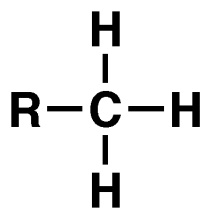
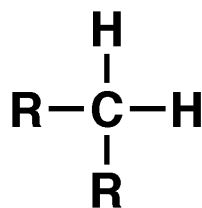


Classifying sp^3 Carbon Atom Type by C-C Connectivity

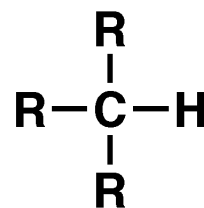
<u>Primary carbon</u>	(<u>1°</u>) bonded to one other C
<u>Secondary carbon</u>	(<u>2°</u>) bonded to two other C
<u>Tertiary carbon</u>	(<u>3°</u>) bonded to three other C
<u>Quaternary carbon</u>	(<u>4°</u>) bonded to four other C



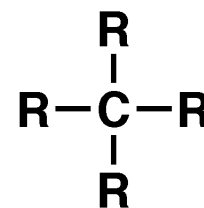
1°



2°



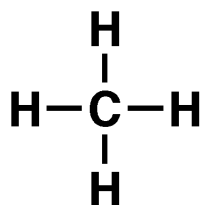
3°



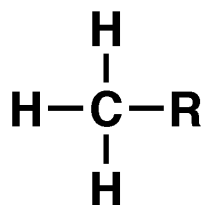
4°



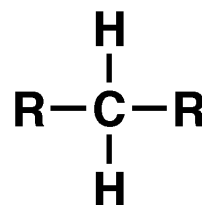
Classifying sp^3 carbon-atom-type by C-H connectivity



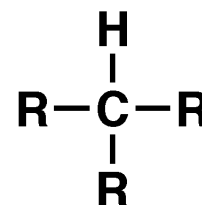
methane



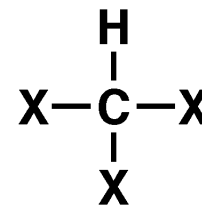
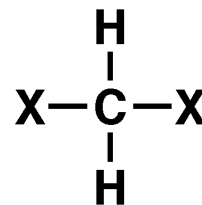
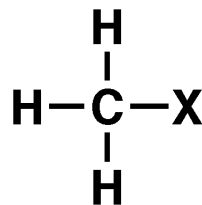
methyl



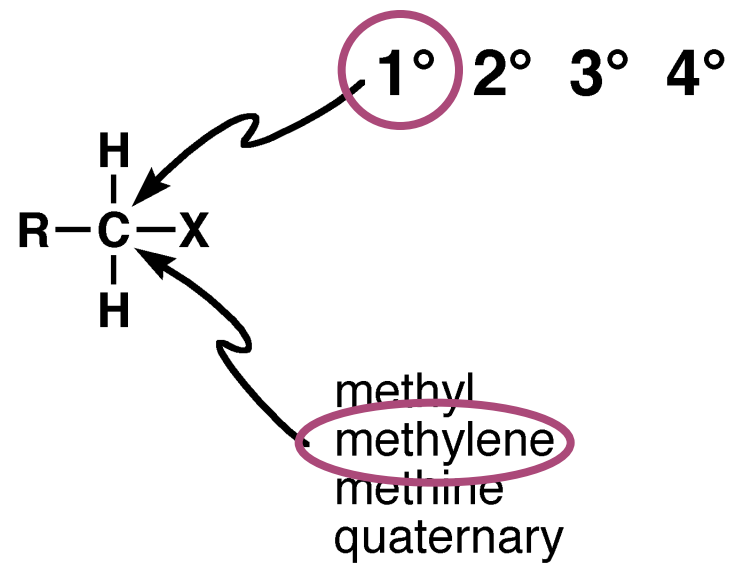
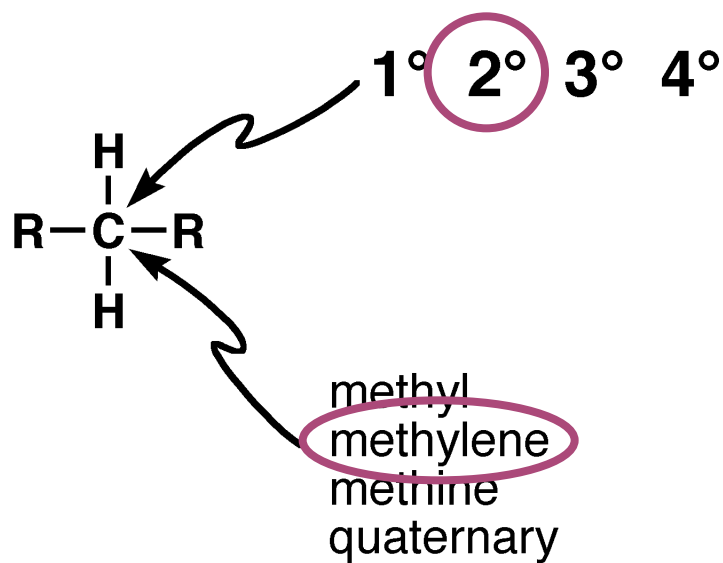
methylene



