CHAPTER OVERVIEW

Appendix I: Index of enzymatic reactions by pathway

While Organic Chemistry With a Biological Emphasis is organized, like most sophomore-level organic chemistry texts, around a structural and mechanistic framework, students of biochemistry may often want to clarify the mechanism of an enzymatic reaction which they encounter when studying the central metabolic pathways. An excellent resource for this purpose is John McMurry's The Organic Chemistry of Biological Pathways (Roberts and Company, 2005), but also helpful will be this index of enzymatic reactions organized by pathway, with links to sections/problems in this text where the reaction mechanism is addressed. Sections/problems listed with an asterisk (*) do not discuss the exact reaction indicated, but do discuss a closely related reaction.

EC numbers are provided whenever possible, with links to the corresponding page in the BRENDA database of enzymes. Clicking on the 'reaction flask' icon on a BRENDA page brings up the reaction diagram.

NOTE: content below redirects to an older edition of the text, which differs from the current version in some content and organization.

Pathways

Topic hierarchy

- Amino acid biosynthesis
- Amino acid catabolism
- Citric Acid Cycle
- Fatty acid metabolism
- Glycolysis, Gluconeogenesis, Fermentation
- Isoprenoid biosynthesis
- Nucleoside biosynthesis
- Nucleotide catabolism
- Pentose Phosphate Pathway, Calvin Cycle

Organic Chemistry With a Biological Emphasis by Tim Soderberg (University of Minnesota, Morris)