

Stereochemistry

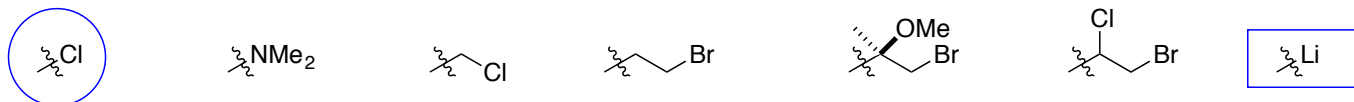
from chapter(s) _____ in the recommended text

A. Introduction

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B. Priority Rules

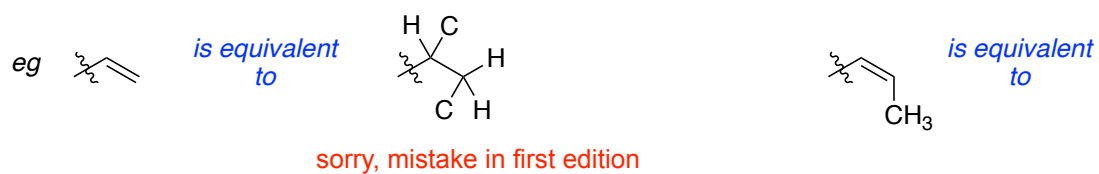
higher atomic mass takes priority.

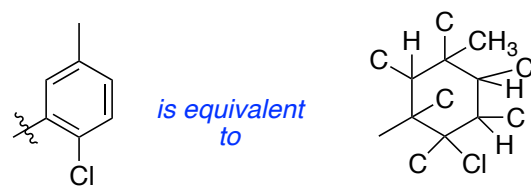
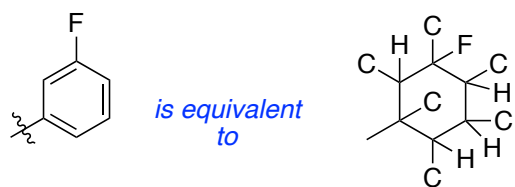
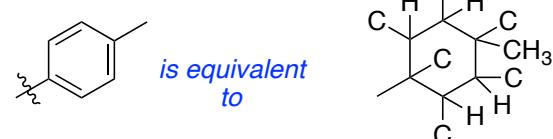


Substituents Connected Multiple Bonds



The problem is: the first atom of the substituents is the same for every molecule.

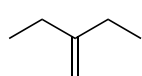




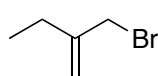


C. Classifying Alkene Geometries

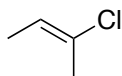
means the same as E/Z.



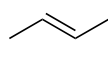
na



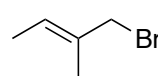
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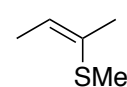
E-



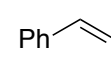
E-



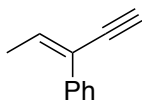
E-



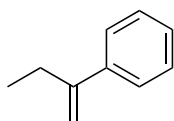
Z-



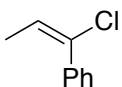
Z-



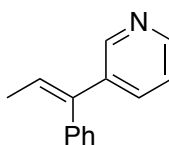
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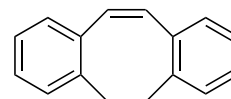
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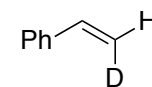
E-



E-



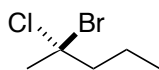
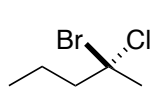
Z-



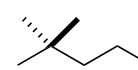
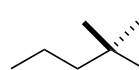
Z-

D. Chiral Centers

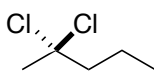
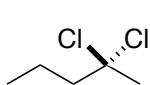
eg



