

Atomic Trends: Electron Affinity

Definition:

Electron Affinity (E.A.)

An atom's ΔE when an electron is added.

(+) Endothermic

Energy is required as the additional electron is added.

Atom's internal energy goes up.

“Unwelcome electron” since additional E is required

(-) Exothermic

Energy is release as the additional electron is added

Atom's internal energy goes down.

“Welcome electron” energy is released



Atomic Trends

Atomic Size: Size of atom

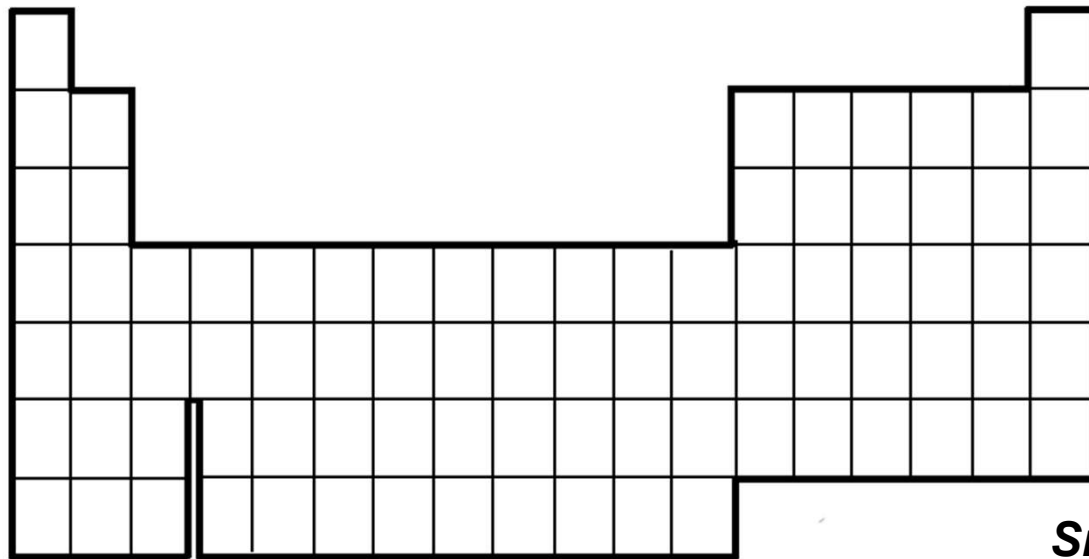
Large E.A.

Large I.E.

Small atoms

Ionization Energy (I.E.) Energy required to remove an e⁻

Electron Affinity (E.A.) Energy released/absorbed with the addition of an extra e⁻



Large atoms

Small I.E.

Small E.A.

Small atoms

Large I.E.

Large E.A.



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