

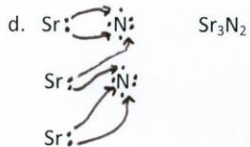
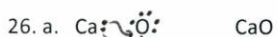
2. a. Na^+ has a charge, Ne does not
 b. Cl_2 & Cl are both neutral, Cl^- has a charge

4. a. $[\text{Ne}]3s^2 3p^6$ K^+
 b. $[\text{Ne}]3s^2 3p^6$ S^{2-}
 c. $[\text{He}]2s^2 2p^6$ Al^{3+}
 d. $[\text{Ne}]3s^2 3p^6$ Cl^-
 e. $[\text{He}]2s^2 2p^6$ Mg^{2+}
 f. $[\text{He}]2s^2 2p^6$ N^{3-}

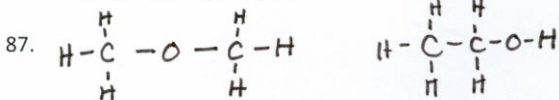
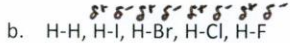
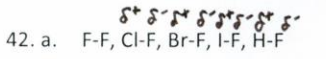


9. a. N b. Cl c. F d. O

12. a. 1 b. 4 c. 2 d. 1 e. 3 f. 1



32. Lattice Energy = -2809 kJ
 Li_2O You will need a 1st and 2nd Electron Affinity



94. -15 kJ MgCl
 95. -616 kJ MgCl_2

Compare the answers for 94 & 95. The much larger value in 95 indicates MgCl_2 is the compound that is most likely to form and will be the most stable.

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 8. no, no

$\text{Cl}-\text{Cl}$
 no bond dipole

$\delta^- \quad \delta^+ \quad \delta^-$
 $\text{O}=\text{C}=\text{O}$
 Polar bonds
 nonpolar molecule

