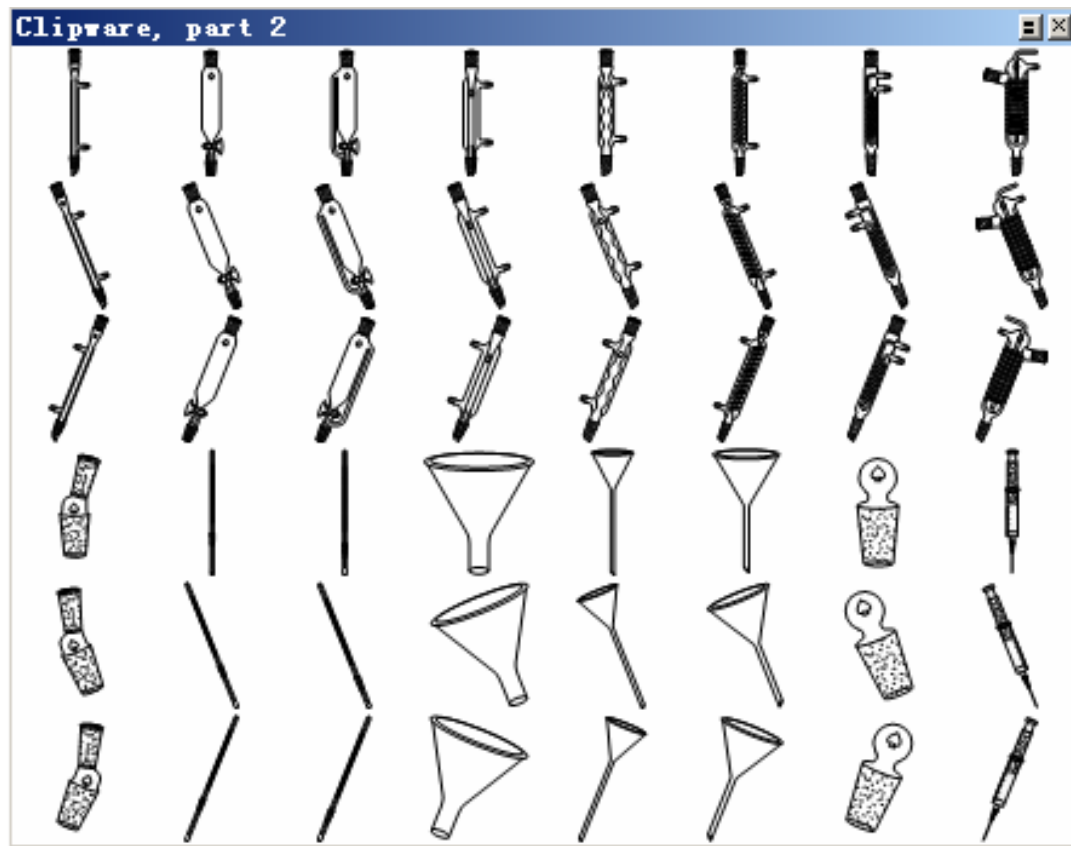
模板工具



实验仪器模板工具(I)

第一部分 ChemDraw V10.0 简介

Amino Acid Side Chains ▶
Amino Acids ▶
Aromatics ▶
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Clipware, part 2 ▶
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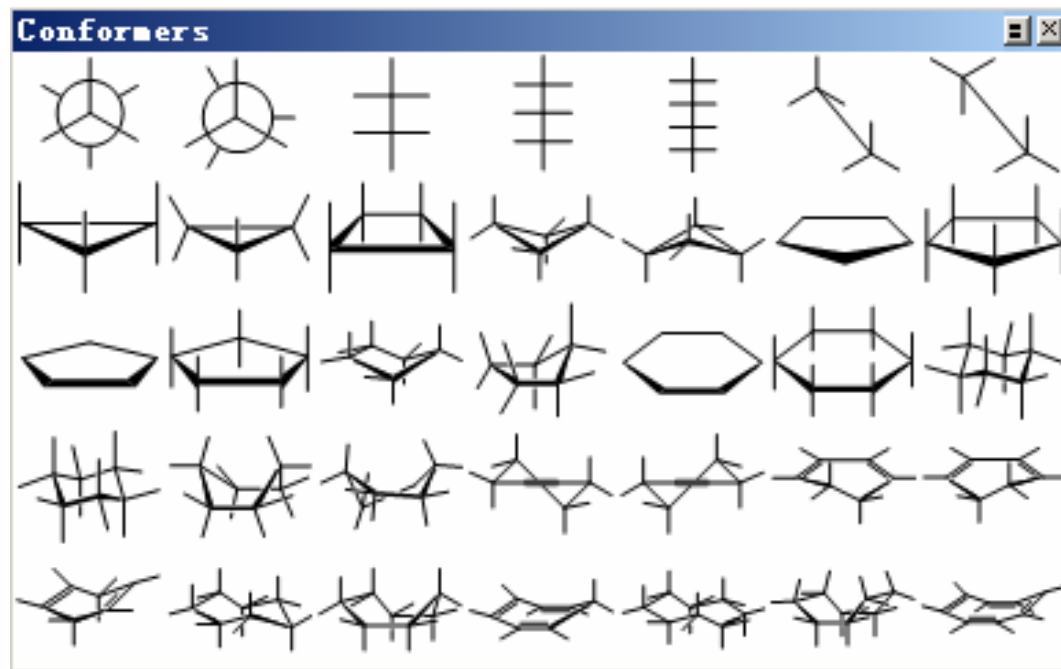


模板工具

实验仪器模板工具(II)

第一部分 ChemDraw V10.0 简介

- Amino Acid Side Chains ▶
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- Bicyclics ▶
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- Clipware, part 1 ▶
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- Supramolecules ▶

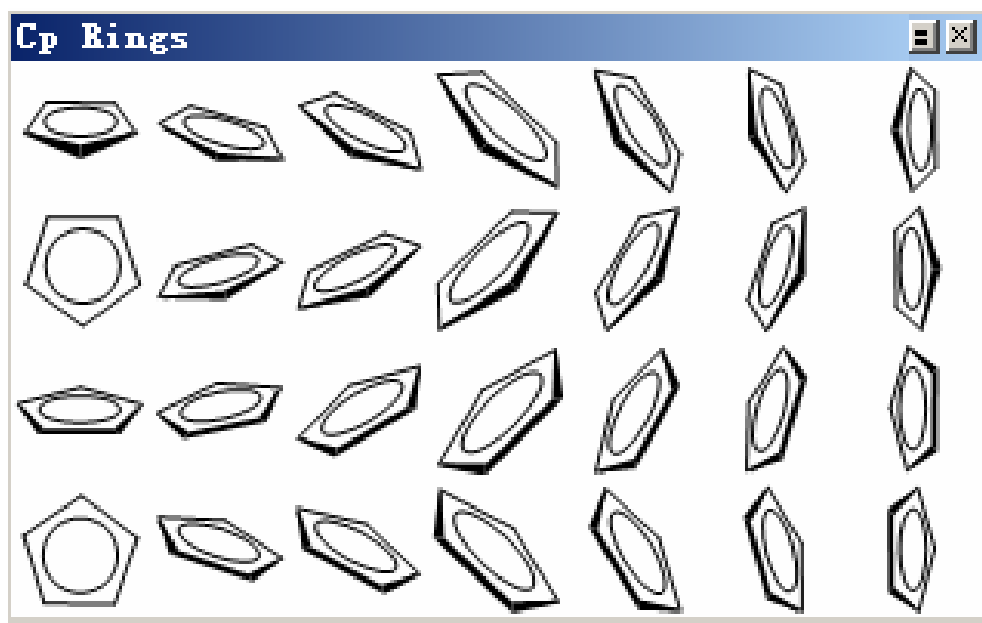


模板工具

构象异构体模板工具

第一部分 ChemDraw V10.0 简介

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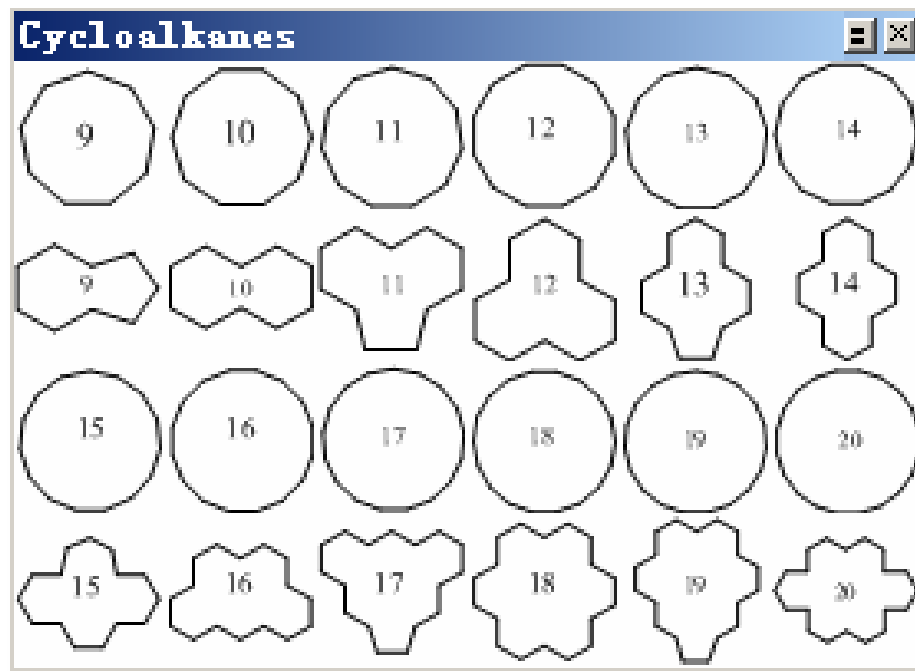


模板工具

环戊二烯模板工具

第一部分 ChemDraw V10.0 简介

- Amino Acid Side Chains ▶
- Amino Acids ▶
- Aromatics ▶
- Bicyclics ▶
- BioArt ▶
- Clipware, part 1 ▶
- Clipware, part 2 ▶
- Conformers ▶
- Cp Rings ▶
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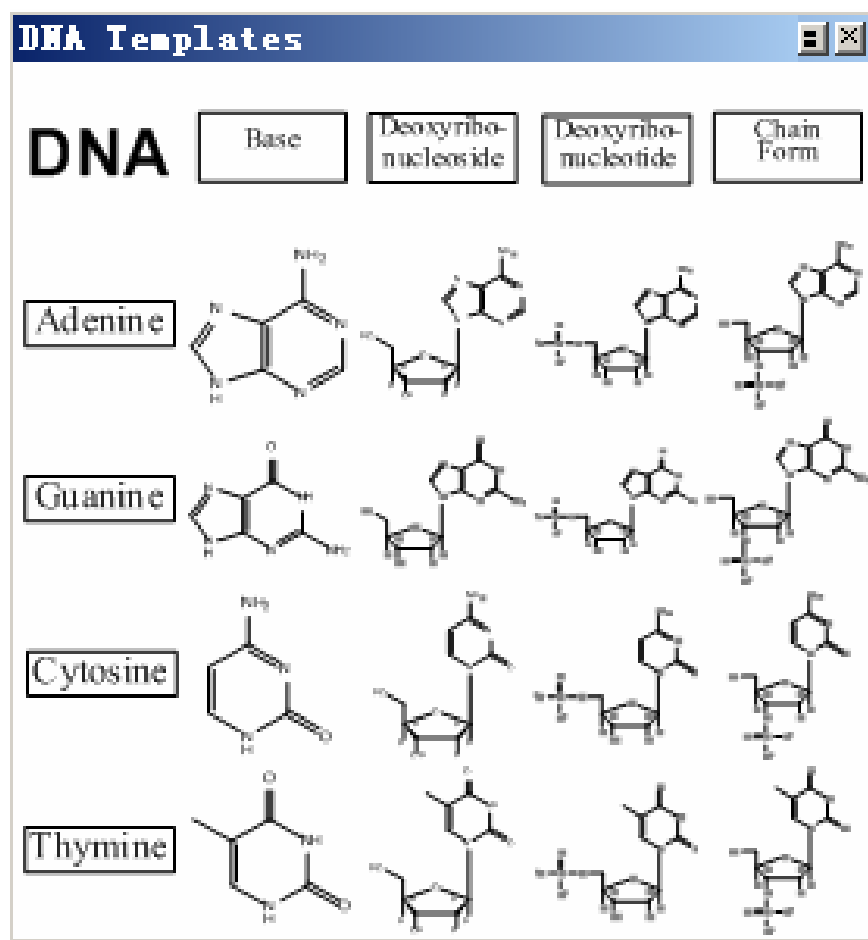


模板工具

脂环模板工具

第一部分 ChemDraw V10.0 简介

- Amino Acid Side Chains ▶
- Amino Acids ▶
- Aromatics ▶
- Bicyclics ▶
- BioArt ▶
- Clipware, part 1 ▶
- Clipware, part 2 ▶
- Conformers ▶
- Cp Rings ▶
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- Polyhedra ▶
- Polypeptides ▶
- RNA Templates ▶
- Stereocenters ▶
- Supramolecules ▶



