Electron Domains	Arrangement of Domains	Bond Domains ¹	Lone Pairs	Molecular Shape	Polar? ²
2	linear	2	0	linear [MX ₂]	No
3	trigonal planar	3	0	trigonal planar [MX ₃]	No
		2	1	bent (<120°) [MX ₂]	Yes
4	tetrahedral	4	0	tetrahedral [MX ₄]	No
		3	1	trigonal pyramidal [MX ₃]	Yes
		2	2	bent (<109.5°) [MX ₂]	Yes
5	trigonal bipyramida	ıl 5	0	trigonal bipyramidal [MX ₅]	No
		4	1	irregular tetrahedron [MX ₄]	Yes
		3	2	T-shaped [MX ₃]	Yes
		2	3	linear [MX ₂]	No
6	octahedral	6	0	octahedral [MX ₆]	No
		5	1	square pyramid [MX ₅]	Yes
		4	2	square planar [MX ₄]	No

SHAPES OF MX_n MOLECULES BY V.S.E.P.R. THEORY

¹A single, double, or triple bond constitutes one domain of electron density. Therefore, to establish the number of electron domains about a central atom, count the number of atom-pair linkages and add to this any non-bonding pairs. The need to count domains, rather than simply electron pairs, has prompted the co-author of V.S.E.P.R. theory to rename it the Electron Domain theory. [R. J. Gillespie. *J. Chem. Educ.* **1992**, *69*, 116.]

²Listed polarity is for *binary* compounds (MX_n) only. Composition of ternary (MX_nY_m) and higher compounds may result in polarity for a shape that might be nonpolar if the compound were binary.