

INORGANIC CHEMISTRY - PROBLEM SET 4

(Due Friday, December 6)

1. For the following acids and bases, write the correct formula of the corresponding acidic or basic anhydride (hint: these are oxides).



2. Describe the inert pair effect. Determine the most common oxidation states of the “cations” of the following elements.

In

Te

Si

Pb

At

3. Compare the properties of white and red phosphorous. How do their properties relate to their molecular structures?
4. What is meant by an amphoteric oxide? Describe this term as it applies to Al_2O_3 .