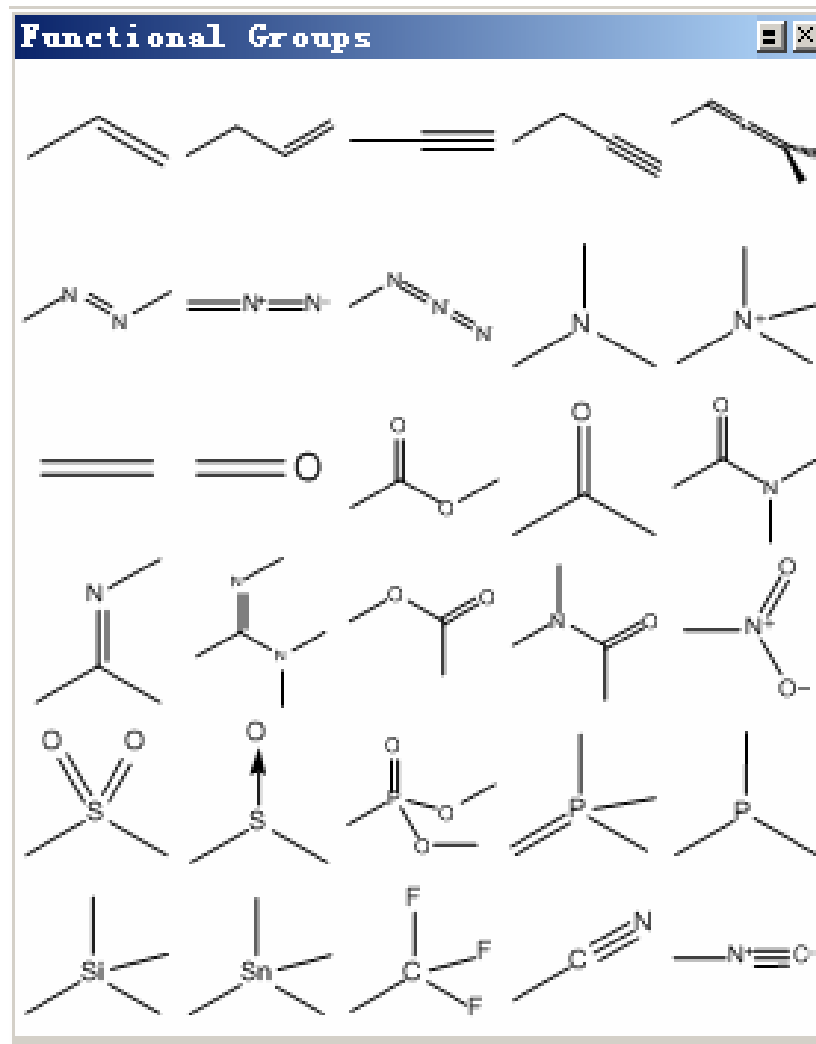
模板工具

DNA模板工具

第一部分 ChemDraw V10.0 简介

- Amino Acid Side Chains ▶
- Amino Acids ▶
- Aromatics ▶
- Bicyclics ▶
- BioArt ▶
- Clipware, part 1 ▶
- Clipware, part 2 ▶
- Conformers ▶
- Cp Rings ▶
- Cycloalkanes ▶
- DNA Templates ▶
- Functional Groups ▶
- Hexoses ▶
- Nanotubes ▶
- Ph Rings ▶
- Polyhedra ▶
- Polypeptides ▶
- RNA Templates ▶
- Stereocenters ▶
- Supramolecules ▶

模板工具



官能团模板工具

第一部分 ChemDraw V10.0 简介

Amino Acid Side Chains ▶

Amino Acids ▶

Aromatics ▶

Bicyclics ▶

BioArt ▶

Clipware, part 1 ▶

Clipware, part 2 ▶

Conformers ▶

Cp Rings ▶

Cycloalkanes ▶

DNA Templates ▶

Functional Groups ▶

Hexoses ▶

Nanotubes ▶

Ph Rings ▶

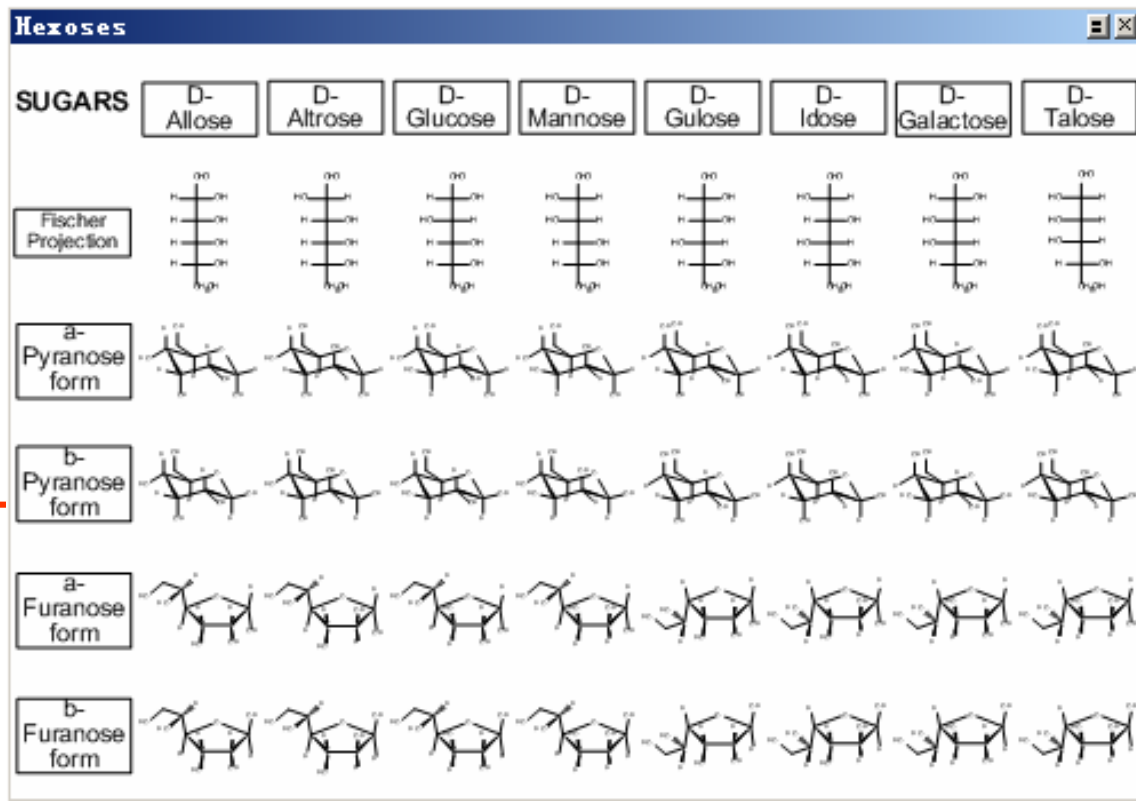
Polyhedra ▶

Polypeptides ▶

RNA Templates ▶

Stereocenters ▶

Supramolecules ▶

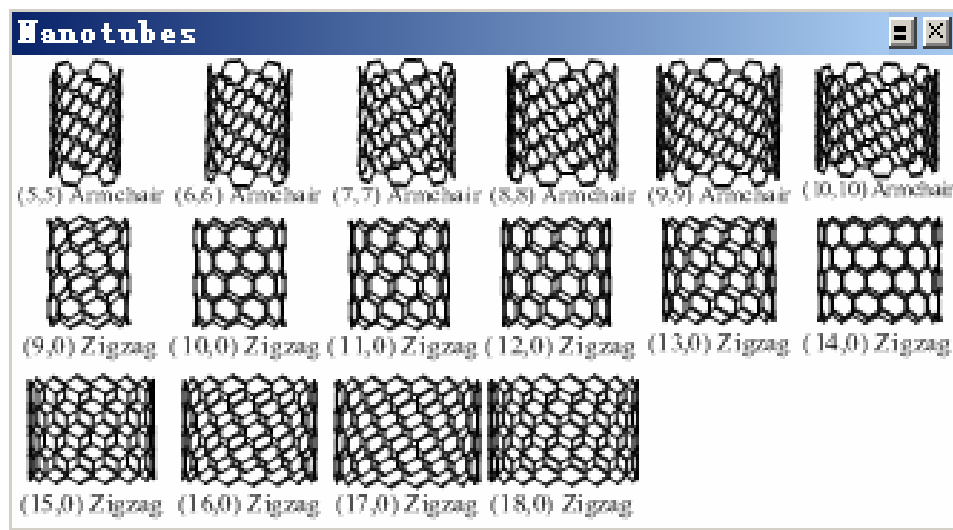


模板工具

己糖模板工具

第一部分 ChemDraw V10.0 简介

- Amino Acid Side Chains ▶
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- Aromatics ▶
- Bicyclics ▶
- BioArt ▶
- Clipware, part 1 ▶
- Clipware, part 2 ▶
- Conformers ▶
- Cp Rings ▶
- Cycloalkanes ▶
- DNA Templates ▶
- Functional Groups ▶
- Hexoses ▶
- Nanotubes ▶
- Ph Rings ▶
- Polyhedra ▶
- Polypeptides ▶
- RNA Templates ▶
- Stereocenters ▶
- Supramolecules ▶

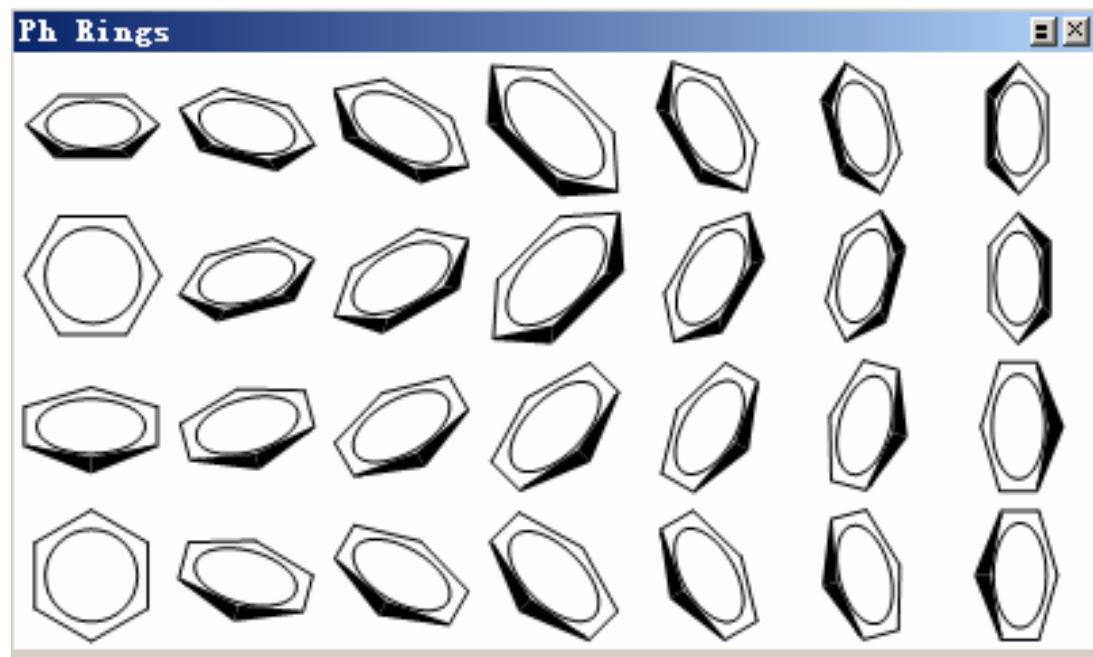


模板工具

微管模板工具

第一部分 ChemDraw V10.0 简介

- Amino Acid Side Chains ▶
- Amino Acids ▶
- Aromatics ▶
- Bicyclics ▶
- BioArt ▶
- Clipware, part 1 ▶
- Clipware, part 2 ▶
- Conformers ▶
- Cp Rings ▶
- Cycloalkanes ▶
- DNA Templates ▶
- Functional Groups ▶
- Hexoses ▶
- Nanotubes ▶
- Ph Rings ▶
- Polyhedra ▶
- Polypeptides ▶
- RNA Templates ▶
- Stereocenters ▶
- Supramolecules ▶