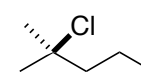
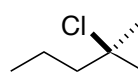
yes/no



yes/no



yes/no

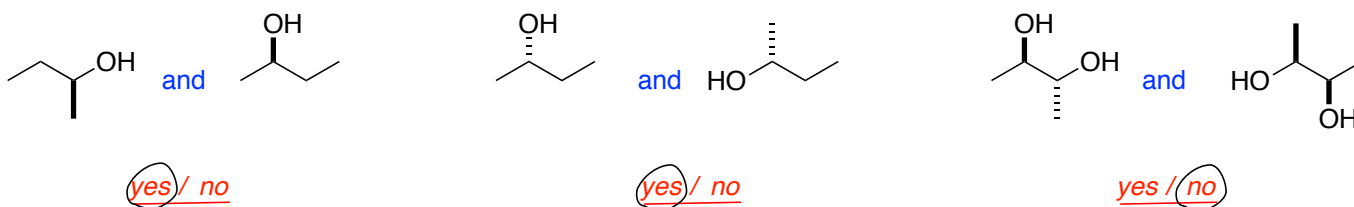
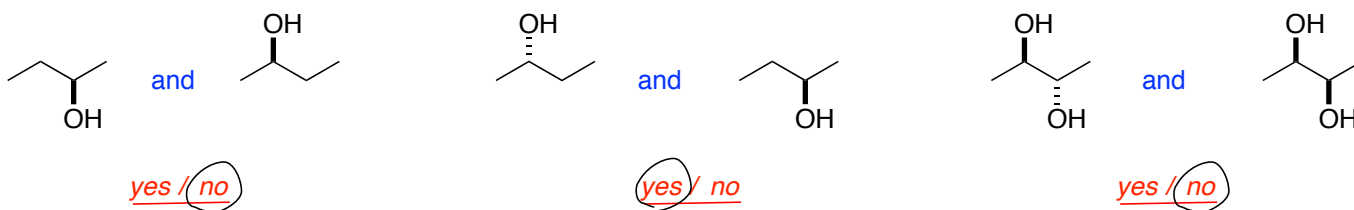
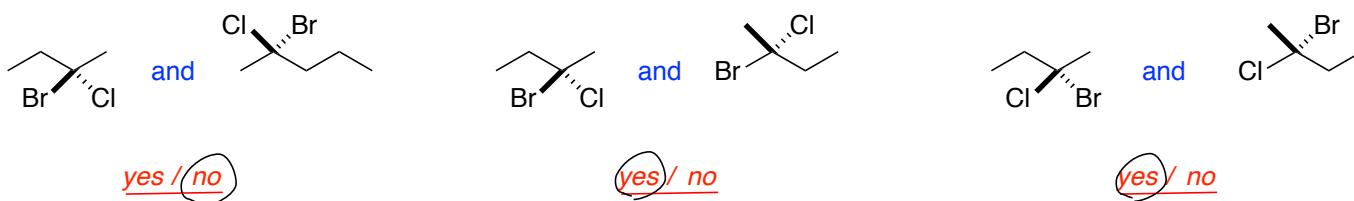
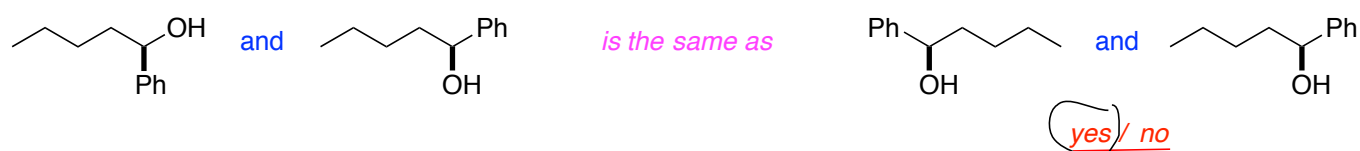


