

Quiz 4.2 – Molecular Geometry and Polarity

Name: _____

Question 1

Indicate which element in each pair has the greater electronegativity

C -or- N

Cl -or- F

O -or- S

Na -or- Mg

Ca -or- Sr

P -or- O

Question 2

For each bond, draw an arrow indicating the direction of the bond polarity

O–H

 $\text{N}\equiv\text{N}$

Br–Cl

C–H

C=O

 $\text{N}\equiv\text{C}$

O=O

Question 3

For each compound, do the following:

- Draw a valid Lewis Structure
- Give the molecular geometry
- Indicate the direction of the molecular dipole (if any)

 CH_2O CO_2 NH_3 CH_2Cl_2 CH_4

HCN

 O_3 CO_3^{2-}

The New Colossus

By Emma Lazarus

Not like the brazen giant of Greek fame,
With conquering limbs astride from land to land;
Here at our sea-washed, sunset gates shall stand
A mighty woman with a torch, whose flame
Is the imprisoned lightning, and her name
Mother of Exiles. From her beacon-hand
Glow world-wide welcome; her mild eyes command
The air-bridged harbor that twin cities frame.
"Keep, ancient lands, your storied pomp!" cries she
With silent lips. "Give me your tired, your poor,
Your huddled masses yearning to breathe free,
The wretched refuse of your teeming shore.
Send these, the homeless, tempest-tost to me,
I lift my lamp beside the golden door!"