

Substances

	I	N	O	R	G	A	N	I	C
bonding modes		Variable 4	Variable 3						Always 4
preferred		3	2						4
		2	1						

ORGANIC

chemical formulas begin with the letter C followed by H

bonding modes	Always					
MOST stable		4	3	2	1	1

Rules of Play for drawing Lewis Dot Structures

Inorganic Substances

1. Always Count Valence Electrons FIRST!
2. If the substance is an acid containing oxygen, the hydrogen is attached to the oxygen atom.
3. Octet Rule is KING! Share your neighboring electrons
4. Resonance Delocalization of Electrons



5. Formal Charge (FC) Calculations

$$FC = \text{group\#} - \text{touch}$$

6. Minimize FC between atoms
7. Most electronegative atom prefers (-) FC
8. Most electropositive atom prefers (+) FC
9. Evaluate Major versus Minor Resonance Contributors

Rules of Play for drawing Lewis Dot Structures

Organic Substances

1. C N O F H atoms always obey the above diagrammed most stable bonding modes in stable organic molecules.
2. VSEPR rules should be applied to correctly diagram the spatial orientation of each atom in its structure.
3. Line-angle structures may be drawn for convenience.