**Homework #4: Chemistry 1013 Spring 2011**

**Due Wednesday 16 February 22 pts**

**ANSWERS**

**4.1. Draw the best Lewis structure for COCl2 (mustard gas) using the Lewis rules and the 2 rules of thumb. (2 pts)**

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**:Cl -C=O:**

**..**

**4.2. Draw the best Lewis structure for SiO2 (sand) using the Lewis rules and the 2 rules of thumb.**

**(2 pts)**

**.. ..**

**:O-Si=O:**

**4.3. Draw the best Lewis structure for H2SO3 (sulfurous acid) [ assume the S is in center of molecule surrounded by an O and two O-H (2 pts)**

**.. ..**

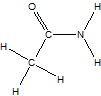
**H-O-S=O:**

**..**

**4.4. Draw a reasonable organic compound that follows the HONC rules for the compound formulas below (more than one may be possible) 2 pts each / 8 pts total**

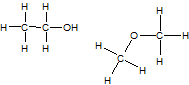
1. **C2H6O b) C2H4 c) C3H6O d) C2H5NO**

Other structures accepted that satisfied HONC rules







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