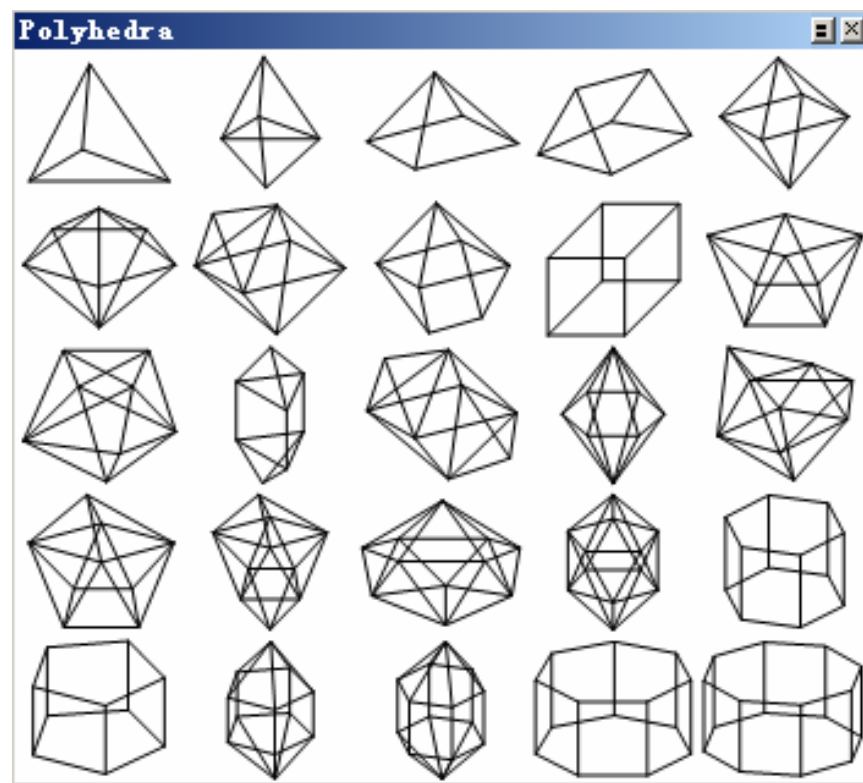


模板工具

苯环模板工具

第一部分 ChemDraw V10.0 简介

- Amino Acid Side Chains ▶
- Amino Acids ▶
- Aromatics ▶
- Bicyclics ▶
- BioArt ▶
- Clipware, part 1 ▶
- Clipware, part 2 ▶
- Conformers ▶
- Cp Rings ▶
- Cycloalkanes ▶
- DNA Templates ▶
- Functional Groups ▶
- Hexoses ▶
- Nanotubes ▶
- Ph Rings ▶
- Polyhedra ▶
- Polypeptides ▶
- RNA Templates ▶
- Stereocenters ▶
- Supramolecules ▶



模板工具

多面体模板工具

第一部分 ChemDraw V10.0 简介

Amino Acid Side Chains ▶

Amino Acids ▶

Aromatics ▶

Bicyclics ▶

BioArt ▶

Clipware, part 1 ▶

Clipware, part 2 ▶

Conformers ▶

Cp Rings ▶

Cycloalkanes ▶

DNA Templates ▶

Functional Groups ▶

Hexoses ▶

Nanotubes ▶

Ph Rings ▶

Polyhedra ▶

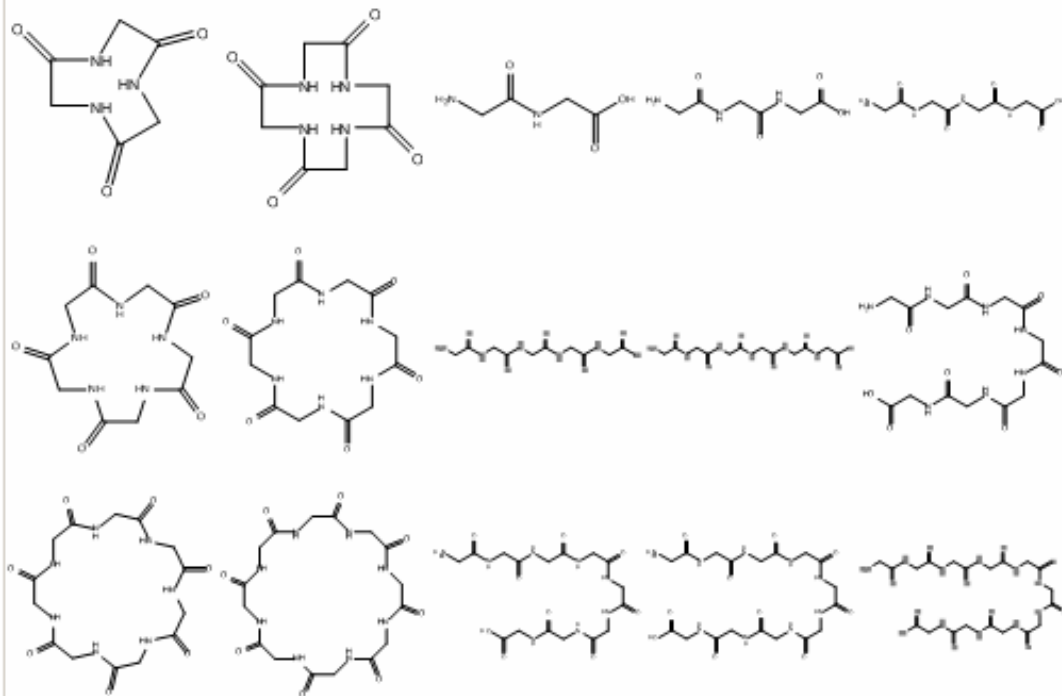
Polypeptides ▶

RNA Templates ▶

Stereocenters ▶

Supramolecules ▶

Polypeptides



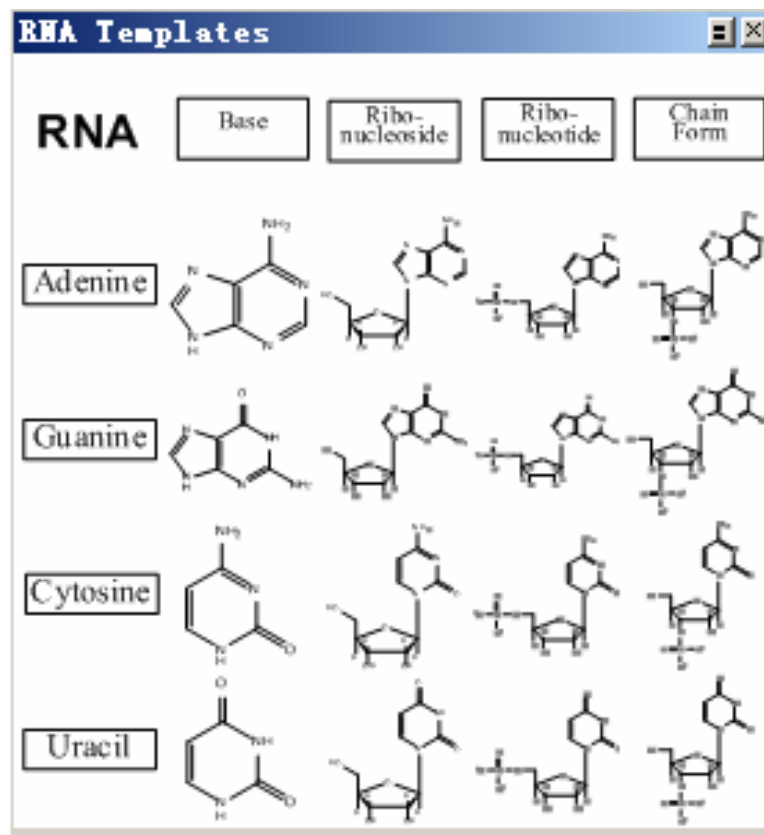
模板工具

多肽模板工具

第一部分 ChemDraw V10.0 简介

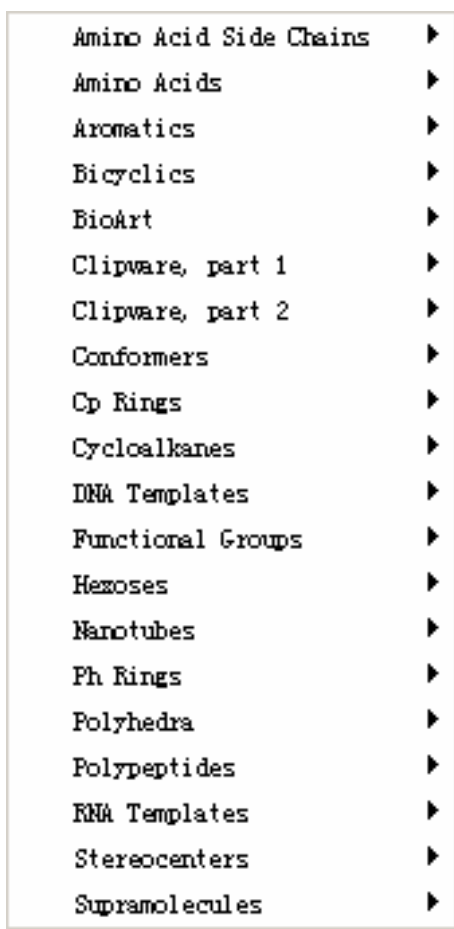
- Amino Acid Side Chains ▶
- Amino Acids ▶
- Aromatics ▶
- Bicyclics ▶
- BioArt ▶
- Clipware, part 1 ▶
- Clipware, part 2 ▶
- Conformers ▶
- Cp Rings ▶
- Cycloalkanes ▶
- DNA Templates ▶
- Functional Groups ▶
- Hexoses ▶
- Nanotubes ▶
- Ph Rings ▶
- Polyhedra ▶
- Polypeptides ▶
- RNA Templates ▶
- Stereocenters ▶
- Supramolecules ▶

模板工具

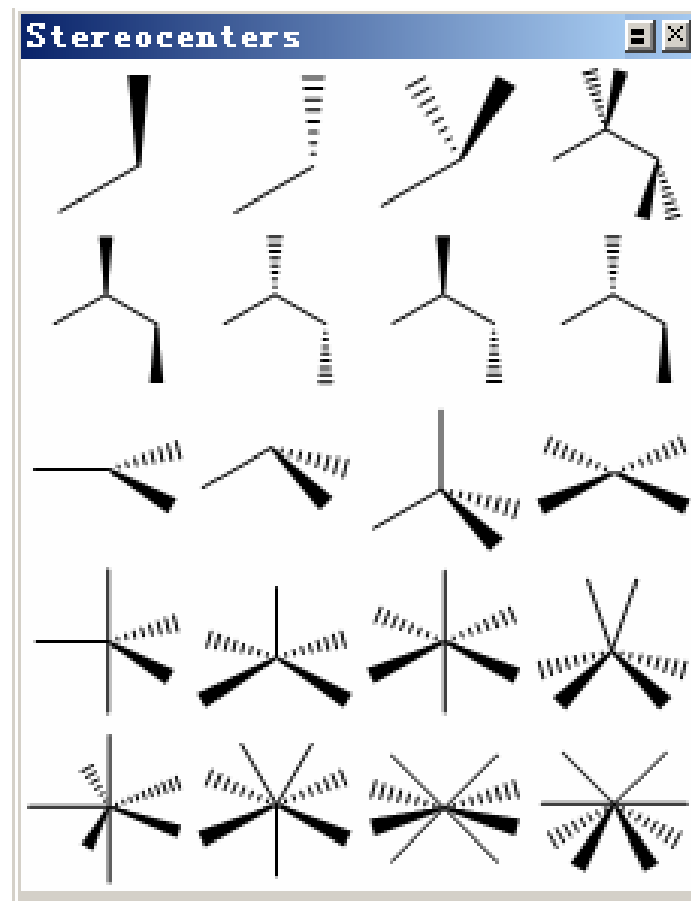


RNA模板工具

第一部分 ChemDraw V10.0 简介



模板工具

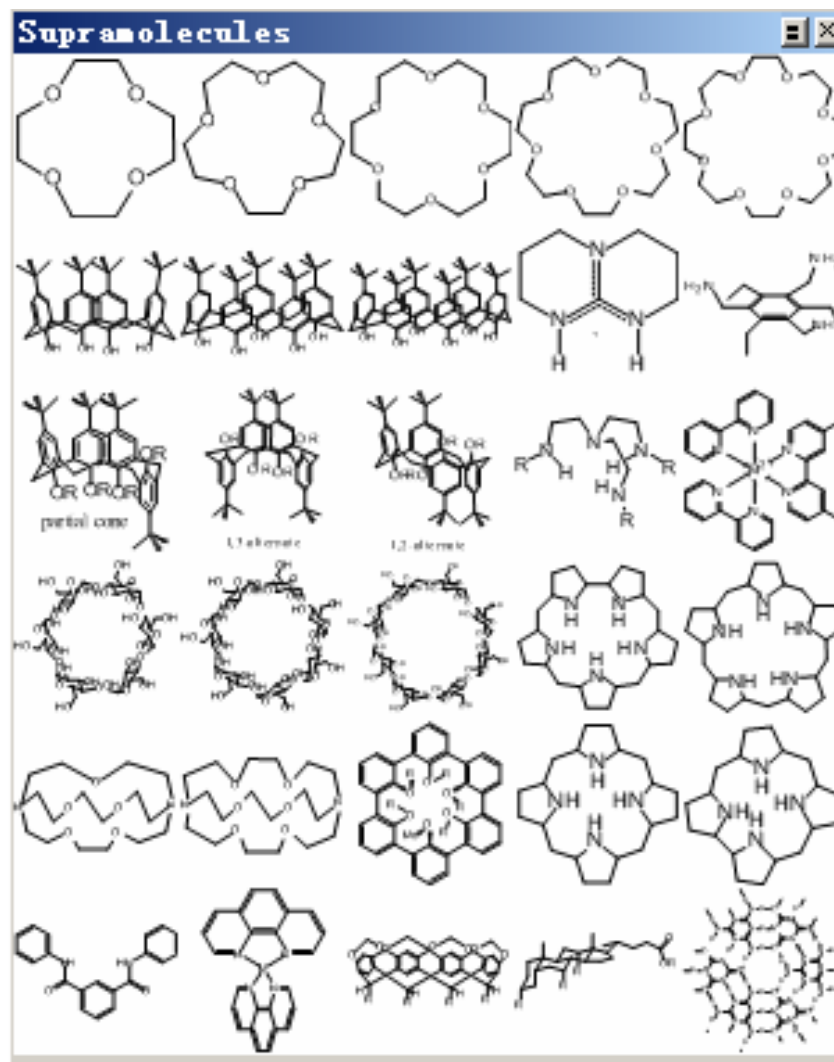


立体中心模板工具

第一部分 ChemDraw V10.0 简介



















- Amino Acid Side Chains ▶
- Amino Acids ▶
- Aromatics ▶
- Bicyclics ▶
- BioArt ▶
- Clipware, part 1 ▶
- Clipware, part 2 ▶
- Conformers ▶
- Cp Rings ▶
- Cycloalkanes ▶
- DNA Templates ▶
- Functional Groups ▶
- Hexoses ▶
- Nanotubes ▶
- Ph Rings ▶
- Polyhedra ▶
- Polypeptides ▶
- RNA Templates ▶
- Stereocenters ▶
- Supramolecules ▶

