

Notes 02/08

Friday, February 08, 2008
9:52 AM



Notes 0208

Audio recording started: 10:00 AM Friday, February 08, 2008

Review for Midterm

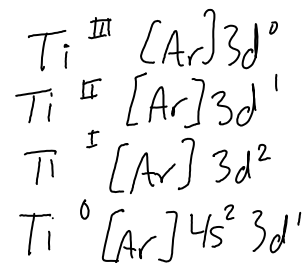
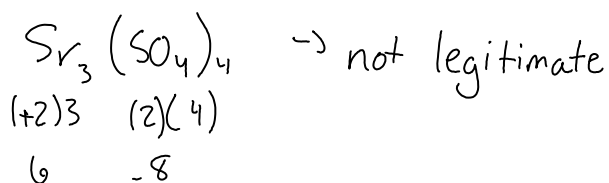
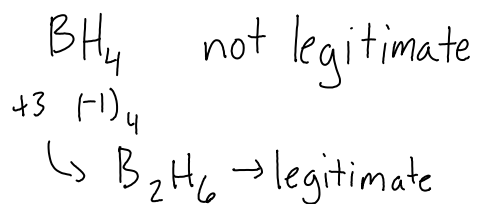
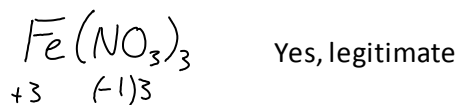
MO:

Type of crystalline solids

Lattice energy

Symmetry elements (inversion center is not important to determine point group).

Determine if Legitimate Formula (Oxidation states and charges & polyatomic ions)



$\text{Ti}^{\text{IV}} \rightarrow \text{not possible goes because would break into } [\text{Ar}] \text{ shells.}$

CO₂ Identify orbitals responsible for sigma & pi bonds

SiO₂ - extended structure

CO₂ - molecule

SnO₂ - extended structure

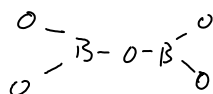
GeO₂ - extended structure

Extended structure or molecule?

LaC₂ - ionic solid (bad example)

K₂O - ionic solid

B₂O₅ - extended structure
bad



Boron is not hypervalent

Na₄⁺B₂O₅⁴⁻ - molecular ion / ionic solid

Fe - metallic solid

Cu Fe - metallic solid

Fe₂O₃ - controversial
↳ covalent perhaps not on exam