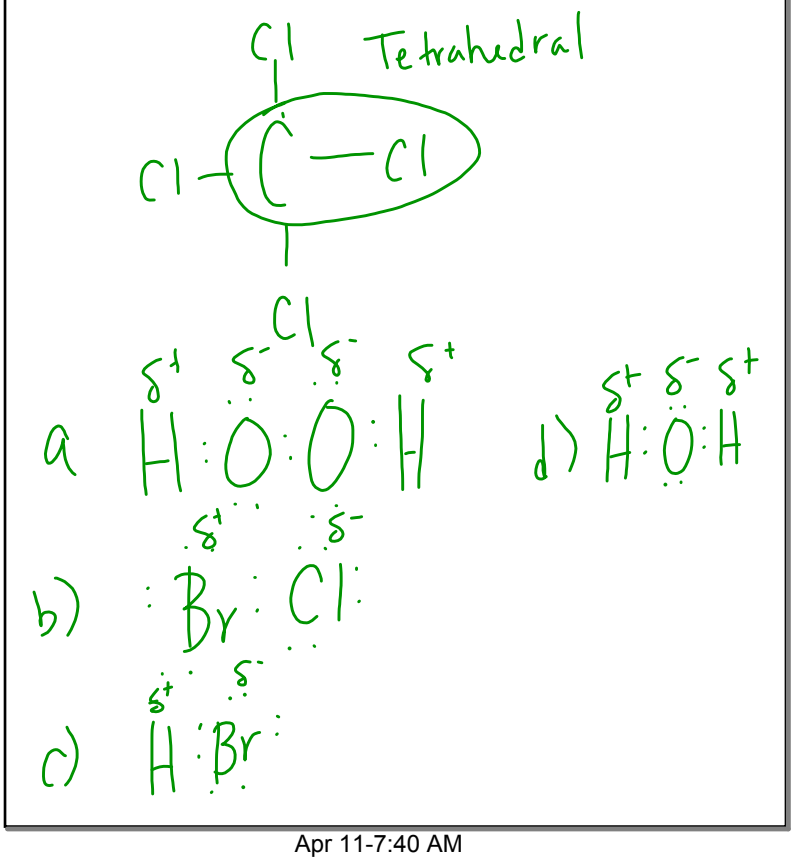
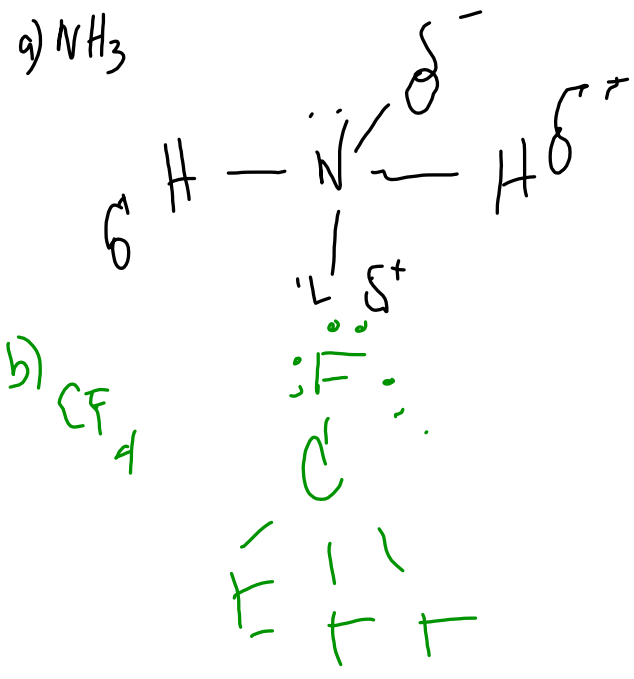
p. 244 #32-37