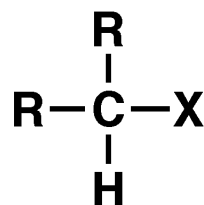
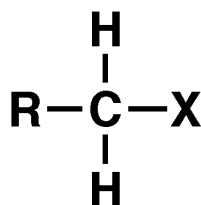
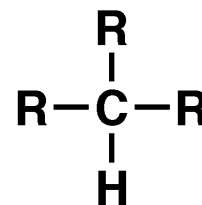
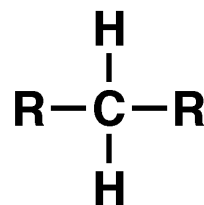
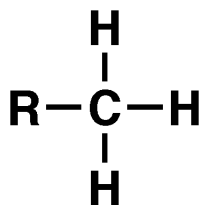
methine



Comparing Classification Schemes



Classifying hydrogen-atom-type by C-C connectivity

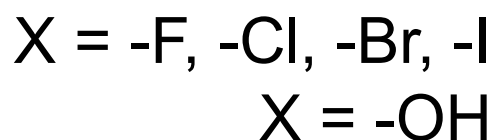
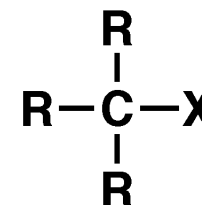
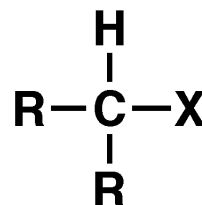
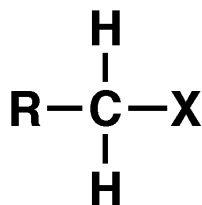


1° hydrogen

2° hydrogen

3° hydrogen

Classifying Halides and Alcohols by C-C Connectivity



1° halide
1° alcohol

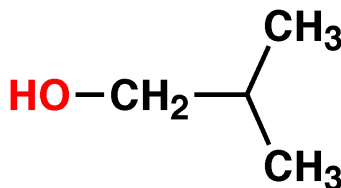
2° halide
2° alcohol

3° halide
3° alcohol

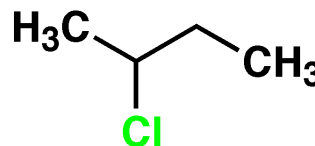
Used for naming compounds that contain butyl structural units:



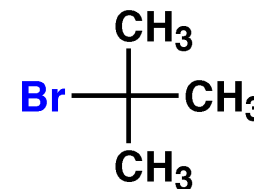
n-butyl alcohol



isobutyl alcohol
(i-butyl alcohol)



sec-butyl chloride
(s-butyl chloride)

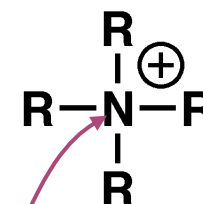
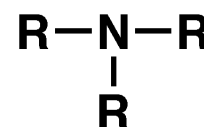
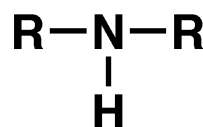
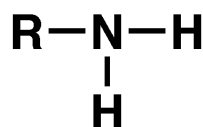


tert-butyl bromide
(t-butyl bromide)

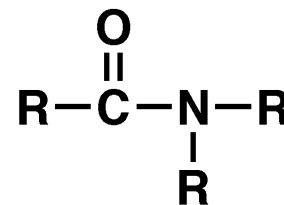
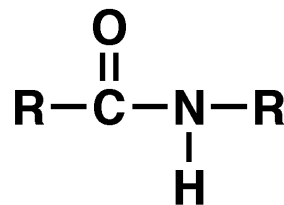
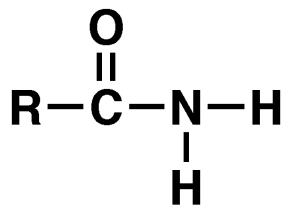
Classifying sp^3 nitrogen-atom-type by C-N connectivity

For amines and amides, the notation 1° , 2° , 3° , and 4° refers to the number of N-C bonds

amines



amides



X

1°

2°

3°

4°

The ium suffix denotes “+” charge: quaternary ammonium ion

The ide suffix denotes “-” charge