

Lewis Model and Bonding

Exercise 1:

Draw the Lewis model (electron dot diagram) for each of the following elements.

H	He	Li	Be	B	C	N	O	F	Ne	Na	Mg	Al
Si	P	S	Cl	Ar	K	Ca	Ga	Ge	As	Se	Br	Kr
Rb	Sr	Sb	Te	I	Xe	Cs	Ba	Bi				

Exercise 2: Ionic Bonding

On a separate sheet of paper, use Lewis model to show the bonding that takes place between the atoms in each of the following pairs of elements.

- a. Li and F b. Mg and O

On a separate sheet of paper, use Lewis model to show the bonding that takes place between the atoms in each of the following pairs of elements.

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|--------------|--------------|--------------|-------------|
| 1. Ba and Se | 2. Rb and As | 3. Na and Cl | 4. Al and O |
| 5. Be and I | 6. Ga and Cl | 7. K and P | 8. Cs and N |

Exercise 3: Covalent Bonding

On a separate sheet of paper, use Lewis model to show the bonding with each of the following compounds.

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| a. HCl | f. IBr | k. Cl ₂ O |
| b. H ₂ O | g. I ₂ | l. C ₂ H ₆ |
| c. NH ₃ | h. N ₂ | m. CH ₄ |
| d. O ₂ | i. C ₂ H ₄ | n. PF ₃ |
| e. CH ₃ OH | j. SCl ₂ | o. P ₂ S ₃ |