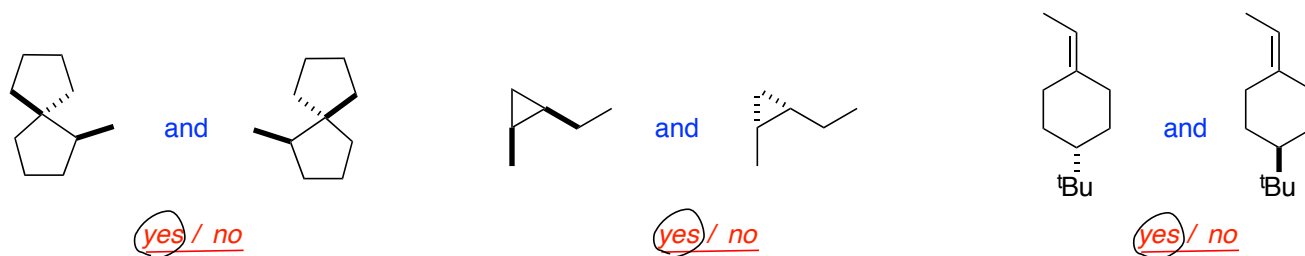
yes



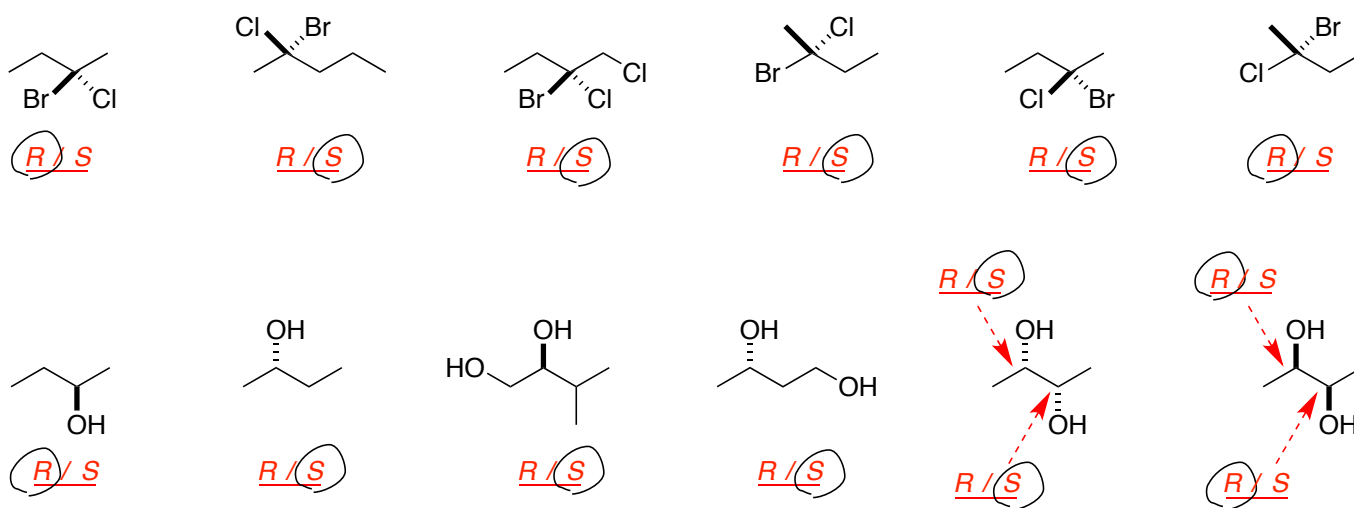
do not absolutely (remove) require that there be four different groups on a carbon atom.
enantiomers, only if

eg





can



always S-.
 always S,S-.
 an S,S-configuration.

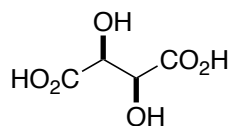
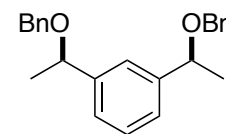
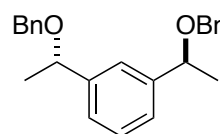
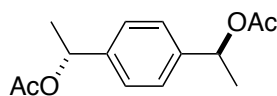
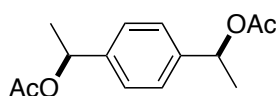
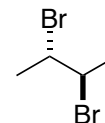
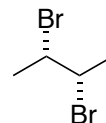
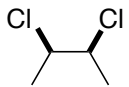
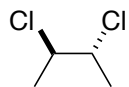
do
optical rotation,
compound concentration / temperature / wavelength of the light / solvent.

