

Molecular Models Laboratory Exercise

Species	Lewis Structure(s)	3-D drawing	Molecular Shape (name)	Polarity
CH <sub>4</sub>				
SiCl <sub>4</sub>				
NH <sub>3</sub>				
H <sub>2</sub> O				

HCN				
CO <sub>2</sub>				
F <sub>2</sub>				
O <sub>2</sub>				

$N_2$				
HCl				
$PCl_3$				
$PCl_5$				

$\text{SF}_4$				
$\text{SF}_6$				
$\text{BF}_3$				
$\text{ClF}_3$				

$\text{IF}_5$				
$\text{XeF}_2$				
$\text{XeF}_4$				
$\text{O}_3$				

$\text{SO}_2$				
$\text{SO}_3$				
$\text{N}_2\text{O}$				
$\text{C}_2\text{H}_2$				

$C_2H_4$			-----	
$C_2H_6$			-----	
$CH_3CH_2CH_3$			-----	
$CH_3F$			-----	

$\text{CH}_2\text{Cl}_2$			-----	
$\text{CH}_3\text{OH}$			-----	
$\text{H}_2\text{CO}$			-----	
$\text{H}_2\text{NNH}_2$			-----	



$\text{CH}_3\text{COOH}$			-----	
$\text{HNO}_3$			-----	
$\text{POCl}_3$			-----	
$\text{SF}_3\text{CN}$			-----	

$\text{NH}_4^+$				-----
$\text{ICl}_2^-$				-----
$\text{IF}_4^-$				-----
$\text{CO}_3^{2-}$				-----

$\text{NO}_2^-$				-----
$\text{NO}_3^-$				-----
$\text{SO}_3^{2-}$				-----
$\text{SO}_4^{2-}$				-----

$\text{ClO}_2^-$				-----
$\text{ClO}_4^-$				-----
$\text{PF}_6^-$				-----
$\text{OCN}^-$				-----

$I_3^-$				-----
$NO_2^+$				-----
$HCO_3^-$			-----	-----
$CH_3O^-$			-----	-----