Apr 11-7:40 AM

Monday, Nov 27
Quiz Wednesday

Go over - Practice problems 8.3 & 8.4



Nov 27-10:32 AM

Nov 27-11:10 AM

Chapter 8 Review

Lewis Structures, Shapes and Polarity - W319 a-c, e-f, i, j

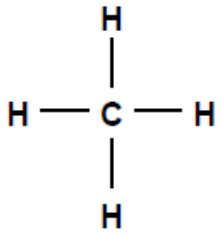
p. 247-249

#54, 57-59, 61, 63-65, 68-69, 70, 75, 79

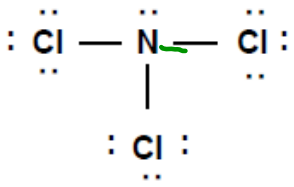
Oct 28-9:23 PM

CH_4 NCl_3 OCl_2F_2

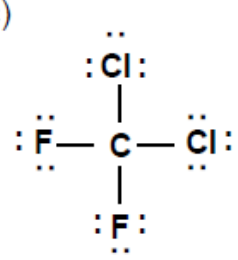
(a)



(b)



(c)



tetraheral

non polar

trigonal pyramidal

polar

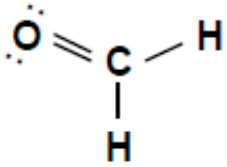
tetrahedral

polar

Nov 28-10:07 AM

CH_2O

(e)



(f) $H-C\equiv N:$

trigonal planar

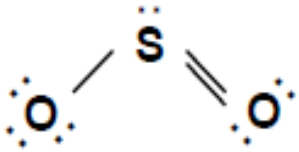
polar

linear, polar

Nov 28-10:11 AM

SO_2

(i)

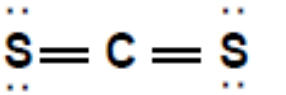


bent

polar

CS_2

(j)



linear,

non-polar

Nov 28-10:12 AM

p. 247-249

#54, 57-59, 61, 63-65,

54. a) linear

b) tetrahedral

c) trigonal planar

d) bent

e) linear

f) bent

57. Between 0.4-2.0

58. c,d,a,f,b,e

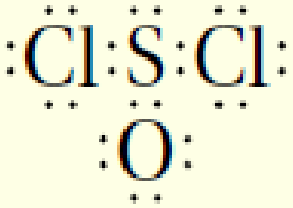
59. A hydrogen bond is formed by an electrostatic interaction between a hydrogen atom that is covalently bonded to an electronegative atom, and an unshared electron pair of a nearby atom.

Nov 28-10:13 AM

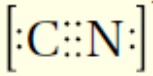
61, 63-65,

61. More energy is required to separate the molecules

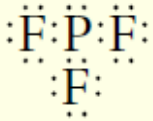
63.



64. a. C does not have an octet.



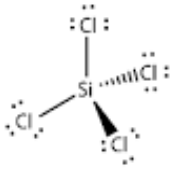
b. One F has more than an octet.

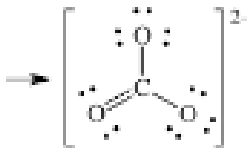


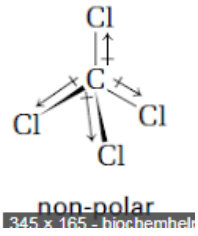
Nov 28-10:18 AM

65. Use VSEPR theory to predict the geometry of each of the following.

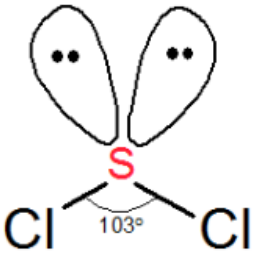
a. $SiCl_4$ **b.** CO_3^{2-} **c.** CCl_4 **d.** SCl_2