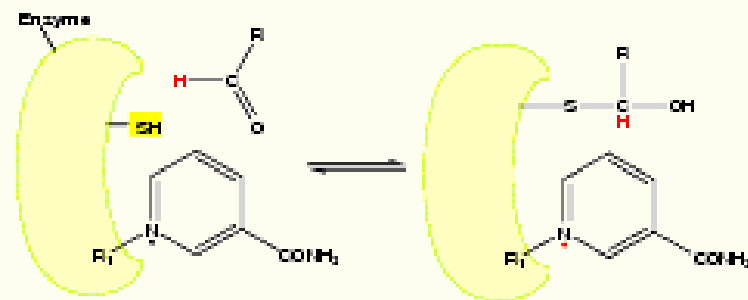
模板工具



超分子模板工具

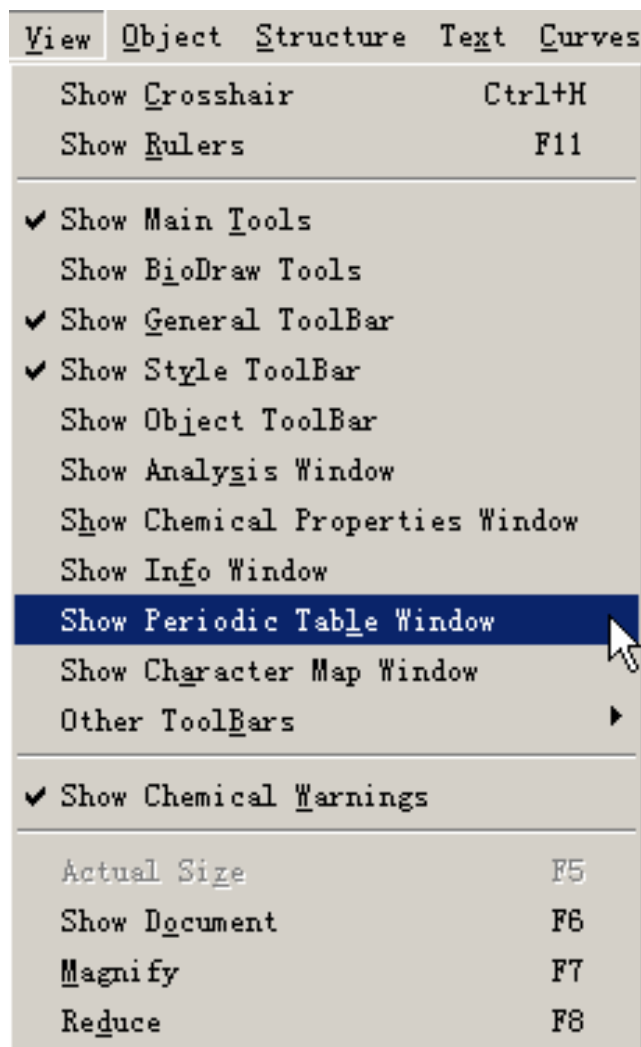
第一部分 ChemDraw V10.0 简介

1-substrate enzyme			G-protein (alpha subunit)
2-substrate enzyme			G-protein (beta subunit)
Receptor			G-protein (gamma subunit)
Ion Channel			Immunoglobulin
Helix Protein			DNA
Membrane (line)			Micelle
Membrane (arc)			Membrane (ellipse)
Golgi Body			Endoplasmic Reticulum
Cloud			Mitochondrion



生物绘图工具

第一部分 ChemDraw V10.0 简介



元素周期表

第一部分 ChemDraw V10.0 简介

Periodic Table

H

He

Li Be

1 Hydrogen

B C N O F Ne

Na Mg

Al Si P S Cl Ar

K Ca Sc Ti V Cr Mn Fe Co Ni Cu Zn Ga Ge As Se Br Kr

Rb Sr Y Zr Nb Mo Tc Ru Rh Pd Ag Cd In Sn Sb Te I Xe

Cs Ba La Hf Ta W Re Os Ir Pt Au Hg Tl Pb Bi Po At Rn

Fr Ra Ac Rf Db Sg Bh Hs Mt Ds Rg

Ce Pr Nd Pm Sm Eu Gd Tb Dy Ho Er Tm Yb Lu

Th Pa U Np Pu Am Cm Bk Cf Es Fm Md No Lr

Atomic weight: 1.00794

Natural isotopes 1 (99.9885), 2 (0.0115)

Common valences: 1

Melting point (C): -259.14

Boiling point (C): -252.87

Density (g/cc): 0.07

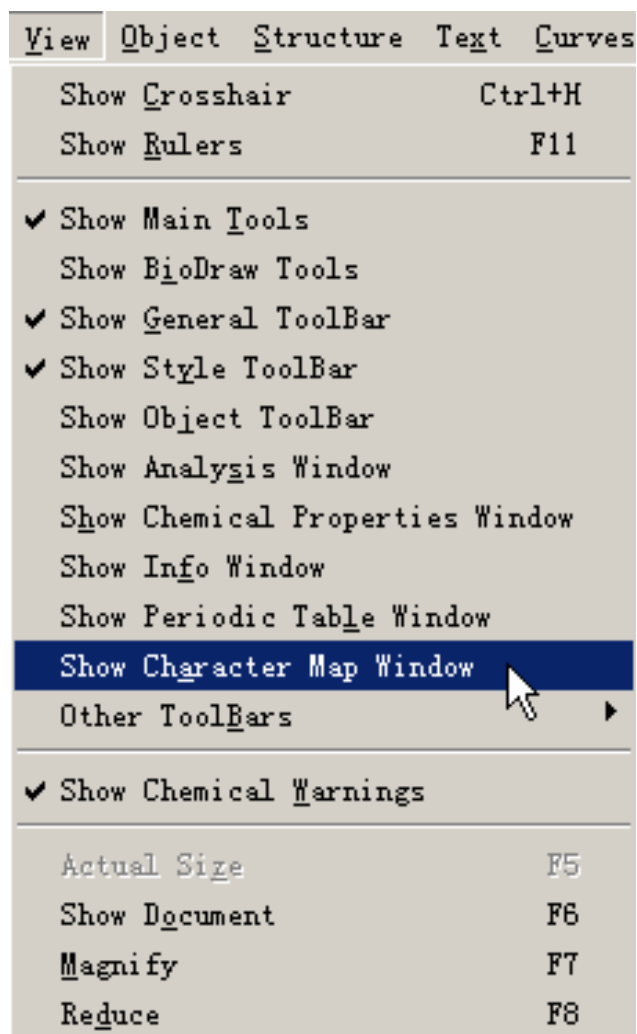
Electronegativity (Pauling): 2.2

Ionization potential (kJ/mol): 1312

Atomic radius (pm): 25

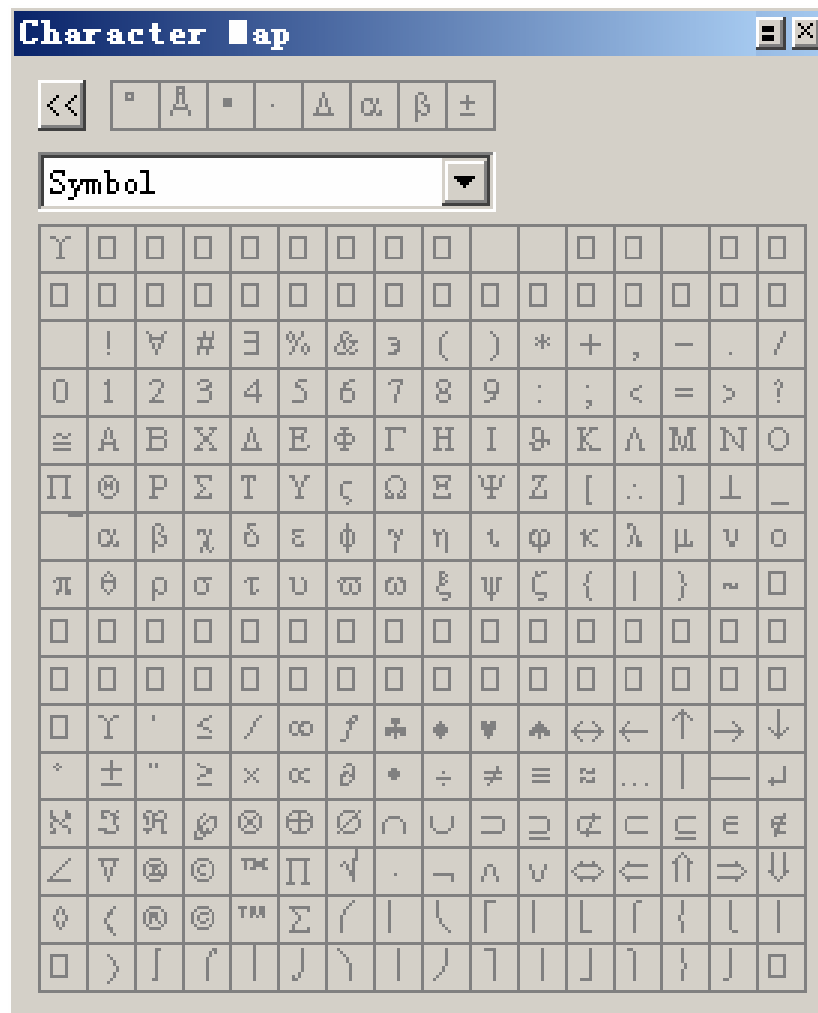
Discoverer: Cavendish, 1766

第一部分 ChemDraw V10.0 简介



字符映射表

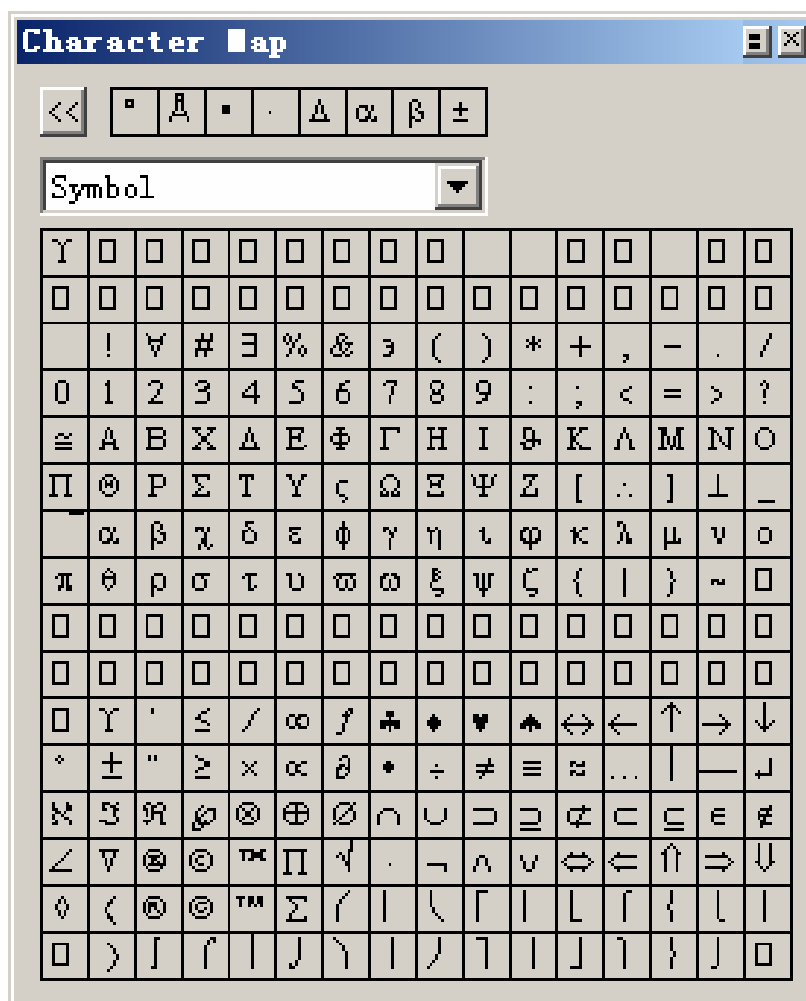
第一部分 ChemDraw V10.0 简介



字符映射表在非文本输入下不激活(灰色)