E. Combinations Of Chiral Centers

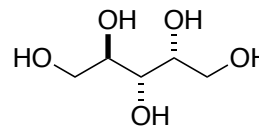
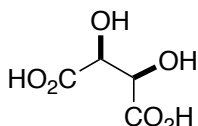
Meso-compounds *have*

do not rotate

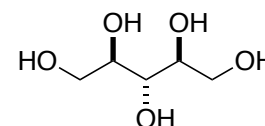
true



tartaric acid

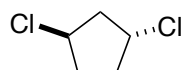


should be this structure in the book

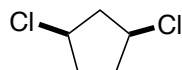


see errata there is a mistake in this structure in the first edition of the book

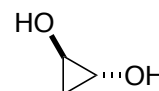
should be this structure in the book



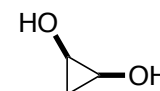
see errata there is a mistake in this structure in the first edition of the book

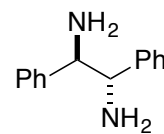
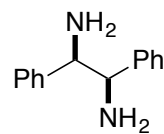
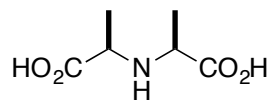
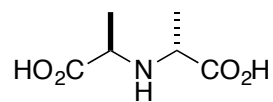


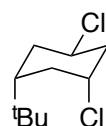
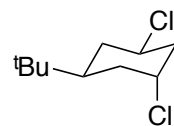
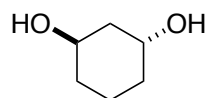
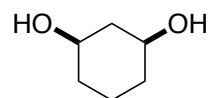
should be this structure in the book

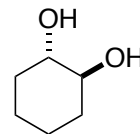
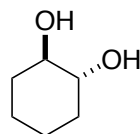
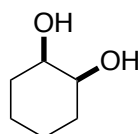
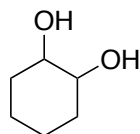


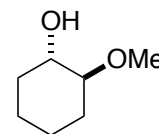
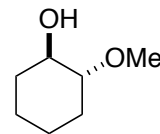
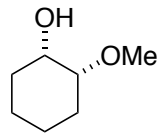
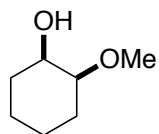
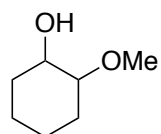
see errata there is a mistake in this structure in the first edition of the book





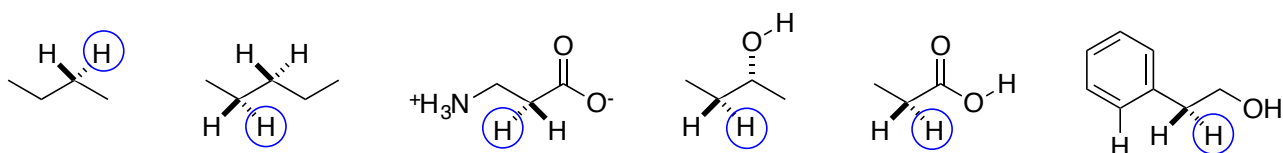
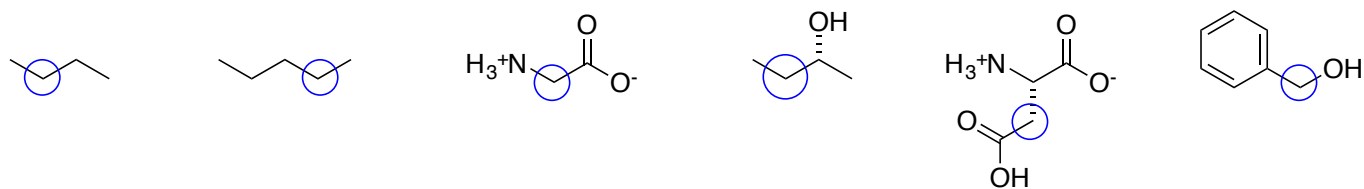




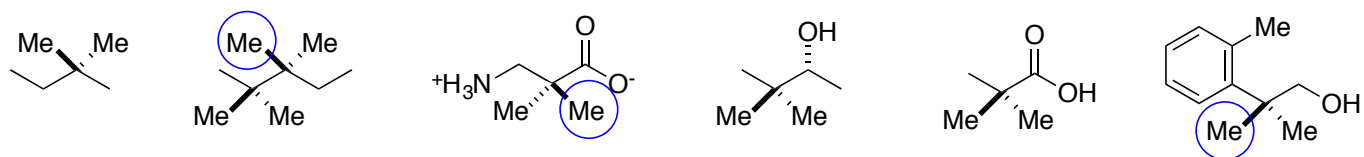


F. Prochirality

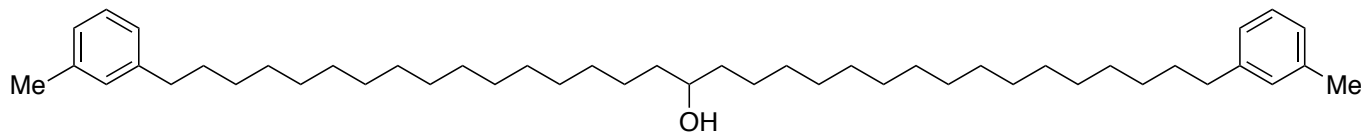
do not
true.



