

## Detailed Licensing

---

### Overview

**Title:** OCLUE: Organic Chemistry, Life, the Universe, and Everything (Copper and Klymkowsky)

**Webpages:** 88

**Applicable Restrictions:** Noncommercial

### All licenses found:

- [CC BY-NC-SA 4.0](#): 80.7% (71 pages)
- [Undeclared](#): 19.3% (17 pages)

### By Page

- [OCLUE: Organic Chemistry, Life, the Universe, and Everything \(Copper and Klymkowsky\) - CC BY-NC-SA 4.0](#)
  - [Front Matter - CC BY-NC-SA 4.0](#)
    - [TitlePage - CC BY-NC-SA 4.0](#)
    - [InfoPage - CC BY-NC-SA 4.0](#)
    - [Table of Contents - Undeclared](#)
    - [Licensing - Undeclared](#)
  - [1: Acid–Base Reactions - CC BY-NC-SA 4.0](#)
    - [1.1: A Quick Review of the Models of Acid-Base Reactions. - CC BY-NC-SA 4.0](#)
    - [1.2: Acid-Base Reaction Direction and Position of Equilibrium - CC BY-NC-SA 4.0](#)
    - [1.3: Effect of pH on Acid Base Reactions - CC BY-NC-SA 4.0](#)
    - [1.4: Lewis Acids and Bases, Electrophiles and Nucleophiles - CC BY-NC-SA 4.0](#)
    - [1.5: In-Text References - CC BY-NC-SA 4.0](#)
  - [2: Spectroscopy- how we know what we know about the structure of matter - CC BY-NC-SA 4.0](#)
    - [2.1: Interactions of Electromagnetic Radiation and Electrons in Molecules - CC BY-NC-SA 4.0](#)
    - [2.2: UV-Vis Spectroscopy and Chromophores - or Why are Carrots Orange? - CC BY-NC-SA 4.0](#)
    - [2.3: Infrared \(IR\) Spectroscopy - Looking at Molecular Vibrations - CC BY-NC-SA 4.0](#)
    - [2.4: Functional Groups - CC BY-NC-SA 4.0](#)
    - [2.5: Carbon-13 NMR Spectroscopy - CC BY-NC-SA 4.0](#)
    - [2.6: H-1 \(proton\) NMR - CC BY-NC-SA 4.0](#)
    - [2.7: In-Text References - CC BY-NC-SA 4.0](#)
  - [3: Conformations and Configurations - the consequences of the three-dimensional nature of carbon compounds - CC BY-NC-SA 4.0](#)
    - [3.1: Conformations of Organic Molecules - CC BY-NC-SA 4.0](#)
    - [3.2: Optical Isomerism - CC BY-NC-SA 4.0](#)
    - [3.3: Configurations of Chiral Molecules- the Cahn-Ingold-Prelog Convention - CC BY-NC-SA 4.0](#)
    - [3.4: In-Text References - CC BY-NC-SA 4.0](#)
  - [4: Nucleophilic Substitution Part II - CC BY-NC-SA 4.0](#)
    - [4.1: Kinetics and Mechanisms- - CC BY-NC-SA 4.0](#)
    - [4.2: The  \$\text{S}\_{\text{N}}1\$  Reaction - CC BY-NC-SA 4.0](#)
    - [4.3: Rearrangements- A Consequence of Generating Unstable Carbocations - CC BY-NC-SA 4.0](#)
    - [4.4: Eliminations - CC BY-NC-SA 4.0](#)
    - [4.5: In-Text References - CC BY-NC-SA 4.0](#)
  - [5: Alkenes and Alkynes - CC BY-NC-SA 4.0](#)
    - [5.1: Reactions of Alkenes- Electrophilic Addition - CC BY-NC-SA 4.0](#)
    - [5.2: "Anti-Markovnikov" Addition across Double Bonds - CC BY-NC-SA 4.0](#)
    - [5.3: Reduction of Alkenes- - CC BY-NC-SA 4.0](#)
    - [5.4: Oxidation of Alkenes - CC BY-NC-SA 4.0](#)
    - [5.5: Reactions of Alkynes - CC BY-NC-SA 4.0](#)
    - [5.6: In-Text References - CC BY-NC-SA 4.0](#)
  - [6: Alcohols and an introduction to thiols, amines, ethers and sulfides - CC BY-NC-SA 4.0](#)
    - [6.1: \(Brønsted\) Acidity of Alcohols, Thiols, and Amines - CC BY-NC-SA 4.0](#)
    - [6.2: Nucleophilicity of  \$\text{ROH}\$ ,  \$\text{RSH}\$ , and  \$\text{RNH}\_2\$  - CC BY-NC-SA 4.0](#)
    - [6.3:  \$\text{O}\$ ,  \$\text{S}\$ , and  \$\text{N}\$  as Leaving Groups - CC BY-NC-SA 4.0](#)
    - [6.4: Oxidation of Alcohols - CC BY-NC-SA 4.0](#)
    - [6.5: Oxidation of Thiols - CC BY-NC-SA 4.0](#)
    - [6.6: Preparation of Alcohols - CC BY-NC-SA 4.0](#)
    - [6.7: In-Text References - CC BY-NC-SA 4.0](#)
  - [7: Nucleophilic attack at the carbonyl carbon- - CC BY-NC-SA 4.0](#)