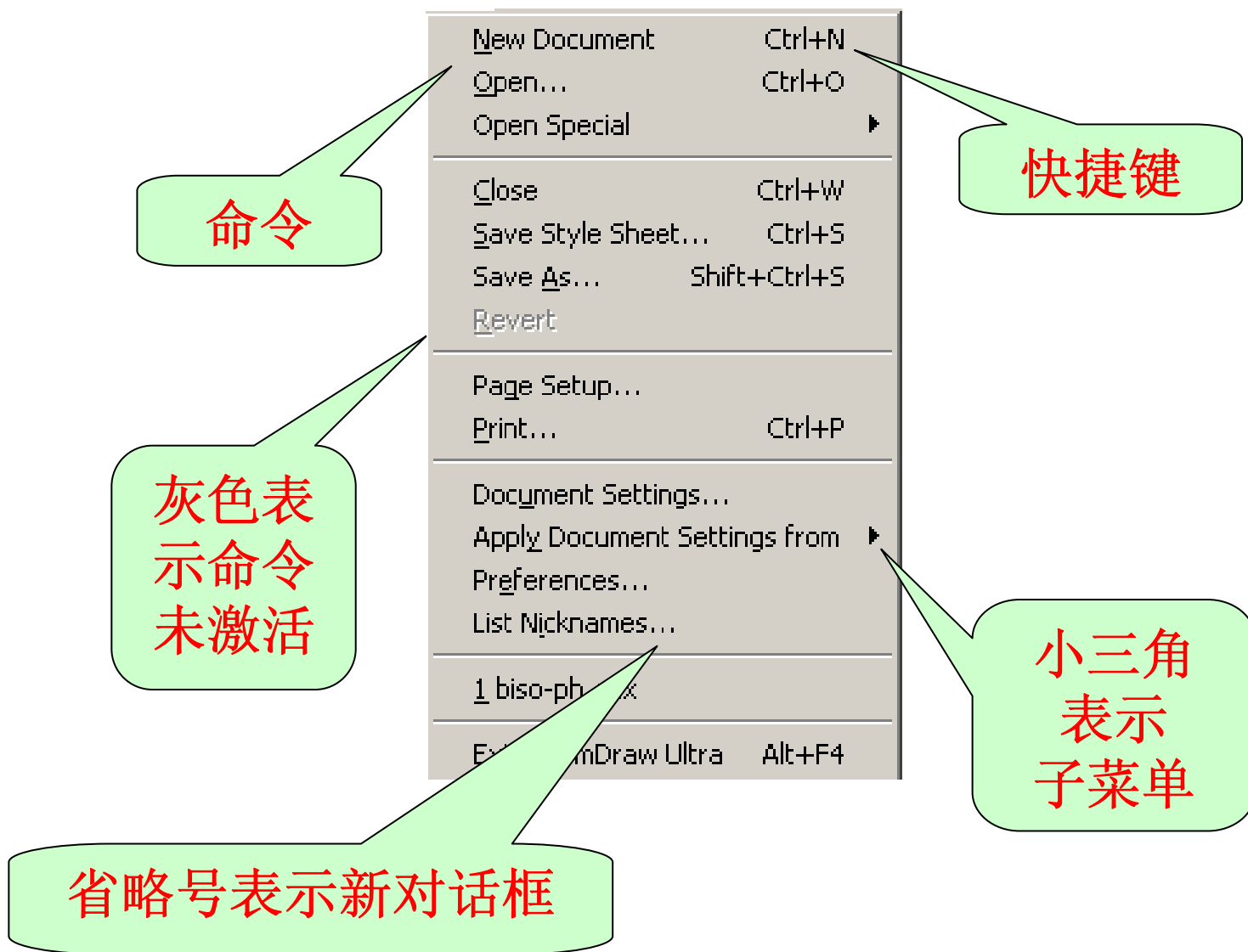
第一部分 ChemDraw V10.0 简介

CH3



字符映射表在文本输入下激活(黑色)

