

Molecular Formula	Lewis Structure	Geometry (Page 200)	Polar or Non-Polar
H ₂ (hydrogen gas)	$H-H$	linear	non-polar
H ₂ O	$H-\overset{\cdot\cdot}{\underset{\cdot\cdot}{O}}-H$	bent	polar
CH ₄ (methane)	$\begin{array}{c} H \\ \\ H-C-H \\ \\ H \end{array}$	tetrahedral	non-polar
Cl ₂ (chlorine gas)	$:\overset{\cdot\cdot}{Cl}-\overset{\cdot\cdot}{Cl}:$	linear	non-polar
NH ₃ (ammonia)	$\begin{array}{c} H \\ \\ H-\overset{\cdot\cdot}{N}-H \\ \\ H \end{array}$	trigonal pyramidal	polar
HF	$H-\overset{\cdot\cdot}{F}:$	linear	polar
H ₂ S	$H-\overset{\cdot\cdot}{\underset{\cdot\cdot}{S}}-H$	bent	polar
SiH ₄	$\begin{array}{c} H \\ \\ H-Si-H \\ \\ H \end{array}$	tetrahedral	non-polar
C ₂ H ₂	$H-C\equiv C-H$	linear	non-polar
CH ₂ Cl ₂	$\begin{array}{c} :Cl: \\ \\ H-C-H \\ \\ :Cl: \end{array}$	tetrahedral	polar
N ₂ (nitrogen gas)	$:N\equiv N:$	linear	non-polar
CO ₂ (carbon dioxide)	$\overset{\cdot\cdot}{O}=C=\overset{\cdot\cdot}{O}$	linear	non-polar
H ₂ O ₂ (hydrogen peroxide)	$H-\overset{\cdot\cdot}{\underset{\cdot\cdot}{O}}-\overset{\cdot\cdot}{\underset{\cdot\cdot}{O}}-H$? bent	?
O ₂ (oxygen gas)	$\overset{\cdot\cdot}{O}=\overset{\cdot\cdot}{O}$	linear	non-polar
C ₄ H ₁₀ (butane)	$\begin{array}{cccc} H & H & H & H \\ & & & \\ H-C & -C & -C & -C-H \\ & & & \\ H & H & H & H \end{array}$	linear	non-polar

Name _____ Lewis Structures, Molecular Geometry, and Polarity

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SiH ₄			
C ₂ H ₂			
CH ₂ Cl ₂			
N ₂ (nitrogen gas)			
CO ₂ (carbon dioxide)			
H ₂ O ₂ (hydrogen peroxide)			
O ₂ (oxygen gas)			
C ₄ H ₁₀ (butane)			