

AP Chem: Homework 9-2: Electronegativity and Lewis Dot Structures
p.379 #33, 36, 40, 48 and Extra Lewis Dot Questions

9.33 Both electronegativity and electron affinity give measures of how much an atom *attracts* electrons. However, they are defined differently. Define each of them.

Electronegativity:

Electron Affinity:

9.36 Using electronegativity differences, arrange the following bonds in order of increasing ionic character: C to H; F to H; Br to H; Na to Cl; K to F; Li to Cl

Least Ionic _____ < _____ < _____ < _____ < _____ < _____ Most

9.40 Using electronegativity differences, classify the following bonds as ionic, polar covalent, or nonpolar covalent. (Justify determinations by stating electronegativity differences for each.)

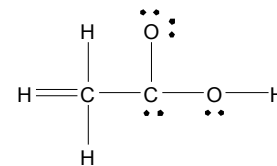
(a) Si-Si:

(b) Si-Cl:

(c) CaF:

(d) N-H:

9.48 The skeletal arrangement of the atoms of acetic acid shown here is correct, but the arrangement of electrons (in bonds and lone pairs) are not fully correct.



a) Identify what is wrong with the Lewis Dot Structure.

(b) Write the correct Lewis Dot structure for acetic acid.

Lewis Dot Practice: Draw the Lewis Dot Structure for the following molecules. Sometimes the skeletal arrangement of the atoms is given. The underlined atom is at center of structure.

Formula	Total # of Val e	Lewis Dot
a) <u>N</u> F ₃		
b) O ₂		
c) N ₂		
d) <u>C</u> H ₂ O		
e) <u>N</u> ₂ F ₂		F N N F
f) NO ⁺		
g) O ₂ ²⁻		
h) <u>P</u> OCl ₃		<p style="text-align: center;">O</p> <p style="text-align: center;">Cl P Cl</p> <p style="text-align: center;">Cl</p>
i) H ₂ SO ₃		<p style="text-align: center;">H O S O H</p> <p style="text-align: center;">O</p>
j) CH ₃ CH ₂ NH ₂		<p style="text-align: center;">H H</p> <p style="text-align: center;">H C C N H</p> <p style="text-align: center;">H H H</p>
k) CH ₃ COOH		<p style="text-align: center;">H O</p> <p style="text-align: center;">H C C O H</p> <p style="text-align: center;">H</p>