non-polar



a. tetrahedral 109.5

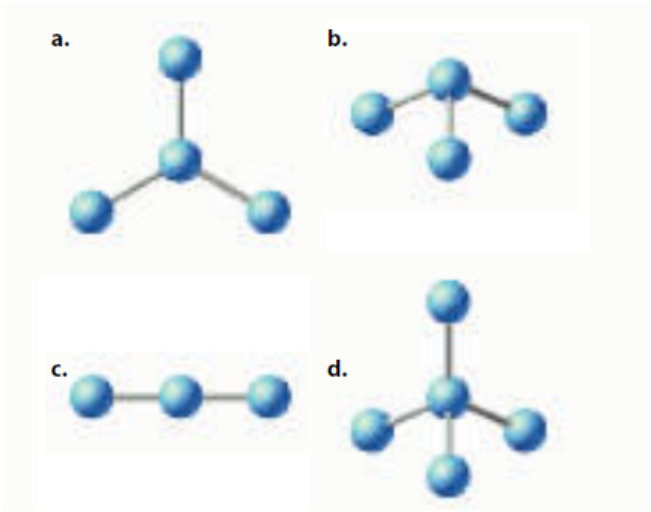
b. trigonal planar, 120

c. tetrahedral 109.5

d. bent 105

Nov 28-10:21 AM

68-69,



a. trigonal planar

b. pyramidal

c. linear

d. tetrahedral

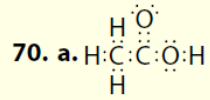
69. Which of the following molecules contains a central atom that does not obey the octet rule?

a. PBr_5
b. AlI_3
c. PF_3
d. $SiCl_4$

Nov 28-10:29 AM

70, 75,

70. a.



b. No, the molecule contains one carbon-oxygen double bond and one carbon-oxygen single bond.
c. polar bond
d. Yes, it has polar oxygen atoms at one end of the molecule and a nonpolar CH_3^- group at the opposite end.

75. What shape do you expect for a molecule with a central atom and the following?

a. two bonding pairs of electrons and two nonbonding pairs of electrons
b. four bonding pairs and zero nonbonding pairs
c. three bonding pairs and one nonbonding pair

a. bent

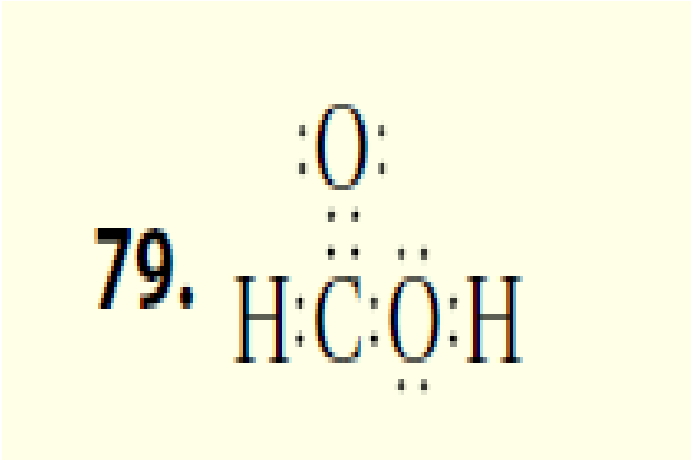
b. tetrahedral

c. pyramidal

Nov 28-10:31 AM

79. Draw the electron dot structure of formic acid, H_2CO_2. The carbon is the central atom, and all the atoms are attached to the carbon except for a hydrogen bonded to an oxygen.

79.

