

Lewis Structure Lab

Chemistry

Name _____

For each molecule, fill in the boxes beginning with Lewis structures.

Lewis Structure	Ball and Stick Model	Molecule CH ₄
		Geometry
		Polar/Nonpolar?
Lewis Structure	Ball and Stick Model	Molecule H ₂ O
		Geometry
		Polar/Nonpolar?
Lewis Structure	Ball and Stick Model	Molecule NH ₃
		Geometry
		Polar/Nonpolar?
Lewis Structure	Ball and Stick Model	Molecule CO ₂
		Geometry
		Polar/Nonpolar?
Lewis Structure (one resonance structure)	Ball and Stick Model	Molecule NO ₃ ⁻ <i>*add extra electron to Lewis Structure</i>
		Geometry
		Polar/Nonpolar?

Lewis Structure	Ball and Stick Model	Molecule C_2H_2
		Geometry
		Polar/Nonpolar?
Lewis Structure	Ball and Stick Model	Molecule O_3
		Geometry
		Polar/Nonpolar?
Lewis Structure	Ball and Stick Model	Molecule
		Geometry
		Polar/Nonpolar?

Compare the Lewis structures and the ball and stick models of the following molecules:

a) C_2H_4		b) N_2H_4	
Lewis Structure	Ball and Stick Model	Lewis Structure	Ball and Stick Model

What is the difference between the geometries of these two molecules?

Write a Lewis structure for each molecule, and construct the ball and stick model for each. Then, **describe the ball and stick model**, and if it differs from your prediction based on the Lewis structure.

a) C_5H_{12}		b) C_6H_6
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