Name

AP Chemistry

Lewis Dot

Objectives:

c. Students will be able to draw out Lewis Dot structures.

d. Students will be able to use a Lewis dot diagram to justify the sharing of electrons.

e. Students will be able to discriminate between bond qualities of various covalent compounds(bond energy, Length, order)

f. Students will be able to provide Resonance structures.

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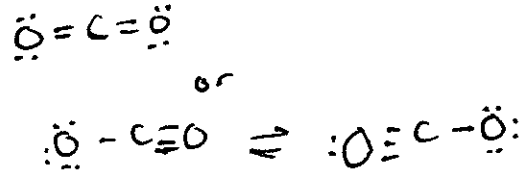
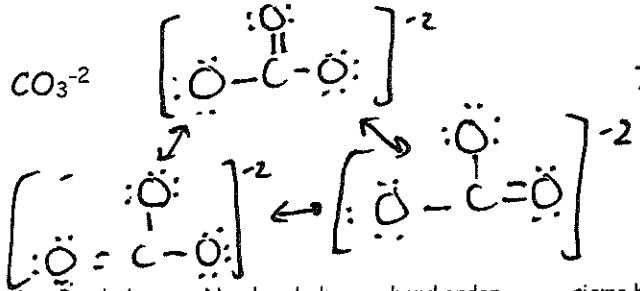
1. CO_2



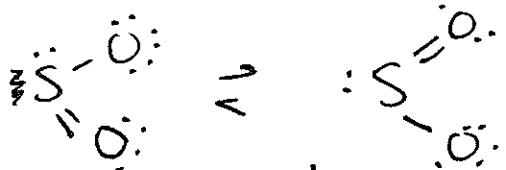
Domains: Bonded: 2 Non-bonded: 0 bond order 2 ~~Domains: Bonded~~ (sigma): 1 ~~Non-bonded~~ (pi): 1 bond order 2

2. CO_3^{-2}



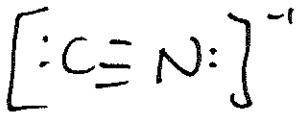
Domains: Bonded:____ Non-bonded:____ bond order____ sigma bonds: 3 pi bonds 0 bond order 1

3. SO_2 18e



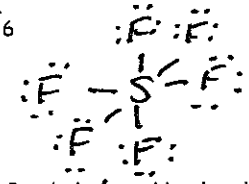
Domains: Bonded: 3/2 Non-bonded: 1 bond order 1½

4. CN^-



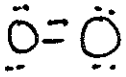
sigma bonds: 1 pi bonds 2 bond order 3

5. SF_6



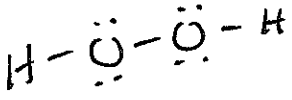
Domains: Bonded: 6 Non-bonded: 0 bond order 1

6. O_2



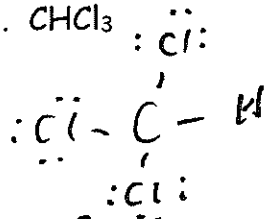
Domains: Bonded: 2 Non-bonded: 0 bond order 2

7. H_2O_2



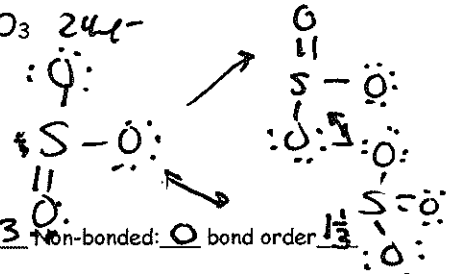
sigma bonds: 3 pi bonds 0 bond order 1

8. $CHCl_3$



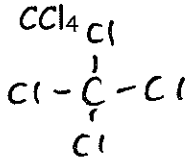
sigma bonds: 3 pi bonds 0 bond order 1

9. SO_3^{2-}



Domains: Bonded: 3 Non-bonded: 0 bond order 1⅓

10. CCl_4



Domains: Bonded: 4 Non-bonded: 0 bond order 1