

# Create and Edit Molecular Models

**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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- ▶ **Pop-up menu (Contextual menu)**



# Pre-requisites



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- Jmol Application window





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- ▶ **Modelkit function**



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- ▶ For relevant tutorials, please visit <http://spoken-tutorial.org>



# System Requirements



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- ▶ **Ubuntu Linux OS Version 12.04**



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- ▶ **Jmol Version 12.2.2**
- ▶ **Java (JRE) Version 7 (Sun Microsystems)**



# Assignment



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- ▶ Create models of the following molecules: 3-bromo-1-butanol and 2-amino-4-chloro-pentane
- ▶ Do energy minimization and Save the image in JPEG format

**Hint: Use "Save current view as an image" icon in the tool bar**





# Summary

- ▶ **Substitute the hydrogen atom in alkanes with a functional group**
- ▶ **Add bonds to convert alkanes to alkenes and alkynes**
- ▶ **Add and delete atoms**
- ▶ **Pop-up menu (Contextual menu)**



# Assignment



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- ▶ Create models of 2-fluoro-1,3-butadiene and 2-pentyne
- ▶ Use the Pop-up menu to change the display of the model to wireframe
- ▶ Do energy minimization and Save the image in PDF format



# About the Spoken Tutorial Project

- ▶ Watch the video available at [http://spoken-tutorial.org/What\\_is\\_a\\_Spoken\\_Tutorial](http://spoken-tutorial.org/What_is_a_Spoken_Tutorial)
- ▶ It summarises the Spoken Tutorial project



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- ▶ It summarises the Spoken Tutorial project
- ▶ If you do not have good bandwidth, you can download and watch it



# 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](mailto:contact@spoken-tutorial.org)



# Acknowledgements

- ▶ Spoken Tutorial Project is a part of the Talk to a Teacher project
- ▶ 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>

