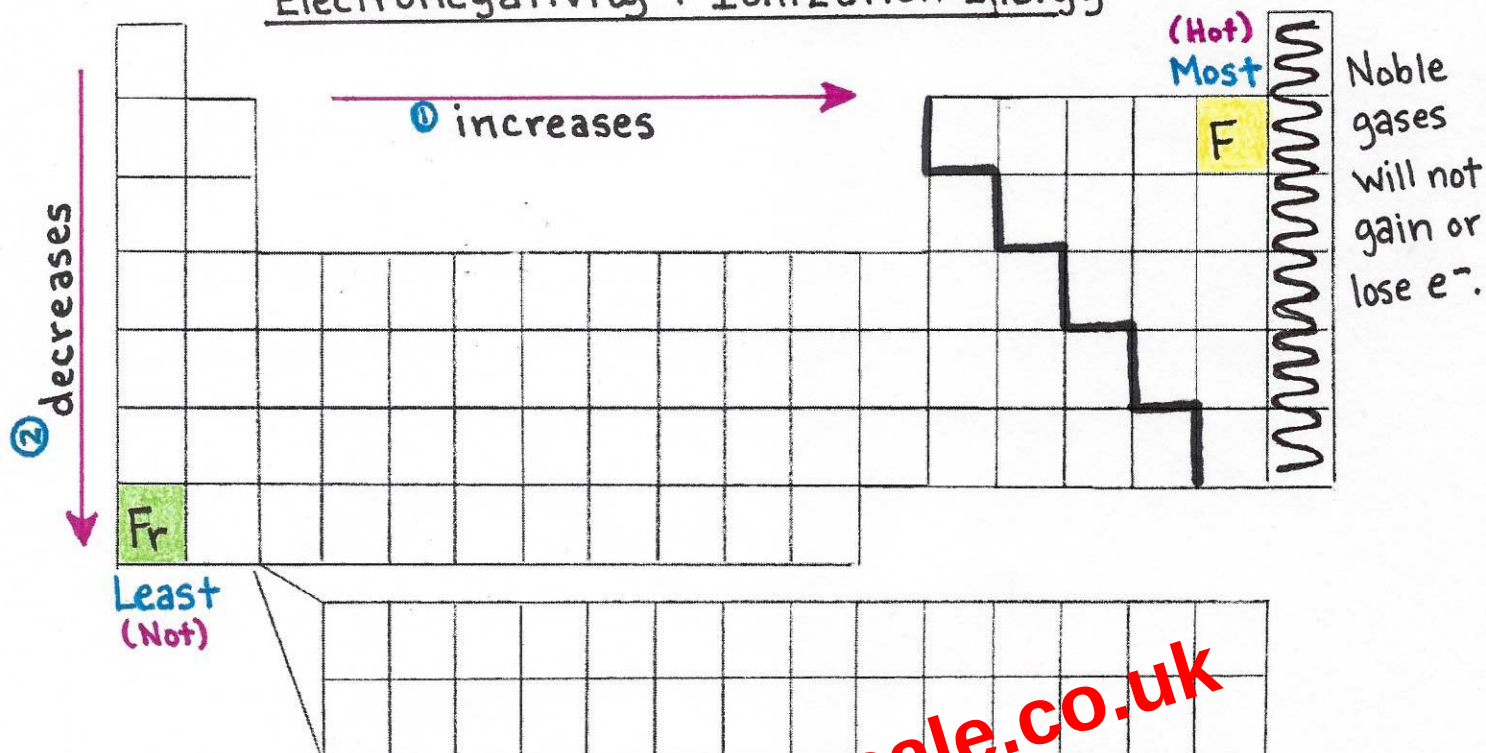


Electronegativity & Ionization Energy



Electronegativity: the ability of an atom in a chemical compound to **attract (pull) electrons**.

Fluorine is the most electronegative element on the periodic table, making it the most reactive.

Trend Down the Family/Group:

Decreases as you move down a family because the valence electrons are farther away from the protons and there is more electron shielding, both of which decrease the effective nuclear charge (Z_{eff}).

(Adding rings)

Ionization Energy: the energy required to **remove an electron** from another atom or ion.

Electronegativity & Ionization Energy are directly related to each other, so the trend is the same for both.

Trend Across the Period/Row:

Increases as you move across a period because adding protons increases Z_{eff} , while electron shielding remains constant.

(Adding p^+ but not rings)