

Ionic Bonds:

- Ionic bond – electrostatic force that holds oppositely charged particles together – *transfer electrons*
 - > Positive ions are called cations (lose electrons)
 - metals
 - > Negative ions are called anions (gain electrons)
 - nonmetals
- Ionic compounds – compounds that contain ionic bonds *metal : non metal*
- One atom loses **electrons** (cation--metal), one atom **gains electrons** (anion--nonmetal)
- Atoms gain or lose electrons to achieve stability -- an octet

Oct 4-3:04 PM

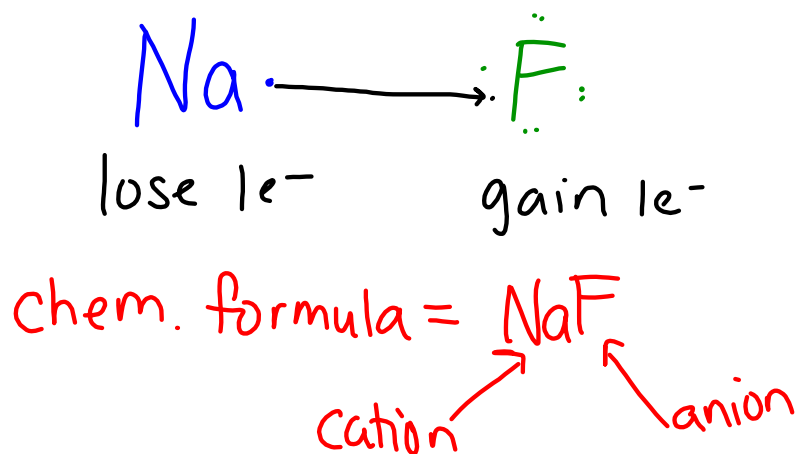
Binary Ionic Compounds

- Binary ionic compounds – compounds containing only 2 elements
- May contain more than one atom of each element, but only 2 elements
- Examples: MgO, CaF₂, Li₃N
 - Na₂SO₄* (crossed out)
 - 2 elements, 2 atoms* (pointing to MgO)
 - 2 elements, 3 atoms* (pointing to CaF₂)
 - 2 elements, 4 atoms* (pointing to Li₃N)
- Cation (+, metal) is written first
- Anion (-, nonmetal) is written second

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Writing the Formulas for Ionic Compounds:

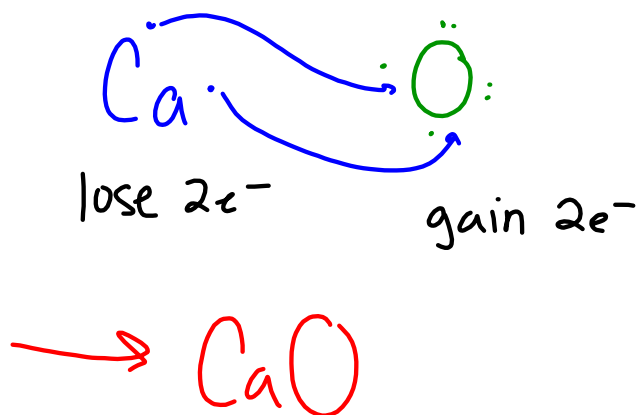
1. binary ionic bond between Na and F



Oct 5-8:44 AM

Writing the Formulas for Ionic Compounds:

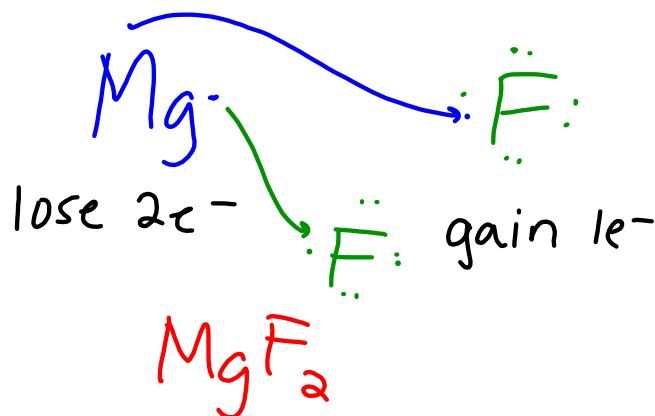
2. binary ionic bond between Ca and O



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Writing the Formulas for Ionic Compounds:

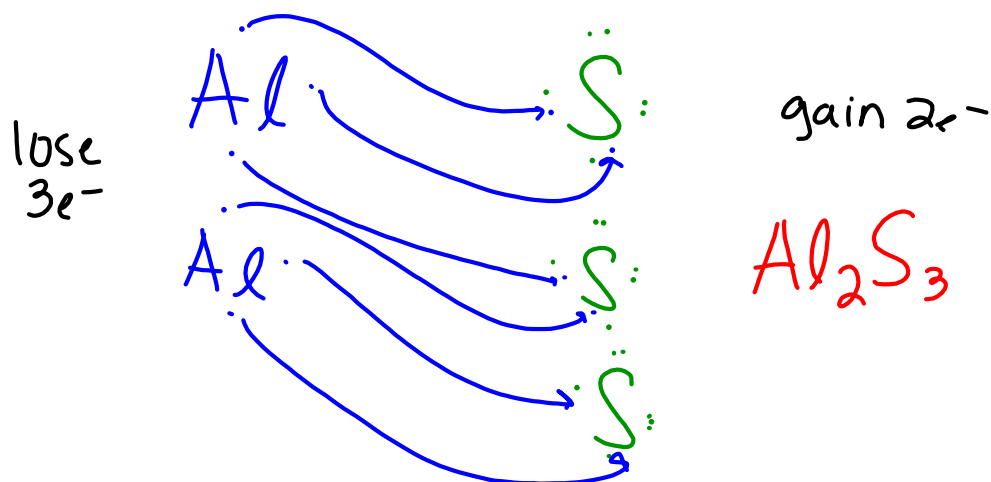
3. binary ionic bond between Mg and F



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Writing the Formulas for Ionic Compounds:

4. binary ionic bond between Al and S



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