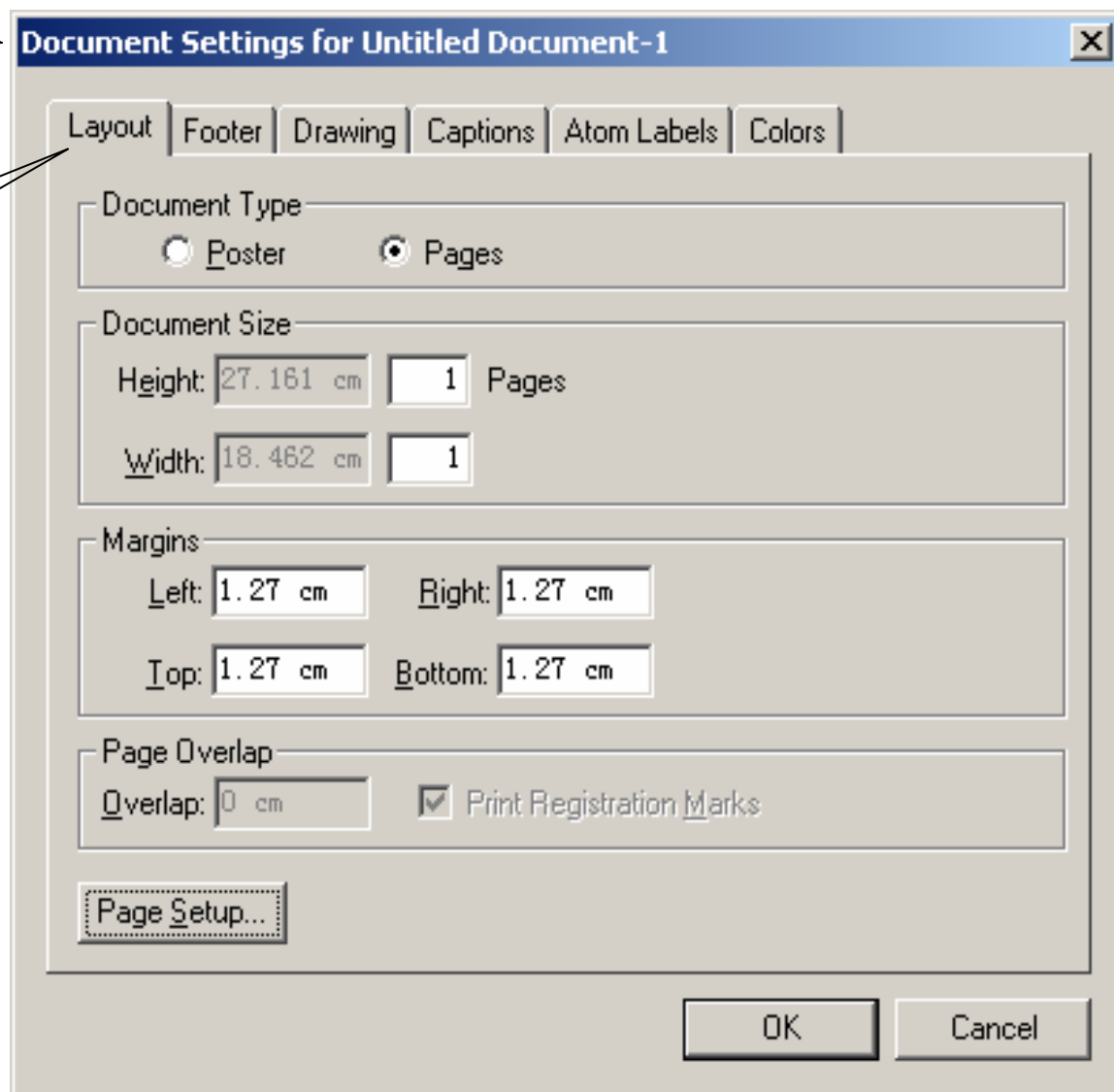
第一部分 ChemDraw V10.0 简介



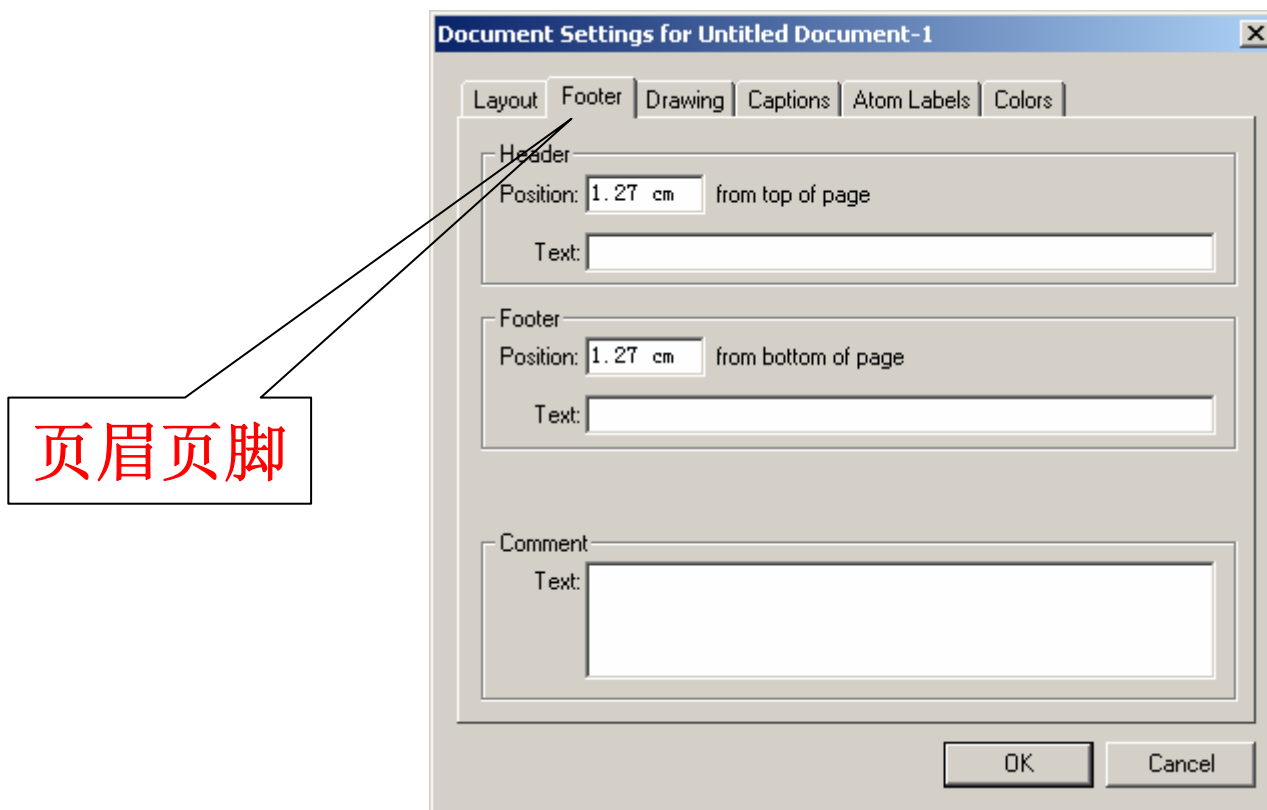
第一部分 ChemDraw V10.0 简介

文档设置

页面规划

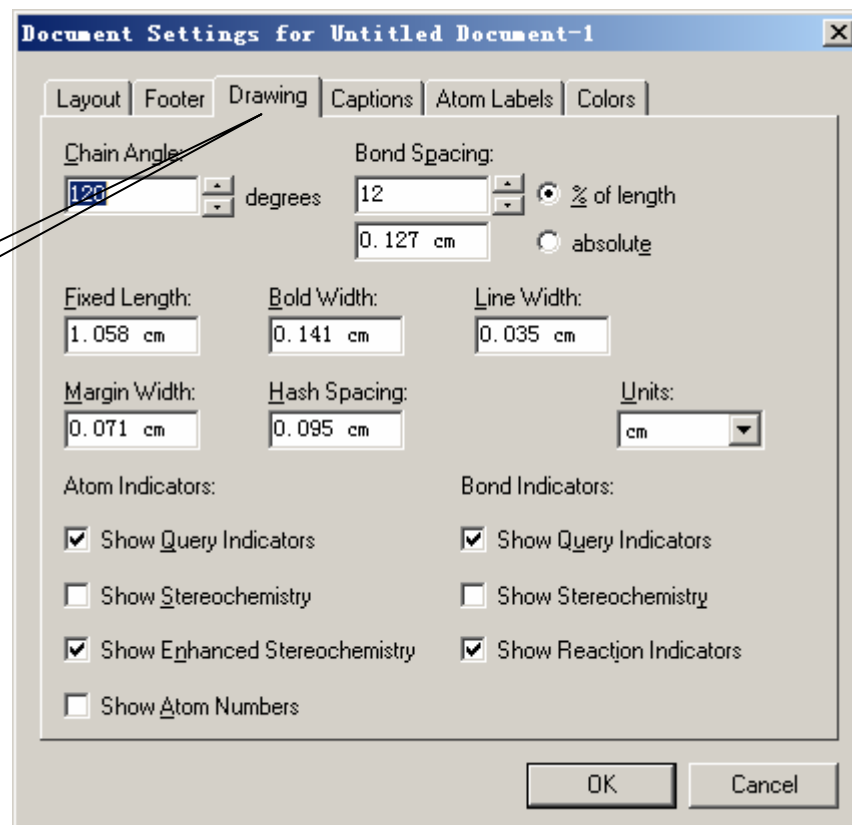


第一部分 ChemDraw V10.0 简介

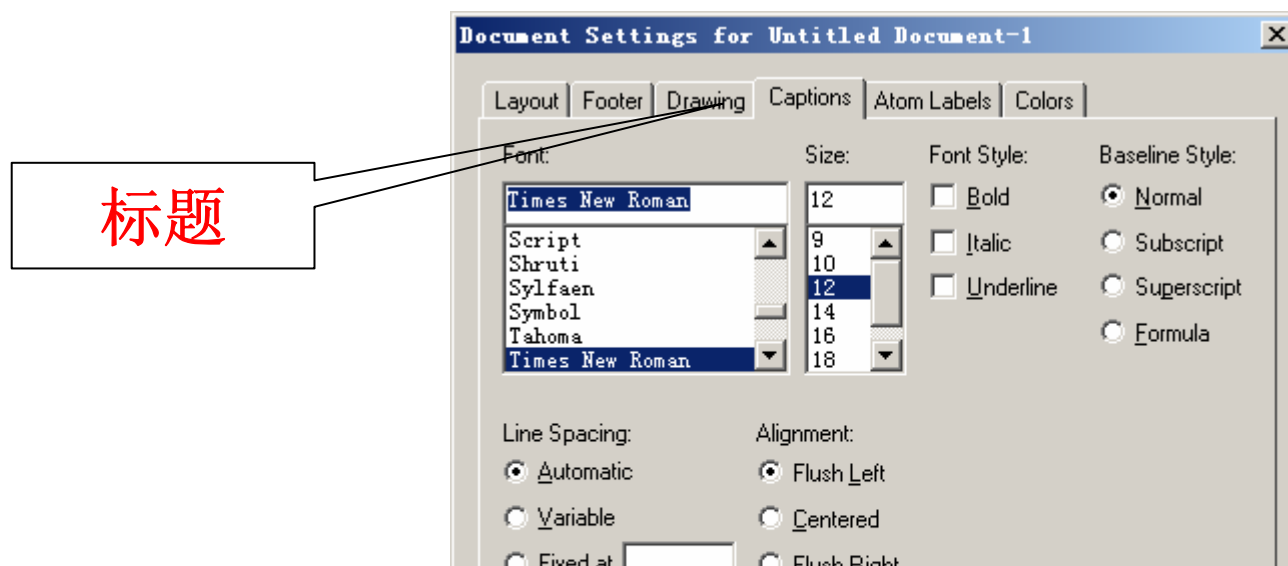


第一部分 ChemDraw V10.0 简介

绘图



第一部分 ChemDraw V10.0 简介

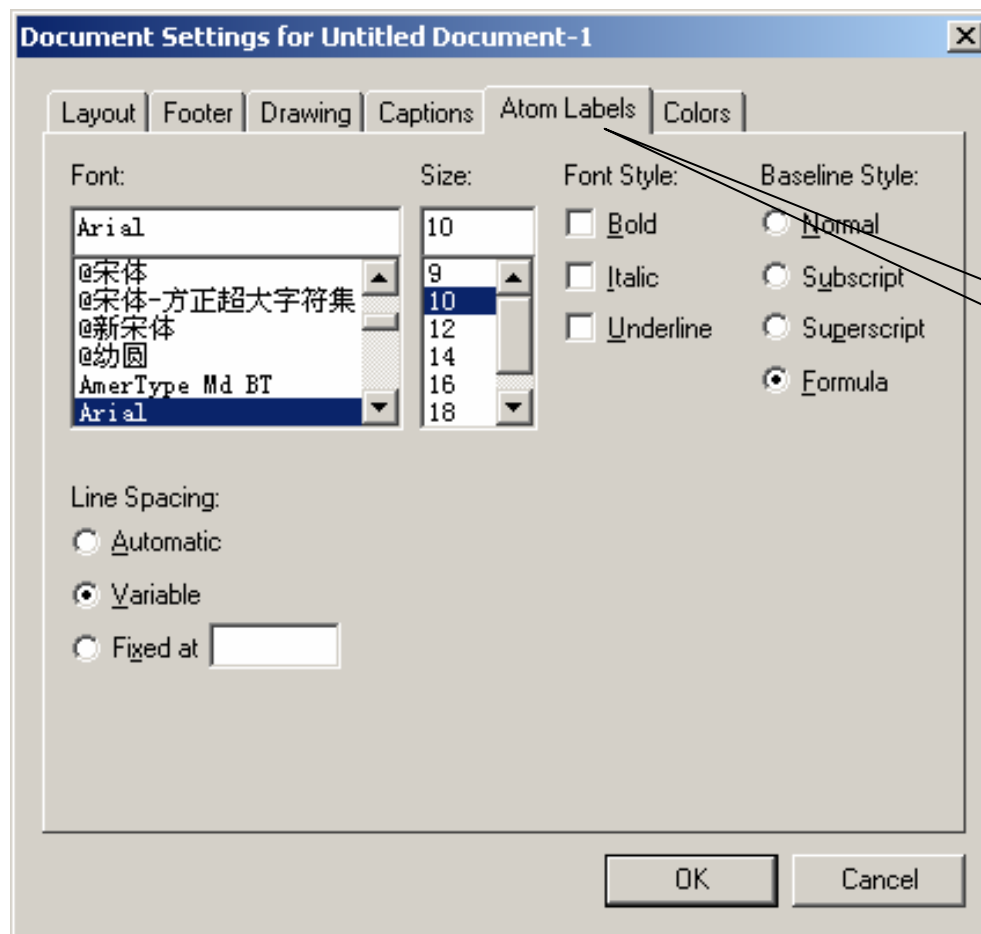


ChemDraw V10.0 Times New Roma 字体

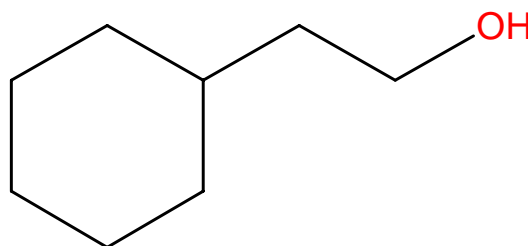
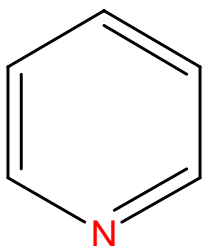
ChemDraw V10.0 Arial 字体

$\alpha\beta\chi\delta\epsilon\phi\gamma\eta\iota\phi\kappa\lambda\mu\nu\sigma\tau\upsilon\omega\xi\psi\zeta$ Symble 字体

