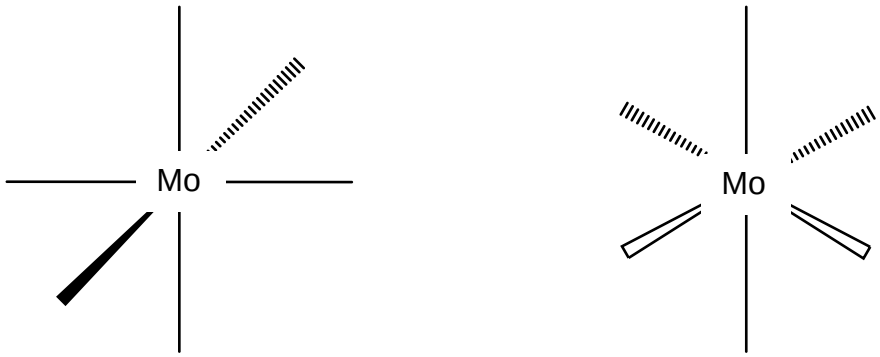
Project 1 – Hand in September 5th

CDB search/understanding steric parameters from X-ray crystal structures of Phosphine ligands

I. Structure/function relationships are foundational to chemistry and reactivity. This project asks for you to search The Cambridge Structural Database (CSD) for structures of $Mo(CO)_4(PR_3)_2$. Using the WebCSD viewer (or Mercury if you have access to that program), look up the following structures (codes are given).

a) BAYQIB
b) BILMIS
c) BILMOY
d) POG MIH
e) POG MIH01
f) VIQZUR

Using the appropriate templates below, give a ChemDraw structure of each as well as the P–Mo–P angles for each and the Mo–P distances. Note: Octahedra are presented in two orientations.



II. Now, search for one $Mo(CO)_3(PR_3)_3$ structure and tell us about it.