Bond Rotation in Jmol

Spoken Tutorial Project
https://spoken-tutorial.org
National Mission on Education through ICT

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Learning Objectives

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- Create models of anti, gauche and eclipsed conformers of 1,2-dichloroethane

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- **Java version 11.0.16**

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- **Jmol Spoken Tutorials link: https://spoken-tutorial.org**

Conformations of 1,2-dichloroethane

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- **Eclipsed conformer is unstable**
- **Conformers are interconvertible by C-C bond rotation**

Bond Rotation Tools

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Bond rotation in Jmol:

- **Using the bond rotating tool from the modelkit menu**
- **Typing Jmol script commands on the Console**

Links to Jmol Script Commands

- **Jmol Script Commands**
  https://chemapps.stolaf.edu/jmol/docs
- **Rotate Command**
  https://chemapps.stolaf.edu/jmol/docs/#rotate

Link to Jmol Script Commands ST Video

Please watch the video on script commands
It is available on the Spoken Tutorial website in the Jmol Application series
https://spoken-tutorial.org/tutorial-search/?search_foss=Jmol+Application&search_language=English

Summary

- Used tools in the modelkit menu to rotate bonds
- Used script commands to rotate specific bonds in a model
- Created models of anti, gauche and eclipsed conformers of 1,2-dichloroethane

Assignment

- **Explore the rotate command to create the models of conformations of n-butane**

About the Spoken Tutorial Project

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

Answers for THIS Spoken Tutorial

- **Questions in THIS Spoken Tutorial?**
- **Visit https://forums.spoken-tutorial.org**
- **Choose the minute and second where you have the question**
- **Explain your question briefly**
- **The Spoken Tutorial project will ensure an answer**

You will have to register to ask questions

Acknowledgements

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