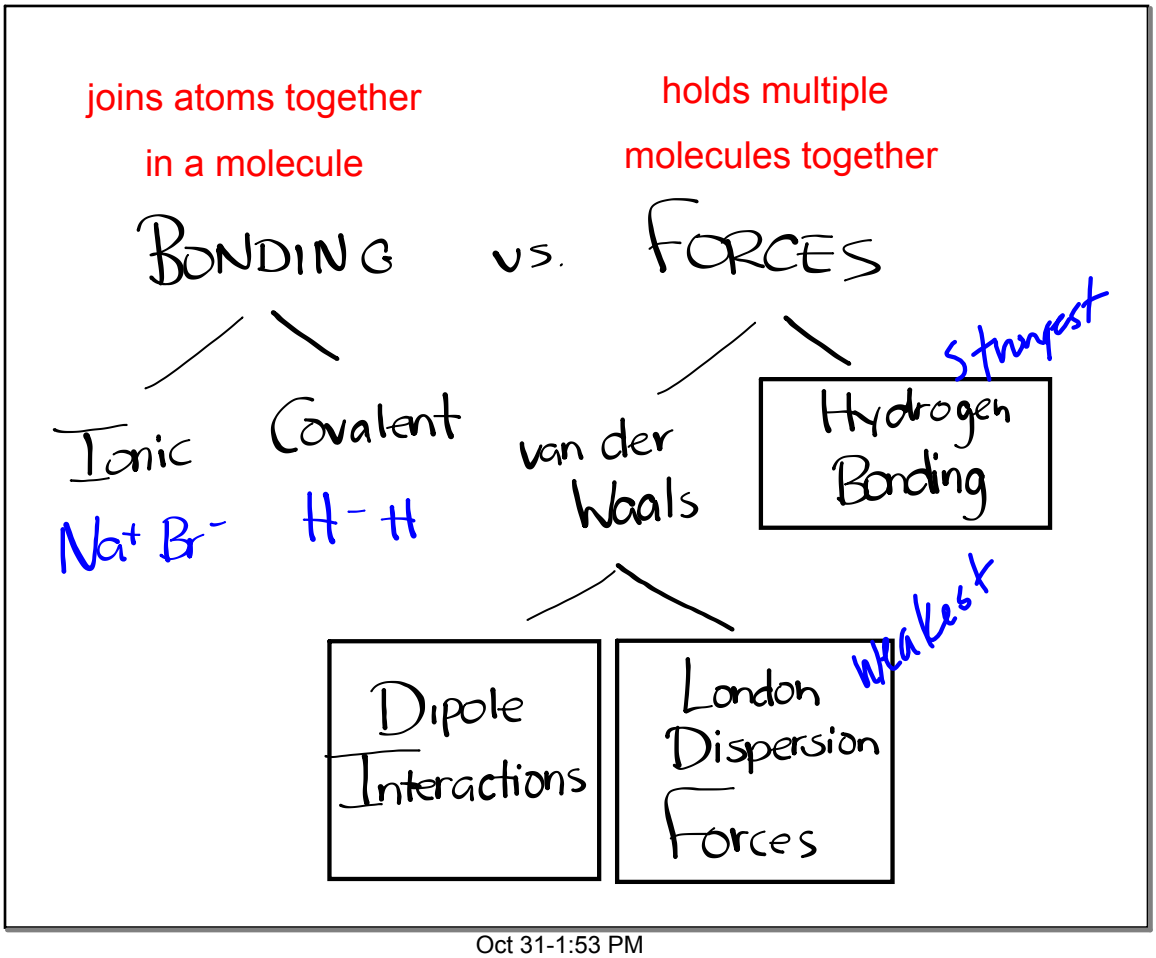


Nov 28-10:34 AM

Chemical Bonding Topics

- Octet Rule
- Electron Dot Structure
- Metallic Bonding
- Covalent Bonding
- Coordinate Covalent Bonding
- VSEPR Theory
- Hybridization
- Polarity
- Intermolecular Forces
- Properties of Ionic Crystals, Covalent Compounds, Network Solids

Oct 30-7:27 AM



Oct 31-1:53 PM

Nov 28-10:40 AM

Chapter 8 Mock Test

Oct 28-8:05 AM

Table 8.3 Electronegativity Differences and Bond Types

Electronegativty difference range	Most probable type of bond	Example
0.0-0.4	Nonpolar covalent	H - H (0.0)
0.4-1.0	Moderately polar covalent	H - Cl (0.9)
1.0-2.0	Very polar covalent	H - F (1.9)
≥ 2.0	Ionic	Na^+ Cl^- (2.1)

Oct 23-8:49 AM

Table 6.2

Electronegativity Values for Selected Elements

H 2.1						
Li 1.0	Be 1.5	B 2.0	C 2.5	N 3.0	O 3.5	F 4.0
Na 0.9	Mg 1.2	Al 1.5	Si 1.8	P 2.1	S 2.5	Cl 3.0
K 0.8	Ca 1.0	Ga 1.6	Ge 1.8	As 2.0	Se 2.4	Br 2.8
Rb 0.8	Sr 1.0	In 1.7	Sn 1.8	Sb 1.9	Te 2.1	I 2.5
Cs 0.7	Ba 0.9	Tl 1.8	Pb 1.9	Bi 1.9		

Oct 23-8:36 AM

Nov 27-10:30 AM