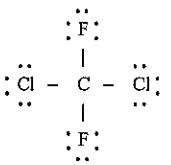
Worksheet: More Lewis Structures Name *KEY*

I. Draw Lewis Structures for the following molecules.

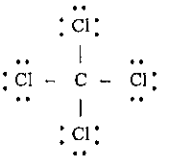
CCl_2F_2

4 + (2 × 7) + (2 × 7) = 32 valence e⁻



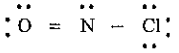
CCl_4

4 + (4 × 7) = 32 valence e⁻



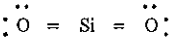
ONCl

6 + 5 + 7 = 18 valence e⁻



SiO_2

4 + (2 × 6) = 16 valence e⁻

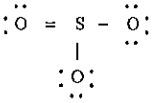


C_2H_2

(2 × 4) + (2 × 1) = 10 valence e⁻

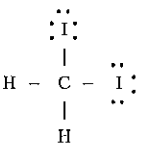
SO_3

6 + (3 × 6) = 24 valence e⁻



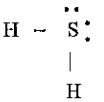
CH_2I_2

4 + (2 × 1) + (2 × 7) = 20 valence e⁻



H_2S

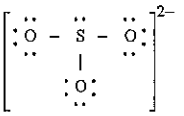
6 + (2 × 1) = 8 valence e⁻



II. Draw Lewis Structures for the following polyatomic ions.

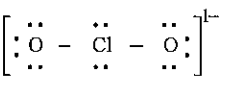
SO_3^{2-}

6 + (3 × 6) + 2 = 26 valence e⁻



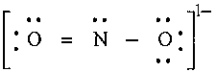
ClO_2^{1-}

7 + (2 × 6) + 1 = 20 valence e⁻



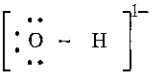
NO_2^{1-}

5 + (2 × 6) + 1 = 18 valence e⁻



OH^{1-}

6 + 1 + 1 = 8 valence e⁻



IV. Draw electron dot diagrams for the following elements.

lead

rubidium

xenon

gallium

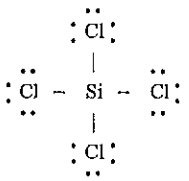
selenium

strontium

V. Draw Lewis Structures for the following molecules.

$SiCl_4$

4 + (4 × 7)
= 32 valence e⁻

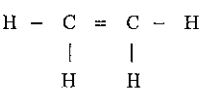


CO_2

4 + (2 × 6)
= 16 valence e⁻

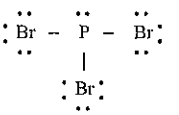
C_2H_4

(2 × 4) + (4 × 1)
= 12 valence e⁻



PBr_3

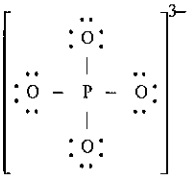
5 + (3 × 7)
= 26 valence e⁻



VI. Draw Lewis Structures for the following polyatomic ions.

PO_4^{3-}

5 + (4 × 6) + 3
= 32 valence e⁻



ClO_3^{1-}

7 + (3 × 6) + 1
= 26 valence e⁻