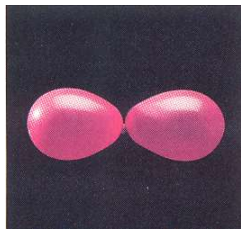
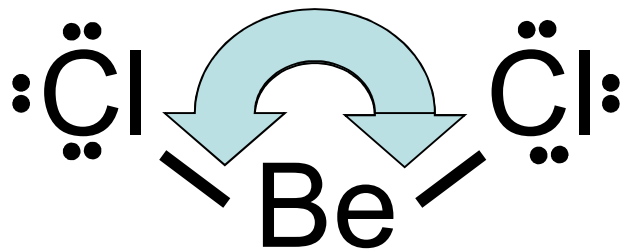


Valence Shell Electron Pair Repulsion (VSEPR Theory)

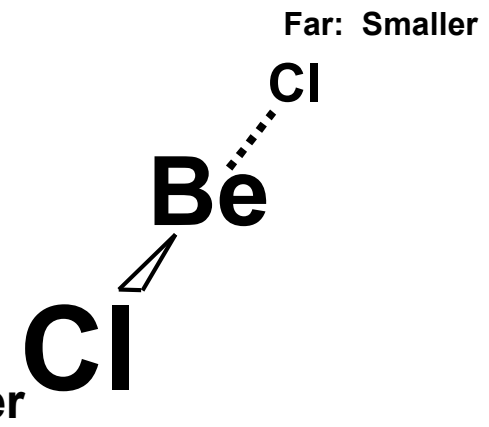
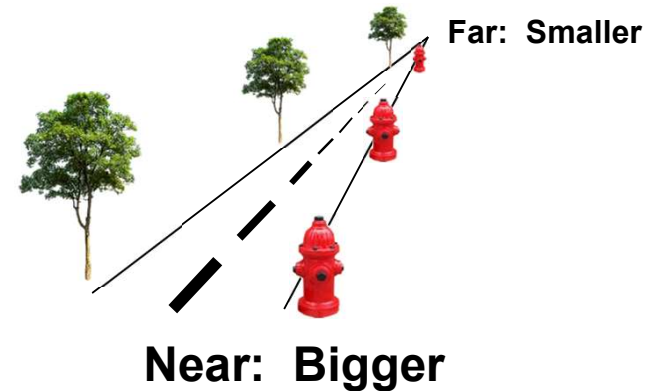
Bonding electrons
repel each other



Two Balloons
Straight Line



Linear Molecule



Valence Shell Electron Pair Repulsion (VSEPR)

1. Molecule



2. Lewis Dot Structure

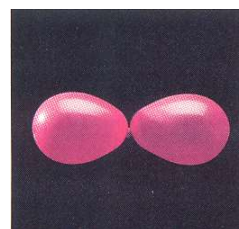


3. # e⁻ regions*

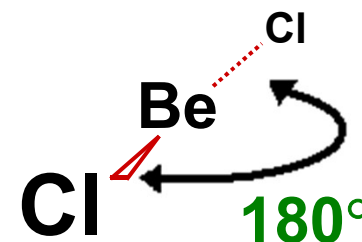
2

4. Electron Geometry

Linear



Two Balloons



5. Bond Angles*
180°

6. # Bonding Regions*
2

7. # Lone Pair Regions*
0

8. Molecular Geometry
Linear

* around center atom

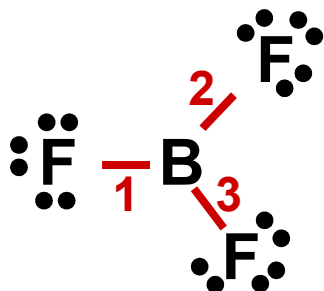


Valence Shell Electron Pair Repulsion (VSEPR)

