

Chapter 14 - 16 Review Strategy

New Functional Groups:

(nomenclature, structure, properties, preps, reactions)

organometallics

ethers, epoxides

sulfur analogs: thiols, sulfides

oxidized sulfur groups: disulfides, sulfoxides, sulfones

New Reactions

(functional group interconversions, mechanisms, regiochemistry, stereochemistry, applications)

C-C bond-forming reactions:

Grignard syntheses

organocopper coupling

carbene cycloadditions

organic redox reactions

reductions to alcohols

oxidations of alcohols

oxidations at sulfur

vic-diol formation and oxidation

ester formation, including inorganic esters

ether formation by condensation of alcohol

ether cleavage by strong acid

epoxide additions:

acid / base catalysis

regiochemistry / stereochemistry

New Concepts

carbenes

retrosynthetic analysis

crown ether catalysis