

Molecular Geometries and Polarities

Electron Domains around Center Atom	Electron Geometry	Molecular Geometry	shared pairs	unshared pairs	bond angles (appx)	hybridization (except for complications caused by pi bonds)
Two	linear	linear	2	0	180°	sp
Three	trigonal planar	bent	2	1	120°	sp ²
		trigonal planar	3	0	120°	sp ²
Four	tetrahedral	bent	2	2	104.5°	sp ³
		pyramidal	3	1	107°	sp ³
		tetrahedral	4	0	109.5°	sp ³
Five	trigonal bipyramidal	linear	2	3	180°	sp ³ d
		t-shaped	3	2	90°	sp ³ d
		see saw, distorted tetrahedron or sawhorse	4	1	120°/90°	sp ³ d
		trigonal bipyramidal	5	0	120°/90°	sp ³ d
Six	octahedral	square planar	4	2	90°	sp ³ d ²
		square pyramidal	5	1	90°	sp ³ d ²
		octahedral	6	0	90°	sp ³ d ²