Measurements and Labeling

Talk to a Teacher
http://spoken-tutorial.org
National Mission on Education through ICT
http://sakshat.ac.in

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Learning Objectives

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- **Java (JRE) version 7 (Sun Microsystems)**

Assignment

- **Create models of** `1-butanoic acid` **and** `ethylacetate`
- **Optimize the structure by doing energy minimization**
- **Save the image**

Summary

- **Create models of** `carboxylic acid` **and** `nitroalkane`
- **Label atoms in a model with symbol and number**
- **Measure bond lengths, bond angles and dihedral angles (Torsion angles)**

- **Create models of molecules with single, double and triple bonds**
- **Measure bond lengths between the carbon atoms and compare them**

About the Spoken Tutorial Project

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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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- **It is supported by the National Mission on Education through ICT, MHRD, Government of India**
- **More information on this Mission is available at http://spoken-tutorial.org /NMEICT-Intro**