

Molecular Models Lab

| Molecule | Dot Structure | Structural Formula | Shape | Polar Bonds? | Polar Molecule? |
|-----------------------------------|---------------|--------------------|-------|--------------|-----------------|
| H ₂ | | | | | |
| Br ₂ | | | | | |
| H ₂ O | | | | | |
| CO ₂ | | | | | |
| PF ₃ | | | | | |
| SO ₂ | | | | | |
| SO ₄ ²⁻ | | | | | |
| O ₂ | | | | | |
| O ₃ | | | | | |
| N ₂ | | | | | |
| CH ₄ | | | | | |
| CO ₃ ²⁻ | | | | | |
| C ₂ H ₆ | | | | | |
| C ₂ H ₄ | | | | | |
| C ₂ H ₂ | | | | | |
| * BF ₃ | | | | | |
| * PCl ₅ | | | | | |
| * SF ₆ | | | | | |
| * NO ₂ | | | | | |
| C ₆ H ₁₄ | | | | | |
| ** C ₆ H ₁₂ | | | | | |
| ** C ₆ H ₆ | | | | | |

- = Violation of octet rule. If there is not a lone, single star next to the formula, then that compound obeys the octet rule.
- ** = Ring-shaped compound. If there are not two stars next to the formula, then the structure is NOT in a circle.