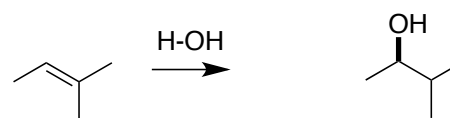
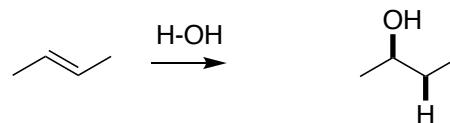
all pro-R.



are all pro-S.

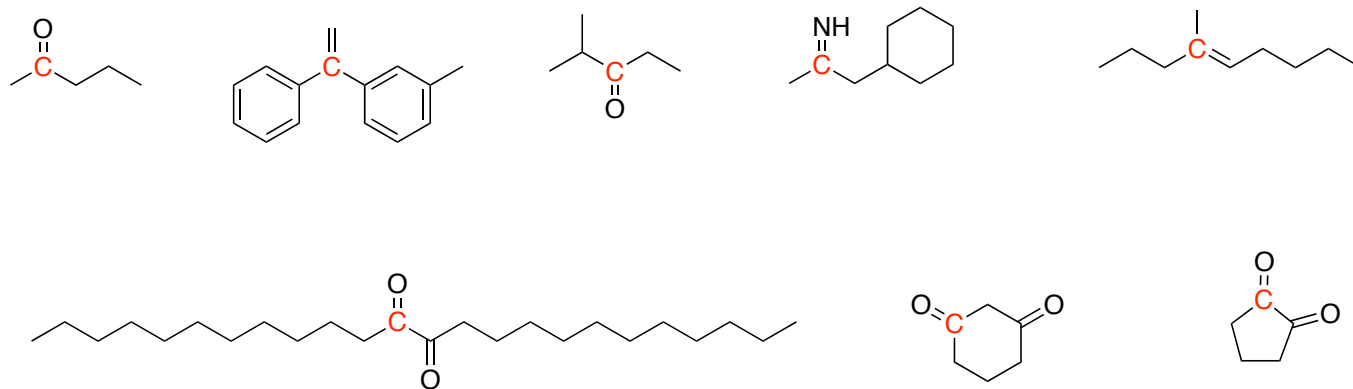


are prochiral.



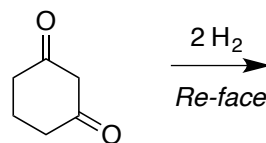
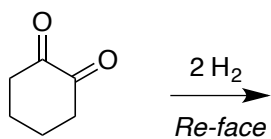
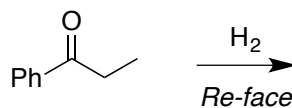
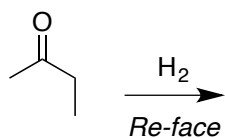
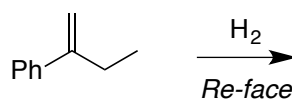
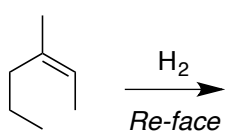
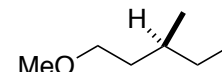
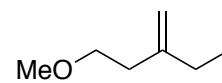
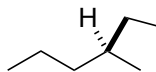
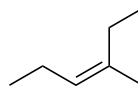
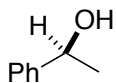
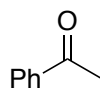
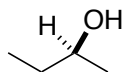
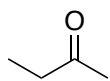
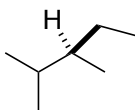
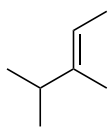
true.

all Re-



sorry, mistake in first edition of book

all Si-



sometimes gives the R-chiral
sometimes gives the S-chiral centers.