

Ch. 9 Molecular Bonding and Geometry Theories

What is the range for these bonds?

Non – polar:

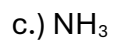
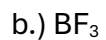
Polar:

Ionic:

Fill in the chart:

| e- domain geometry | Molecular geometry | Bond angle | Hybridization |
|--------------------|--------------------|------------|---------------|
| Linear | | | |
| Trigonal Planar | | | |
| Trigonal Planar | | | |
| Tetrahedral | | | |
| Tetrahedral | | | |
| Tetrahedral | | | |

Classify the following molecules as one of the molecular geometries mentioned above and confirm by drawing its Lewis dot structure.



Using the VESPR model, give the molecular geometry, bond angles, and hybridization around the central atom in AsCl_3 .

Using the VESPR model, give the molecular geometry, bond angles, and hybridization around the central atom in the nitrite ion (NO_2^{-1}). Draw any other equivalent structures.

From the previous Lewis structures, calculate the formal charge on the central atom.