

Lewis Structures, Shapes, and Polarity

Draw Lewis structures, name shapes and indicate polar or non-polar for the following molecules:

- a. CH₄
- b. NCl₃
- c. CCl₂F₂
- d. CF₂H₂
- e. CH₂O
- f. CHN
- g. PI₃
- h. N₂O
- i. SO₂
- j. CS₂
- k. CO
- l. H₂O
- m. COF₂
- n. N₂
- o. O₂
- p. H₂
- q. Cl₂
- r. HF
- s. O₃
- t. NI₃

a. CH ₄	tetrahedral, non-polar
b. NCl ₃	trigonal pyramidal, polar
c. CCl ₂ F ₂	tetrahedral, polar
d. CF ₂ H ₂	tetrahedral, polar
e. CH ₂ O	trigonal planar, polar
f. CHN	linear, polar trigonal pyramidal, polar
g. PI ₃	trigonal pyramidal, polar
h. N ₂ O	linear, polar
i. SO ₂	bent, polar
j. CS ₂	linear, non-polar
k. CO	linear, polar
l. H ₂ O	bent, polar
m. COF ₂	trigonal planar, polar
n. N ₂	linear, non-polar
o. O ₂	linear, non-polar
p. H ₂	linear, non-polar
q. Cl ₂	linear, non-polar
r. HF	linear, polar
s. O ₃	bent, non-polar
t. NI ₃	trigonal pyramidal, Polar

