

Molecular Shapes Practice

Formula	# V.E.	Lewis Dot Structure	Molecular Geometry	Bond Angle	Hybridization of Central atom	Polarity
CS ₂	16		linear	180°	sp	NP
O ₃	18		bent	<120°	sp ²	P
SO ₂	18		bent	<120°	sp ²	P
SO ₃ ²⁻	26		trigonal pyramid	<109.5°	sp ³	P
CH ₂ Cl ₂	20		tetrahedral	109.5°	sp ³	P
NO ₂ ⁻	18		bent	<120°	sp ²	P
Cl ₂ CO	24		trigonal planar	120°	sp ²	P
Formula	# V.E.	Lewis Dot Structure	Molecular Geometry	Bond Angle	Hybridization of Central atom	Polarity
BrO ₃ ⁻	26		trigonal pyramid	<109.5°	sp ³	P
BCl ₃	24		trigonal planar	120°	sp ²	NP
CO	10		linear	180°	C = sp, O = sp ²	P
TeF ₆	48		octahedral	90°	sp ³ d ²	NP
ICl ₂ ⁻	22		linear	180°	sp ³ d	NP
POCl ₃	32		tetrahedral	109.5°	sp ³	P
SOF ₄	40		trigonal bipyramid	90° & 120°	sp ³ d	P
Formula	# V.E.	Lewis Dot Structure	Molecular Geometry	Bond Angle	Hybridization of Central atom	Polarity
XeF ₄	36		square planar	90°	sp ³ d ²	NP
IOF ₅	48		octahedral	90°	sp ³ d ²	P
ClF ₃	28		T-shape	90° & 120°	sp ³ d	P
PF ₄ ⁻	34		see-saw	90° & 120°	sp ³ d	P
IBr ₅	42		square pyramid	90°	sp ³ d ²	P
SbF ₅	40		trigonal bipyramid	90° & 120°	sp ³ d	NP
SF ₄	34		see-saw	90°	sp ³ d ²	P