第一部分 ChemDraw V10.0 简介

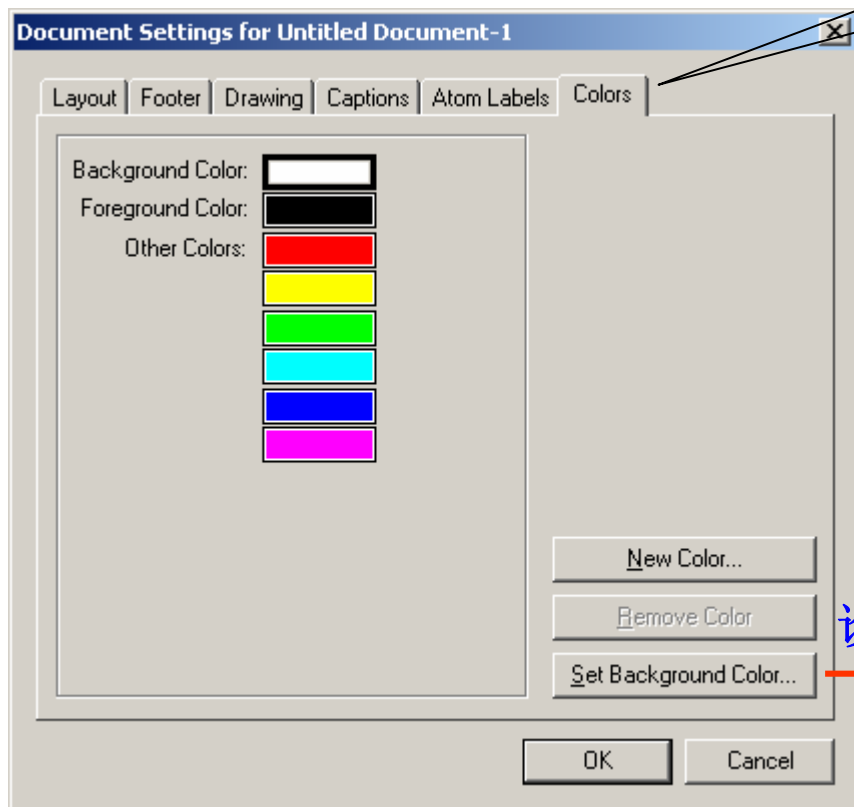


原子标记



第一部分 ChemDraw V10.0 简介

颜色

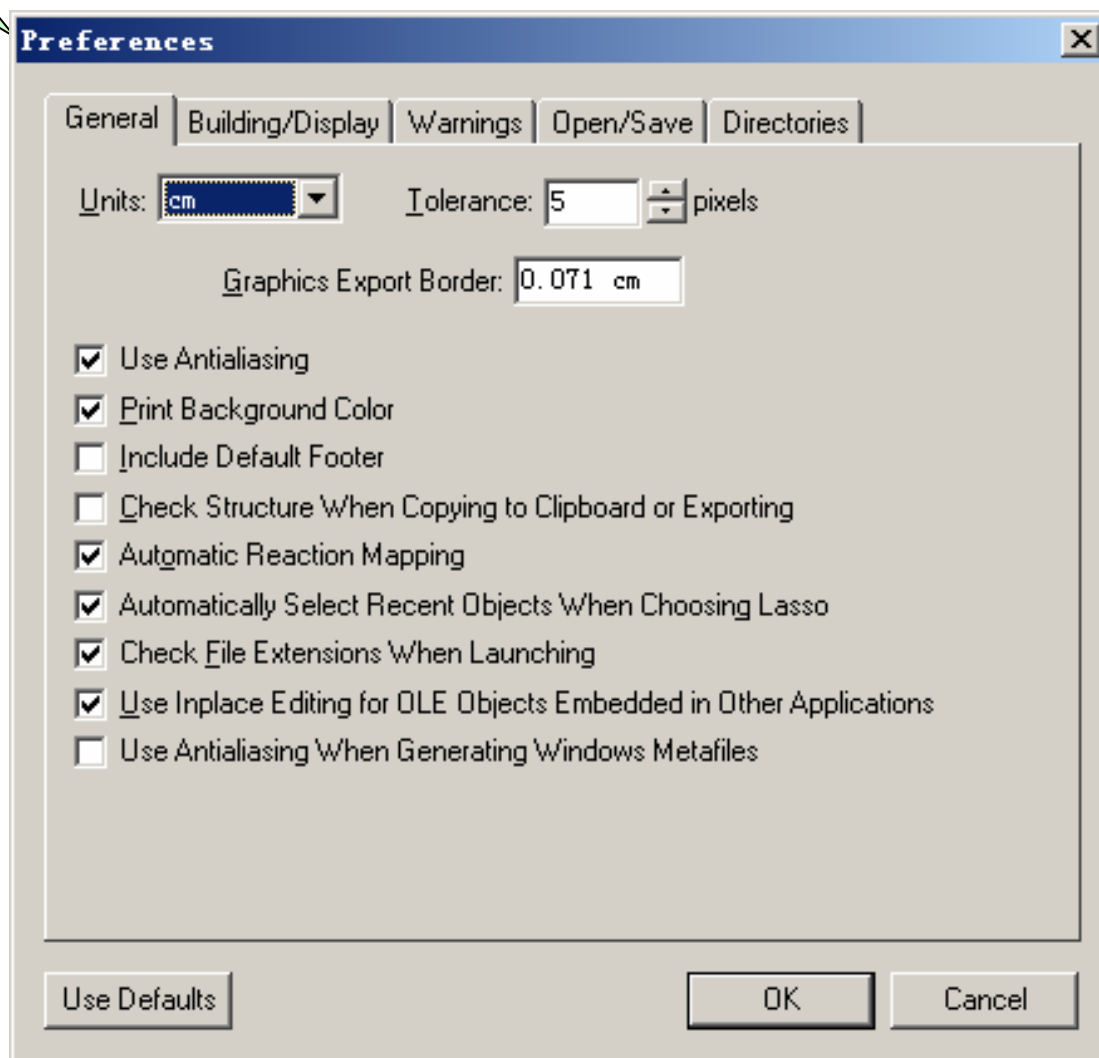


设置背景颜色



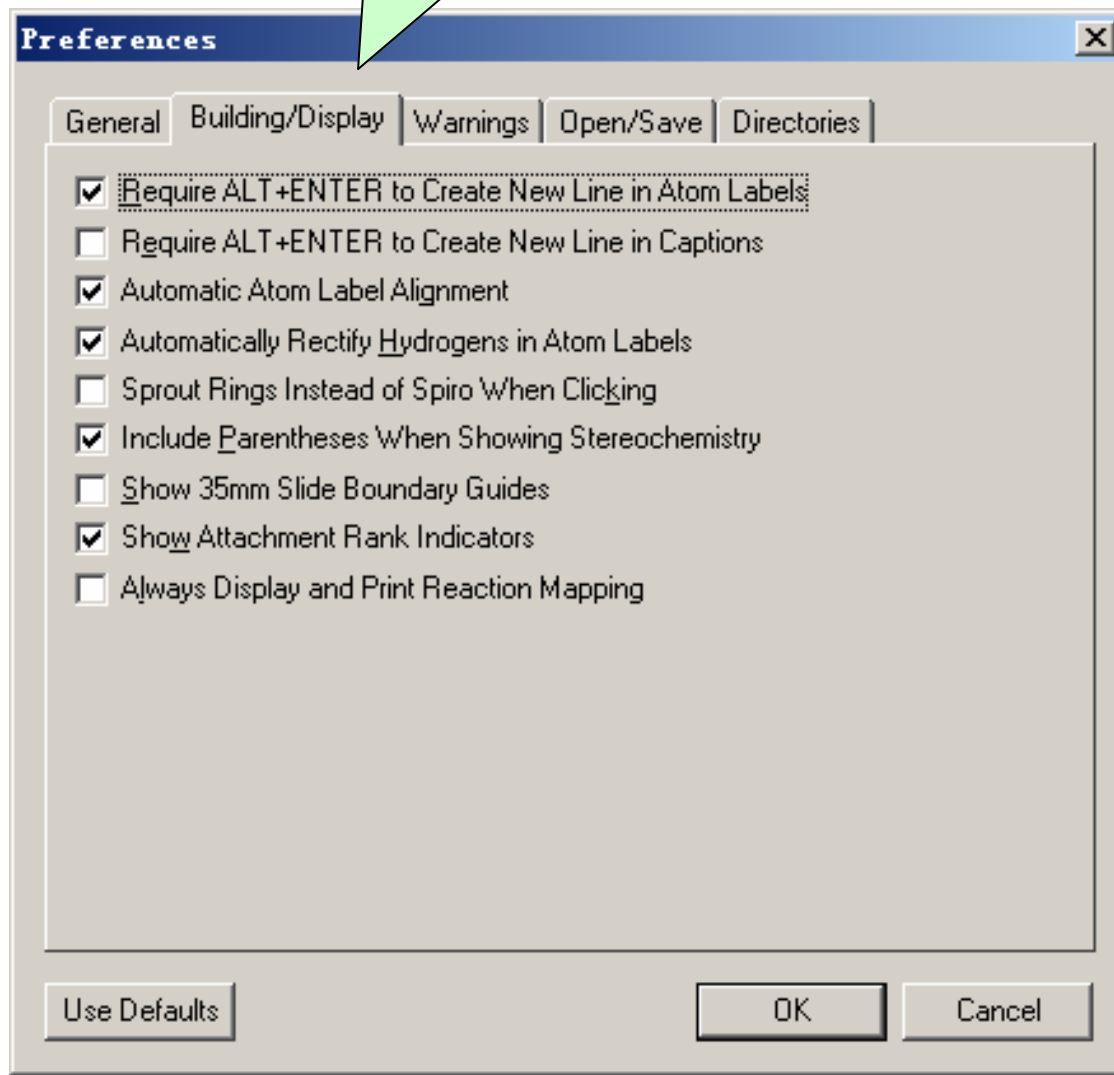
第一部分 ChemDraw V10.0 简介

优选项



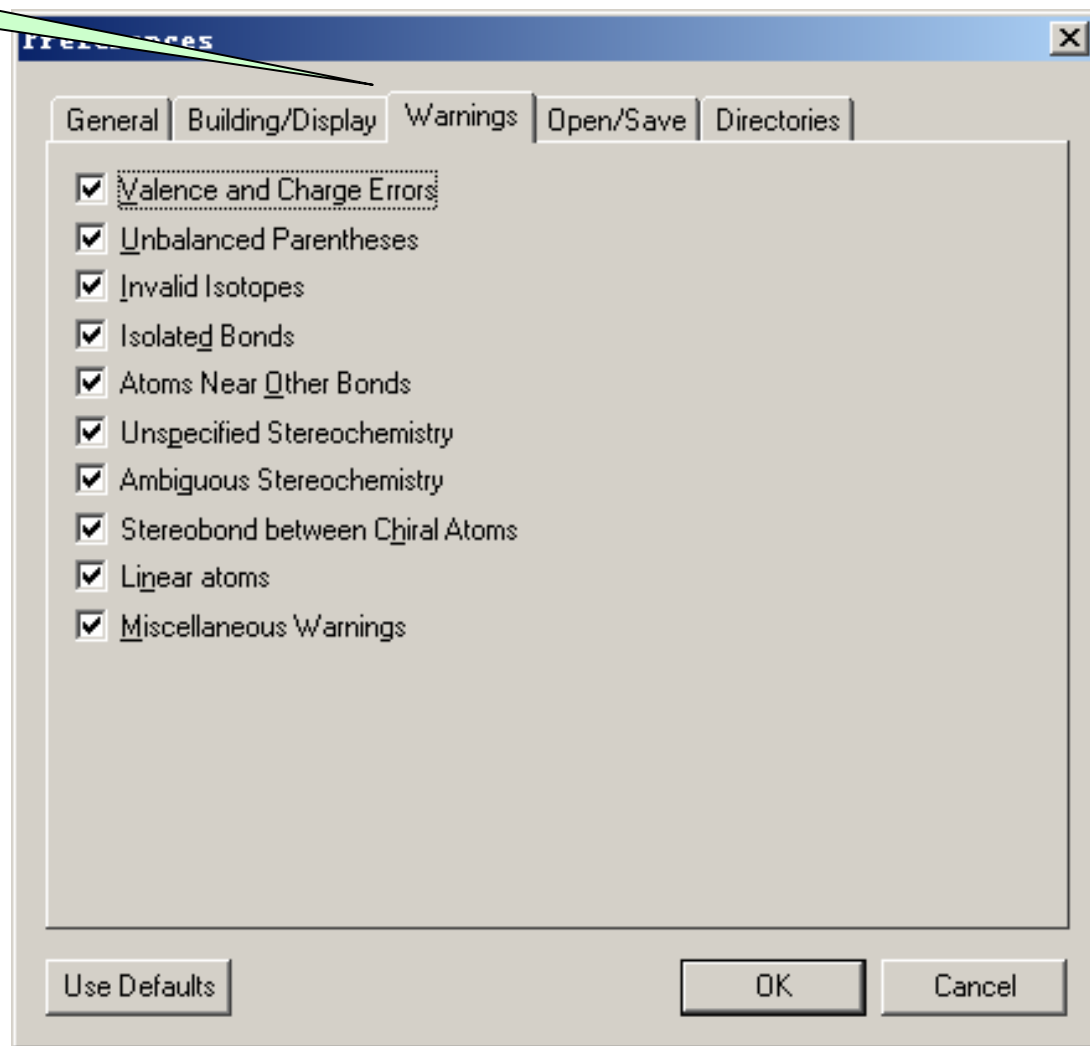
第一部分 ChemDraw V10.0 简介

建模及显示设置



第一部分 ChemDraw V10.0 简介

错误警告

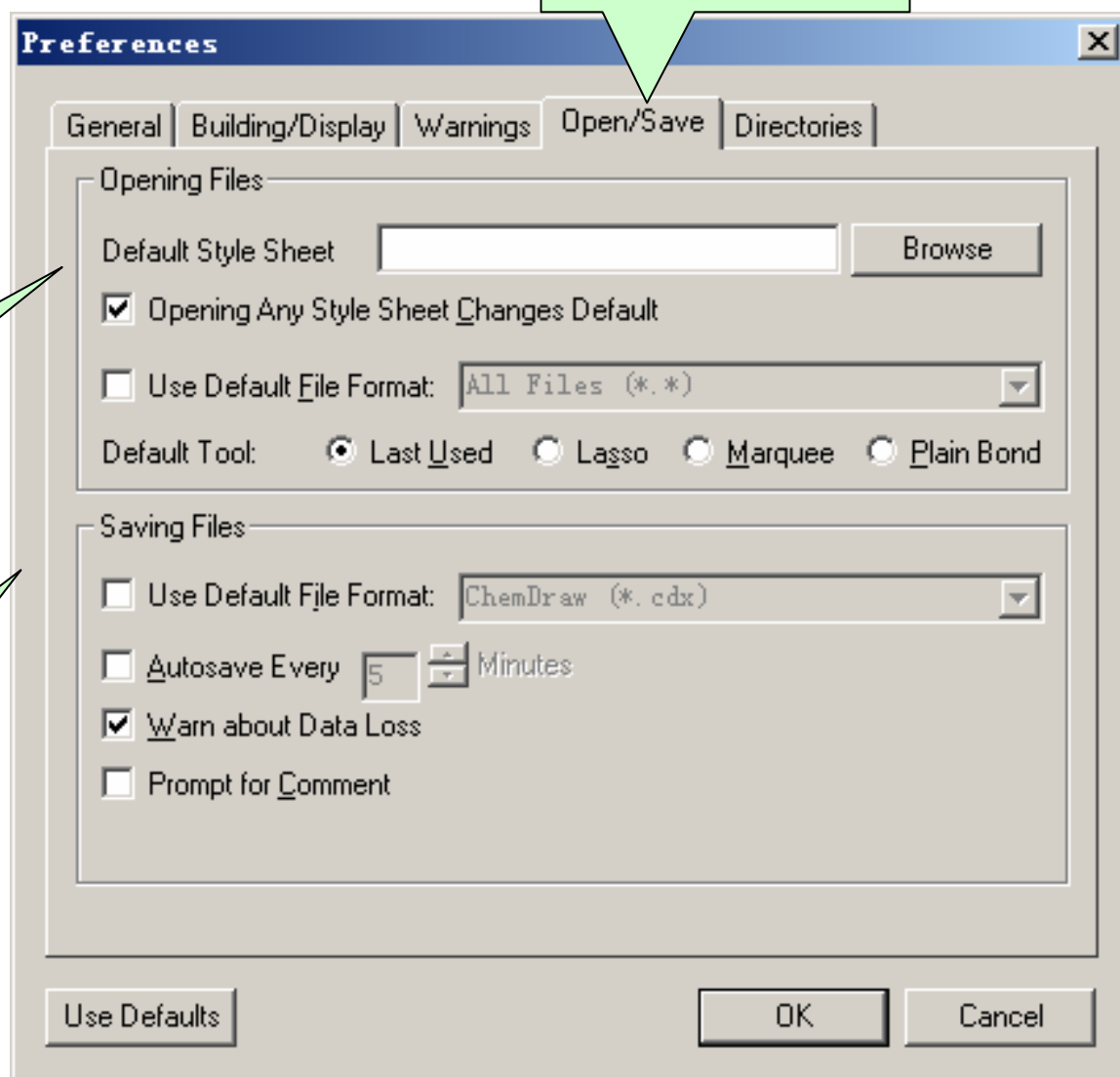


第一部分 ChemDraw V10.0 简介

打开/存盘

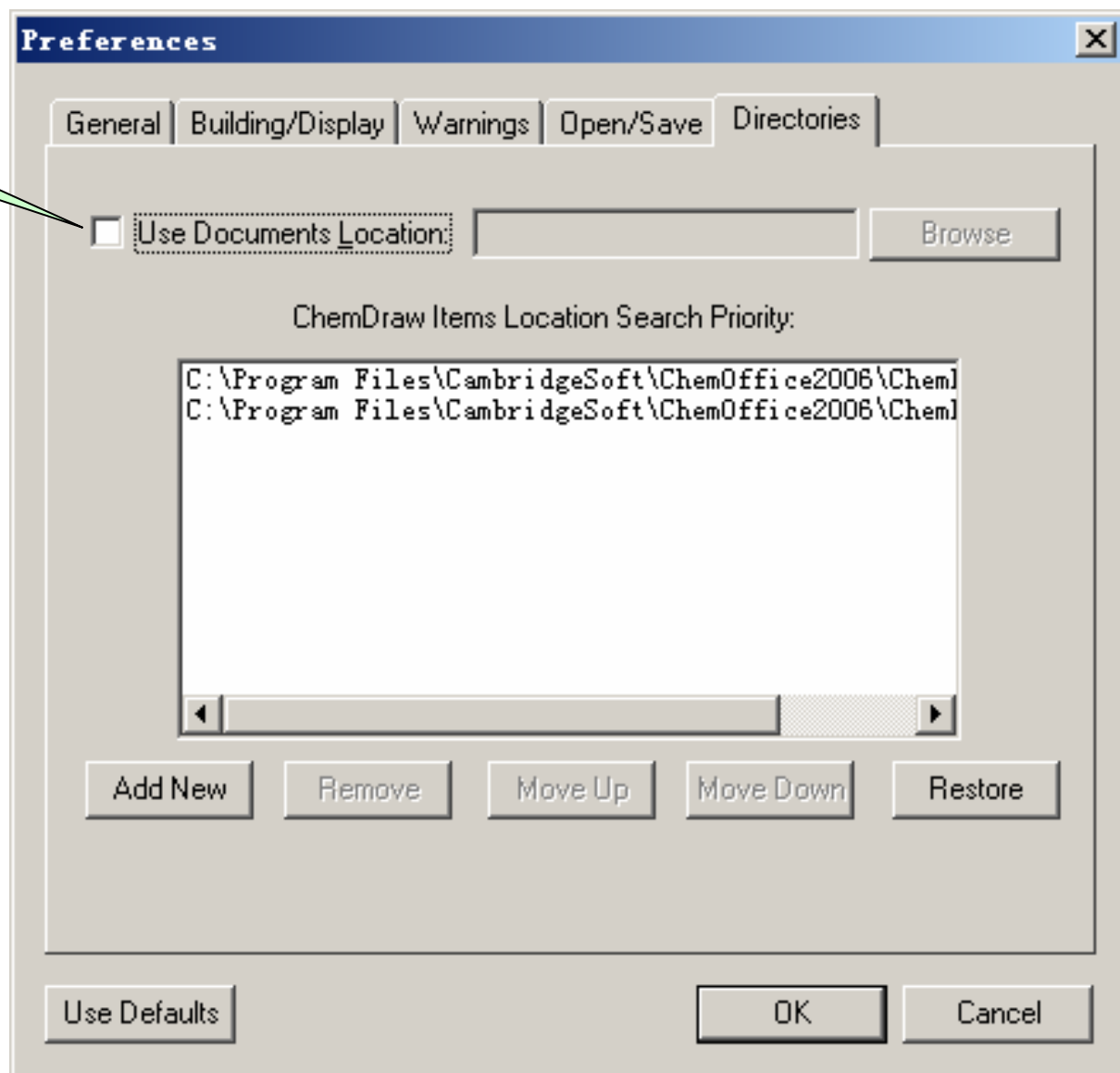
默认打开
文件格式

默认存盘
文件格式

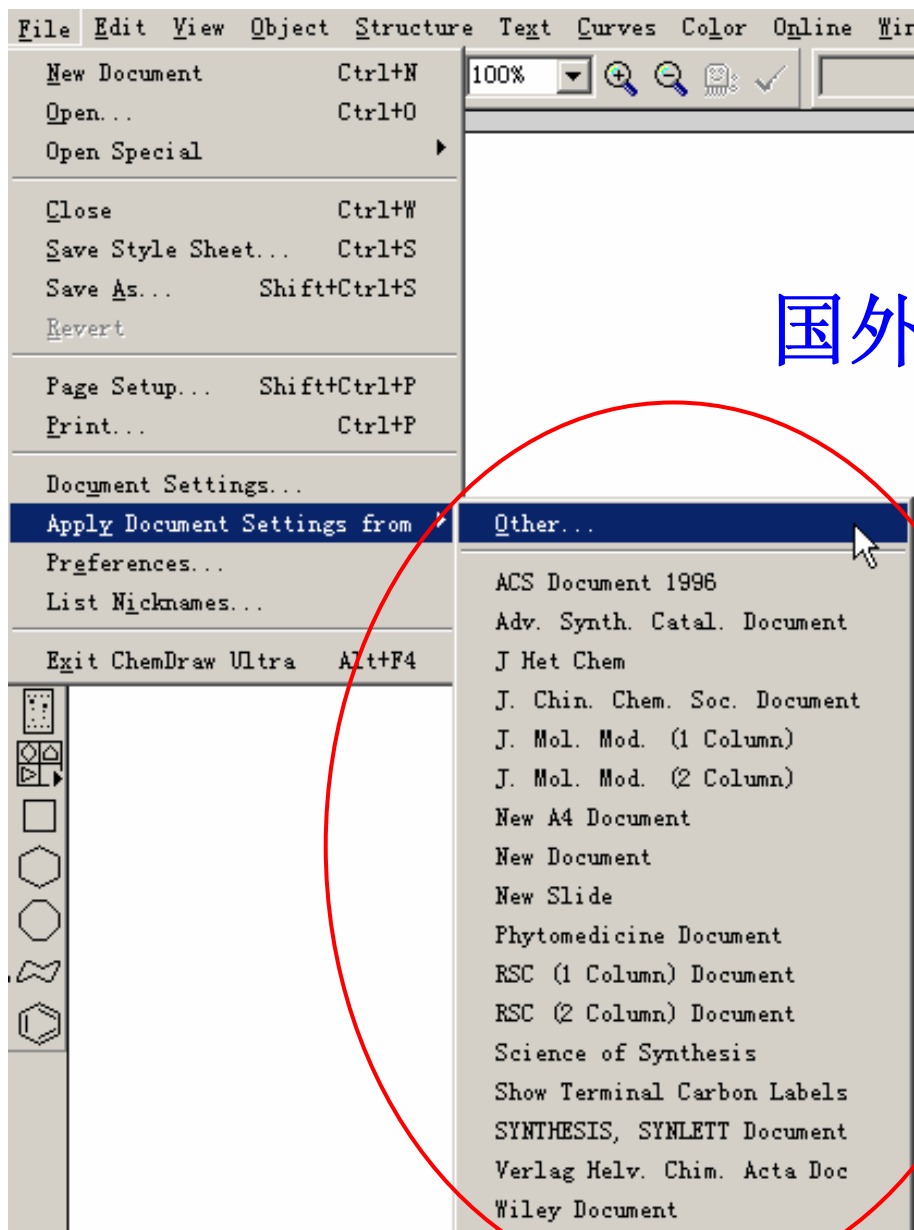


第一部分 ChemDraw V10.0 简介

默认路径



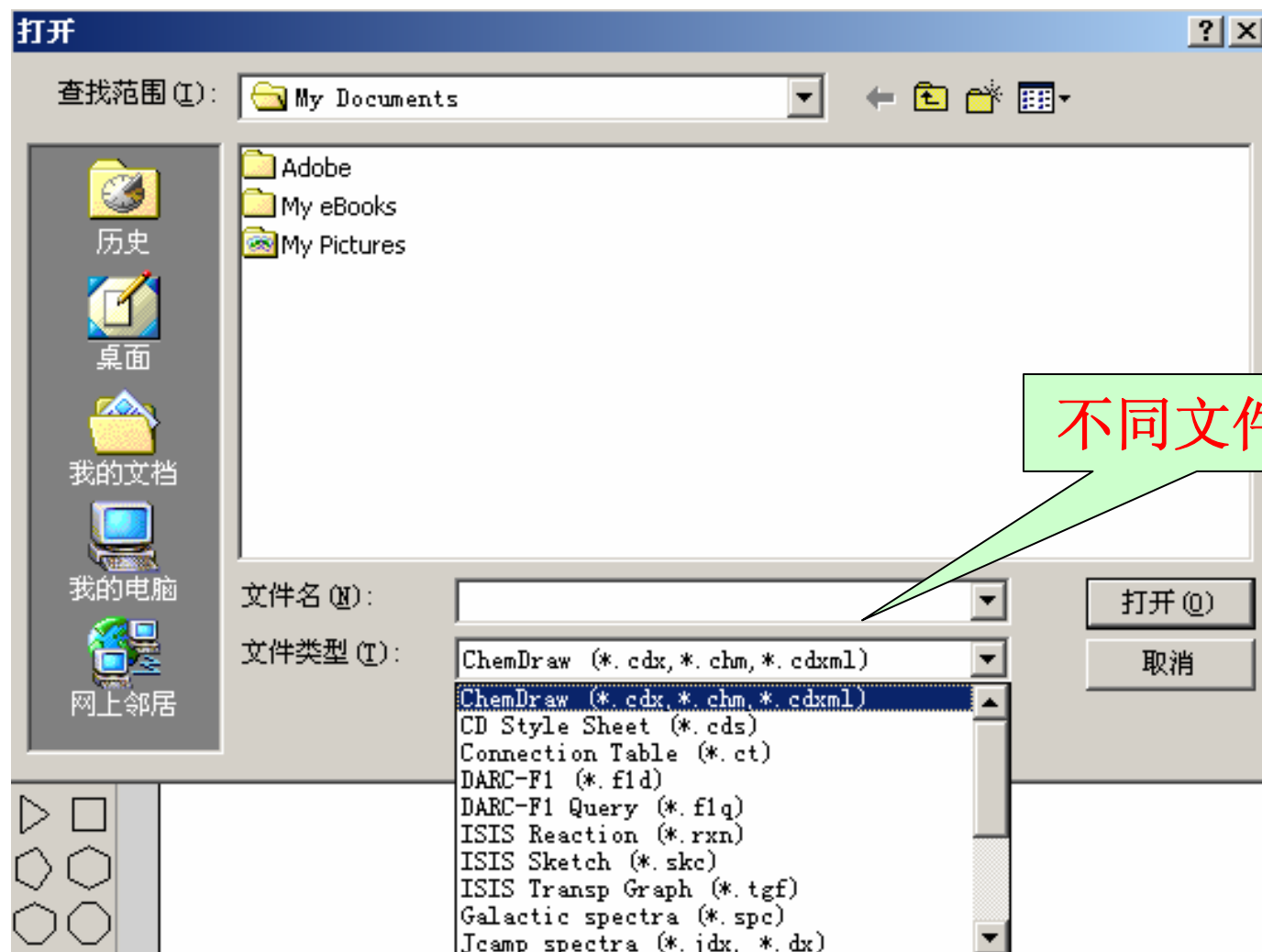
第一部分 ChemDraw V10.0 简介



国外化学刊物默认文档格式

第一部分 ChemDraw V10.0 简介

打开文件



第一部分 ChemDraw V10.0 简介

文件格式介绍

- 1 **CD Template(*.ctp, *.ctr)**——用于保存模板文档
- 2 **ChemDraw (*.cdx)**——ChemDraw原本格式，是一个公共标记的文件格式，易被其它程序建立和解释
- 3 **ChemDraw Steyl Sheet(*.cds)**——用于存储文件设置和其它物体