- 7.1: Interconversion of Acids and Derivatives- Predicting Outcomes - *CC BY-NC-SA 4.0*
- 7.2: Preparations of Carboxylic Acids - *CC BY-NC-SA 4.0*
- 7.3: The Wittig Reaction - *CC BY-NC-SA 4.0*
- 7.4: Synthesis - *CC BY-NC-SA 4.0*
- 7.5: In-Text References - *CC BY-NC-SA 4.0*
- 7.6: Aldehydes and Ketones - *CC BY-NC-SA 4.0*
- 7.7: Nucleophilic Attack by Hydride or Carbanions - *CC BY-NC-SA 4.0*
- 7.8: Reactions of Aldehydes and Ketones with Oxygen Nucleophiles - *CC BY-NC-SA 4.0*
- 7.9: Reactions with Nitrogen Nucleophiles - *CC BY-NC-SA 4.0*
- 7.10: Carboxylic Acids and Derivatives - *CC BY-NC-SA 4.0*
- 7.11: Infra-red Spectra as Evidence of Carboxylic Acid Derivative Structure - *CC BY-NC-SA 4.0*
- 7.12: Relative Reactivities of Carboxylic Acids and Derivatives - *CC BY-NC-SA 4.0*
- 7.13: Reactions at the Carbonyl Group of Acid Derivatives with Irreversible Nucleophiles - *CC BY-NC-SA 4.0*
- 7.14: Nucleophilic Addition and Elimination Reactions of Acids and Derivatives - *CC BY-NC-SA 4.0*
- 8: Conjugated compounds and aromaticity - *CC BY-NC-SA 4.0*
  - 8.1: Reactions of Substituted Benzenes- Reaction at the Benzylic Position - *Undeclared*
  - 8.2: Pericyclic reactions - *Undeclared*
  - 8.3: In-Text References - *Undeclared*
  - 8.4: UV-VIS Spectroscopy and Conjugated Systems- Review - *Undeclared*
  - 8.5: Aromaticity - *Undeclared*
  - 8.6: What is aromaticity and how do we recognize aromatic systems? - *Undeclared*
  - 8.7: Aromatic Ions - *Undeclared*
  - 8.8: Heterocyclic Aromatic Compounds - *Undeclared*
  - 8.9: Spectroscopy of Aromatic Compounds- - *Undeclared*
  - 8.10: Reactions of Aromatic Compounds- Introduction of one group onto the ring - *Undeclared*
  - 8.11: Multiple Substituents- Directing Effects - *Undeclared*
  - 8.12: Nucleophilic Substitutions on Aromatic Systems- Expanding the range of potential substitution products - *Undeclared*
- 9: A return to the carbonyl - *CC BY-NC-SA 4.0*
  - 9.1: Reactions of Enols and Enolates - *CC BY-NC-SA 4.0*
  - 9.2: The Aldol Reaction - *CC BY-NC-SA 4.0*
  - 9.3: The Claisen Condensation - *CC BY-NC-SA 4.0*
  - 9.4:  $\beta$ -Ketoacids Decarboxylate - *CC BY-NC-SA 4.0*
  - 9.5: Biosynthesis of Fatty Acids- - *CC BY-NC-SA 4.0*
  - 9.6: Michael Reactions - *CC BY-NC-SA 4.0*
  - 9.7: Glycolysis - *CC BY-NC-SA 4.0*
  - 9.8: Glycolysis- From Glucose to Fructose - *Undeclared*
  - 9.9: In-Text References - *Undeclared*
- Back Matter - *CC BY-NC-SA 4.0*
  - Index - *CC BY-NC-SA 4.0*
  - Glossary - *CC BY-NC-SA 4.0*
  - Detailed Licensing - *Undeclared*