

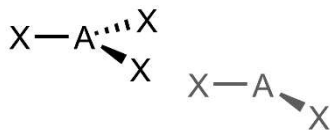
Table 1: Structural geometry of various electron domains



2 Electron Domains: LINEAR

AX₂ coordination: linear

CO₂, N₃⁻, SCN⁻, HCN, BeCl₂



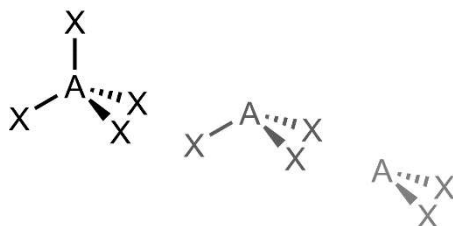
3 Electron Domains: TRIGONAL PLANAR

AX₃ coordination: triangular

BF₃, BCl₃, BI₃, B(CH₃)₂F, GaI₃, In(CH₃)₃

AX₂E coordination: bent

SnCl₂, SnBr₂, SnI₂, PbCl₂, PbBr₂, PbI₂



4 Electron Domains: TETRAHEDRAL

AX₄ coordination: tetrahedral

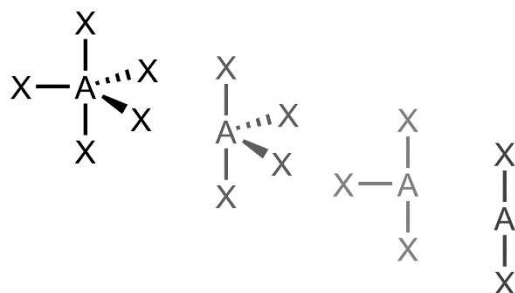
BeX₄⁻, CX₄, NX₄⁺, OBe₄⁻, SiX₄, GeX₄, AsX₄⁺

AX₃E coordination: trigonal pyramidal

NX₃, OH₃⁺, PX₃, AsX₃, SbX₃

AX₂E₂ coordination: bent

OX₂, SX₂, SeX₂, TeX₂



5 Electron Domains: TRIGONAL BIPYRAMIDAL

AX₅ coordination: trigonal bipyramidal

PCl₅, PF₅, PF₃Cl₂, SbCl₅

AX₄E coordination: see-saw

SF₄, SeF₄, R₂SeCl₂, R₂TeCl₂, R₂TeBr₂, TeCl₄

AX₃E₂ coordination: T-shaped

ClF₃, BrF₃, C₆H₅ICl₂

AX₂E₃ coordination: linear

ICl₂⁻, I₃⁻, XeF₂



6 Electron Domains: OCTAHEDRAL

AX₆ coordination: octahedral

SF₆, SeF₆, TeF₆, PCl₆⁻, PF₆⁻, Sb(OH)₆⁻, SbF₆⁻, AsF₆⁻, SiF₆²⁻, Sn(OH)₆²⁻, SnCl₆²⁻, PbCl₆²⁻

AX₅E coordination: square pyramidal

BrF₅, IF₅

AX₄E₂ coordination: square-planar

ICl₄⁻, I₂Cl₆, BrF₄⁻, XeF₄