

Edit Molecules

Spoken Tutorial Project

<http://spoken-tutorial.org>

National Mission on Education through ICT

<http://sakshat.ac.in>

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Learning Objectives



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We will learn to:



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We will learn to:

- ▶ **Add and delete atoms**



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- ▶ **Add and delete atoms**
- ▶ **Add and delete bonds**
- ▶ **Rotate bonds**



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- ▶ **Add and delete atoms**
- ▶ **Add and delete bonds**
- ▶ **Rotate bonds**
- ▶ **Change length of the bond**



Learning Objectives

We will learn to:

- ▶ **Add and delete atoms**
- ▶ **Add and delete bonds**
- ▶ **Rotate bonds**
- ▶ **Change length of the bond**
- ▶ **Change hydrogen to methyl group**
- ▶ **Copy, paste and join structures**



System Requirement



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- ▶ **Ubuntu Linux OS v 14.04**



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- ▶ **Avogadro version 1.1.1**



Pre-requisites



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► Avogadro interface



Assignment

1. Create a butane molecule using Draw tool
2. Convert it into 2,3 dimethyl butane
3. Rotate the bonds and change bond lengths



Assignment

1. Create a molecule of cellulose
2. Hint: D-Glucose monomer is available in the Insert fragment library
3. Optimize geometry using UFF force field



Spoken Tutorial Workshops

The Spoken Tutorial Project Team

- ▶ Conducts workshops using spoken tutorials
- ▶ Gives certificates to those who pass an online test
- ▶ For more details, please write to contact@spoken-tutorial.org



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- ▶ More information on this Mission is available at <http://spoken-tutorial.org/NMEICT-Intro>

