Effective Nuclear Charge.

Due to screening effect the valency electron experiences less attraction towards nucleus. This brings decrease in the nuclear charge (Z) actually present on the nucleus. The reduced nuclear charge is termed **effective nuclear charge** and is represented by Z^*. It is related to actual nuclear charge (Z) by the following formula,

$Z^* = (Z - \sigma)$ where σ is screening constant.

It is observed that **magnitude of effective nuclear charge increases in a period when we move from left to right.**

In a subgroup of normal elements the magnitude of effective nuclear charge remains almost the same.