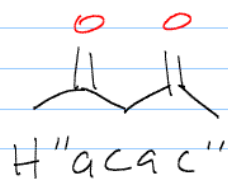
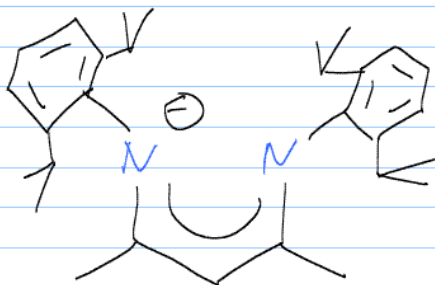


Lecture 2 - Roosty Al

Note Title

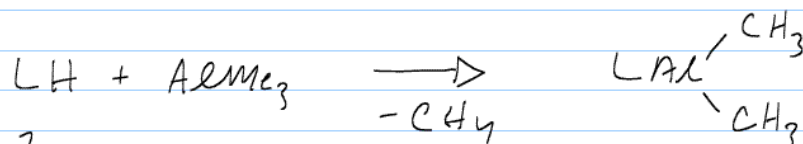
2/3/2005

- Al(I)
- 2-coord.
- carbene analog

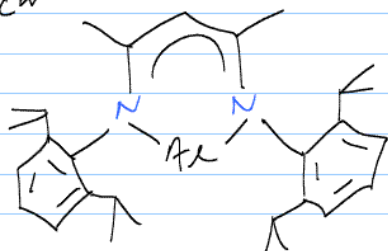


"Nachac"
= L

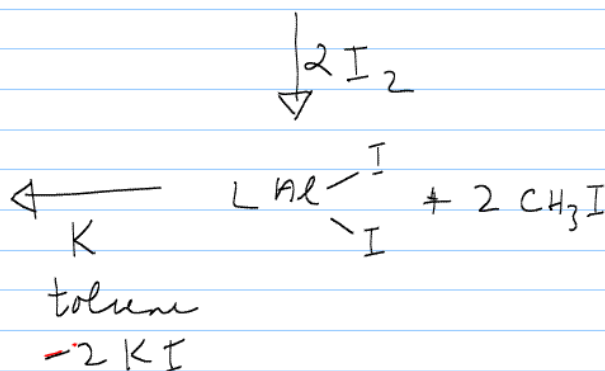
Alumination:



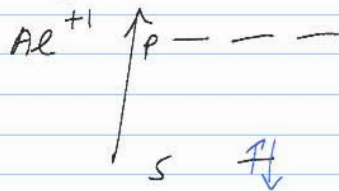
singlet?
carbene?



red

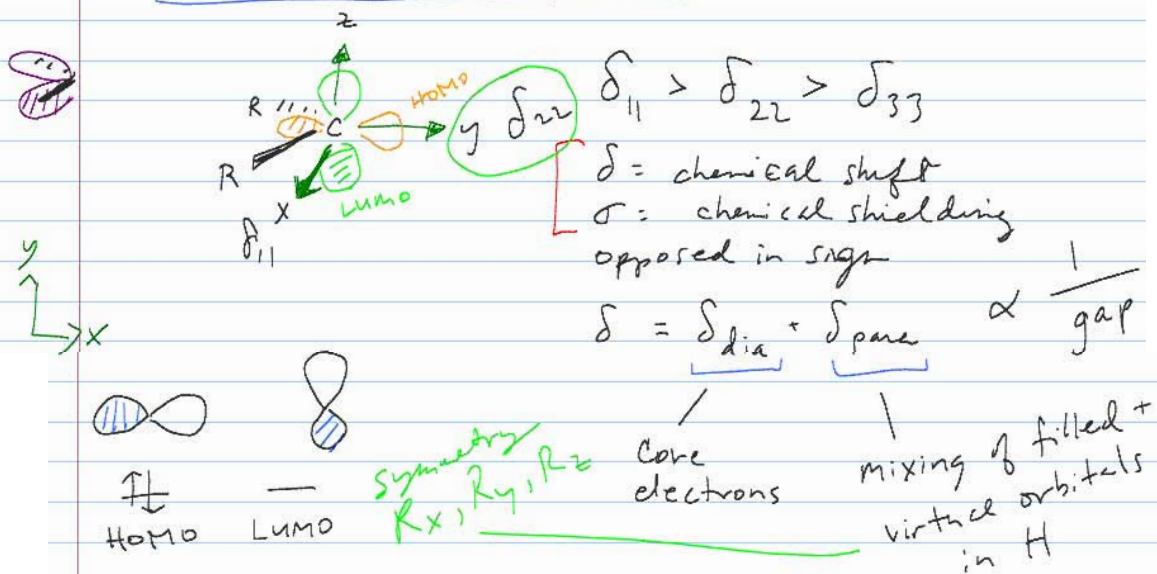


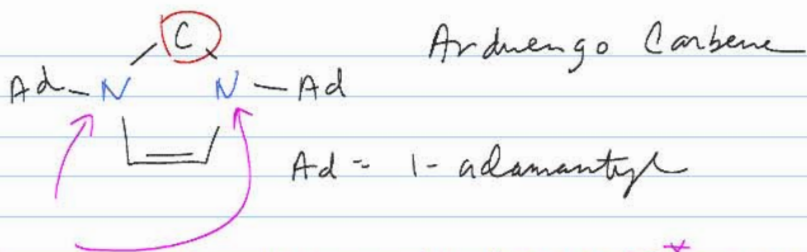
- Singlet - triplet gap
large valence s-p splitting for Al



- No EPR signal
- ²⁷Al - no signal observed
 - $\delta = +590$ ppm
 - range: $-180 \rightarrow +850$ ppm
 - ^tBu₃SiAl $\delta =$ ↗

Chemical Shielding for Carbenes

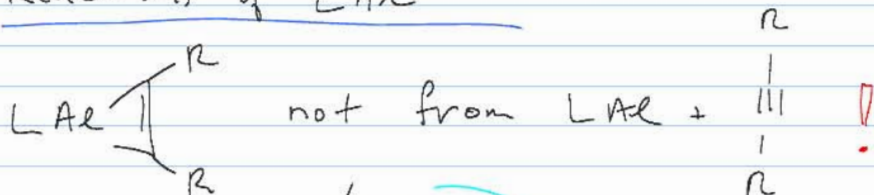




Lone-pair donation makes LUMO π^* , raises its energy.

δ_{11} for CH_2 far downfield relative to δ_{11} for NHC.

Reactions of LAL



Al-cyclopropene