1. Molecule



2. Lewis Dot Structure



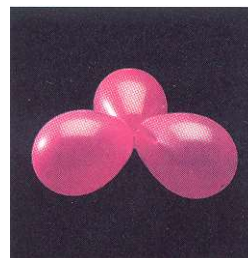
3. # e⁻ regions*

3

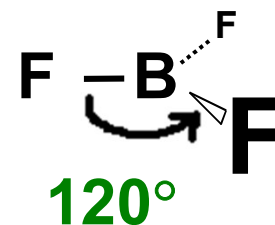


4. Electron Geometry

Trigonal Planar



Three Balloons



5. Bond Angles*
120°

6. # Bonding Regions*
3

7. # Lone Pair Regions*
0

8. Molecular Geometry
Trigonal Planar

* around center atom

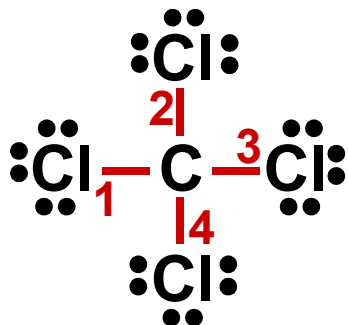


Valence Shell Electron Pair Repulsion (VSEPR)

1. Molecule



2. Lewis Dot Structure

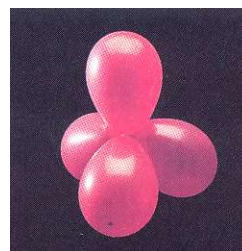


3. # e⁻ regions*

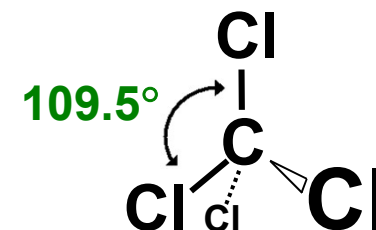
4

4. Electron Geometry

Tetrahedral



Four Balloons



5. Bond Angles*
109.5°

6. # Bonding Regions*
4

7. # Lone Pair Regions*
0

8. Molecular Geometry
Tetrahedral

* around center atom

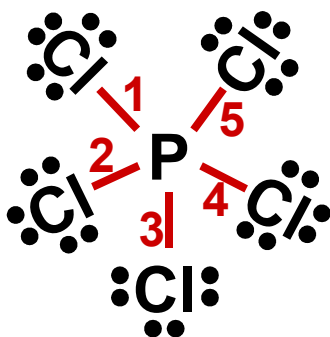


Valence Shell Electron Pair Repulsion (VSEPR)

1. Molecule



2. Lewis Dot Structure



40

Valence e^-

3. # e^- regions*

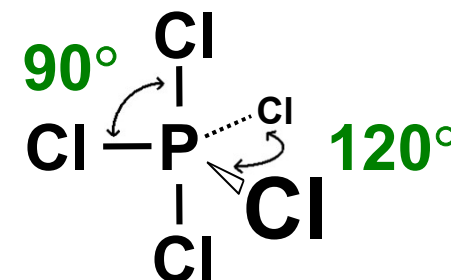
5

4. Electron Geometry

Trigonal Bipyramidal



Five Balloons



5. Bond Angles*

90° 120°

6. # Bonding Regions*

5

7. # Lone Pair Regions*

0

8. Molecular Geometry

Trigonal Bipyramidal 🔊

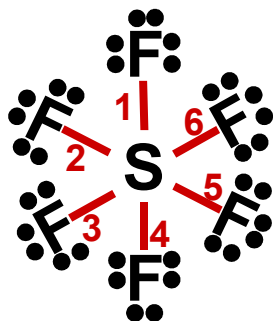
* around center atom

Valence Shell Electron Pair Repulsion (VSEPR)

1. Molecule



2. Lewis Dot Structure

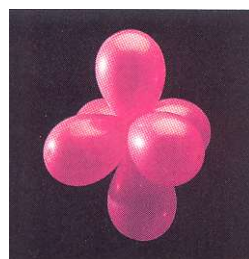


48
Valence e^-

3. # e^- regions*

6

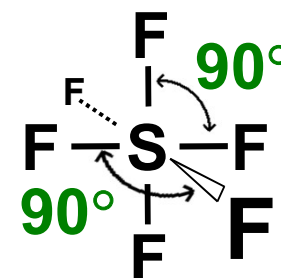
→ Octahedral



Six Balloons

4. Electron Geometry

Octahedral



5. Bond Angles*
 90°

6. # Bonding Regions*
6

7. # Lone Pair Regions*
0

8. Molecular Geometry
Octahedral

* around center atom