- 4 **Connection Table(*.ct)**——一种实例格式，存储关于原子与元素、系列编号、X和Y轴、键序、键类型等的连接和联系的列表。是用于多类应用程序间互换信息的通用格式

第一部分 ChemDraw V10.0 简介

- 5 **DARC-F1 (*.fld)**——Questel DARC系统中存储结构的原本文件格式
- 6 **DARC-F1 Query (*.flq)**——Questel DARC系统中存储查询的原本文件格式
- 7 **ISIS Reaction (*.rxn)**——MDL开发的格式，用于存储元素反应信息
- 8 **ISIS Sketch (*.skc)**——在Windows或Macintosh环境下，存储并传输到另外的ISIS应用程序中

第一部分 ChemDraw V10.0 简介

- 9 **MDL MolFile (*.mol)**——MDL(分子设计有限公司) MolFile文件格式用于其它一些在Windows、Macintosh和Unix环境下的化学数据库和绘画应用软件
- 10 **Galactic Spectra(*.spc)**——银河图谱文件格式
- 11 **Jcamp Spectra(*.jdx, *.dx)**——图谱文件格式，可读入紫外、质谱、红外、核磁等数据文件
- 12 **MSI ChemNote(*.msm)**——一种ASCII文本文件，可以用于像ChemNote一类的应用程序

第一部分 ChemDraw V10.0 简介

13 SMD 4.2 (*.smd)——ASCII文本文件，一般用于检索化学文摘数据库

14 Windows Metafile (*.wmf)——图片文件格式，可以将ChemDraw图片传输到其它应用程序中，如Word。WMF 文件格式含有ChemDraw的结构信息，可被ChemDraw早期版本编辑