1. Consider end-on binding of dinitrogen to the bent metalloocene fragments \([\text{Cp}_2\text{Zr}]\) and \([\text{Cp}_2\text{Zr}]^{2+}\). Which fragment is more likely to bind \(\text{N}_2\)?

2. Consider end-on binding of dinitrogen to the bent diphosphine fragment \([\text{Ni}(\text{PR}_3)_2]\) and the tetrahedral fragment \([\text{Ni}(\text{PR}_3)_4]\). Which fragment is more likely to bind \(\text{N}_2\)?

3. Given that Mo(VI) forms very strong bonds with nitrides, such as in the molecule shown below, evaluate the stability of the related Cu and Sc complexes: