

Atomic Radius (size)

down group - increases
gain more energy levels

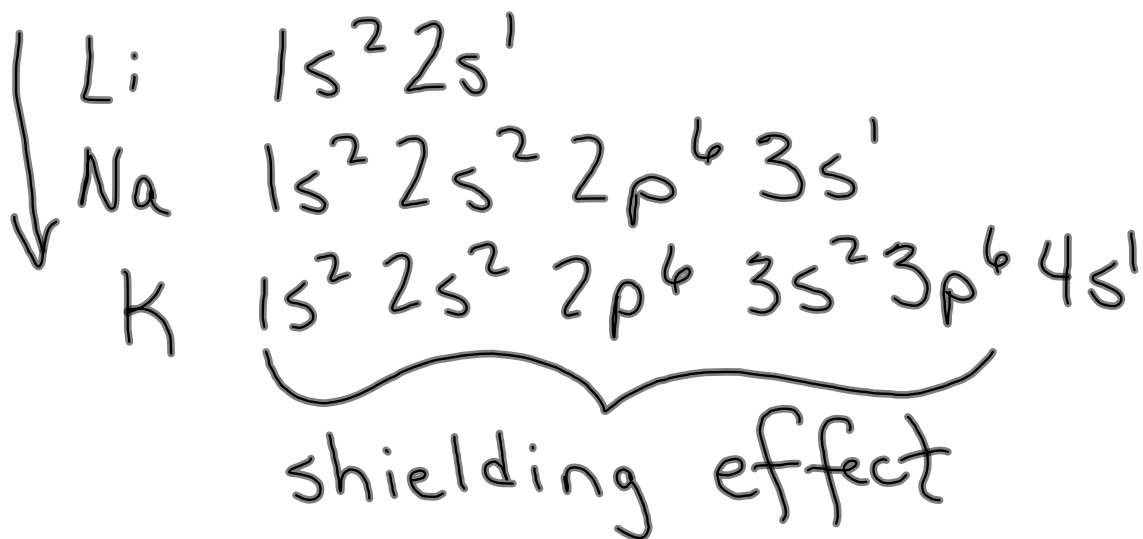
across period - decreases
p^+ increases + inc.
attraction bet. nucleus
and valence e^-

I.E.

amt energy needed to
remove e^- from atom
in its gaseous state



across period I.E. inc.
down group dec.



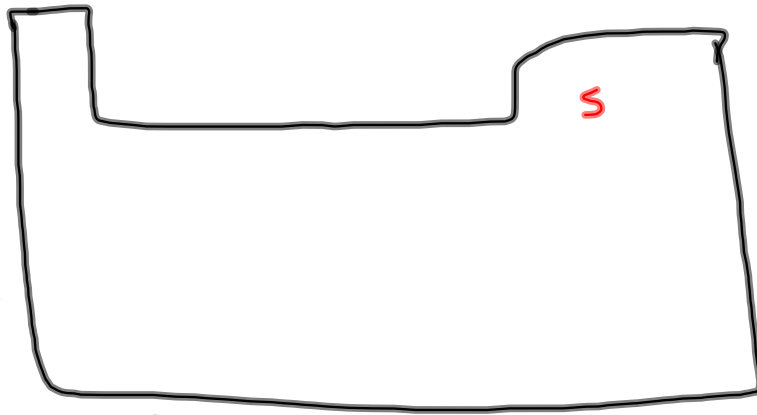
e^- affinity

energy involved for gaseous
atom to gain e^-



across period inc.
down family dec.

← Atomic size increase
IE decreases
e⁻ decreases



→ atomic size decreases
IE increases
e⁻ affinity inc.

$$s^{2-} | s^2 2s^2 \quad 2\rho^6 3s^2 3\rho^6$$

$$s | s^2 2s^2 2\rho^4 3s^2 3\rho^4$$

$$s^{2+} | s^2 2s^2 2\rho^6 3s^2 3\rho^2$$