

Electron Configuration

Notes:

Take care with ions. A positive ion will have fewer electrons and vice versa

The configuration for Mg^{2+} will be $1s^2 2s^2 2p^6$

The configuration for Mg is $1s^2 2s^2 2p^6 3s^2$

A configuration which shows an electron in a higher energy orbital at the expense of a lower energy orbital is said to be in an excited state.

Chlorine would be in an excited state if its configuration was $1s^2 2s^2 2p^6 3s^1 3p^5 4s^1$.