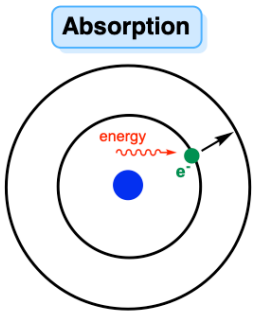
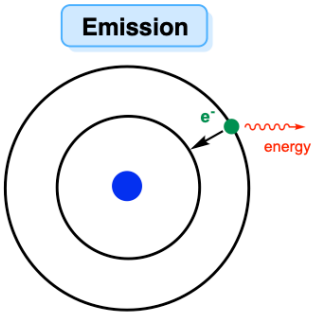
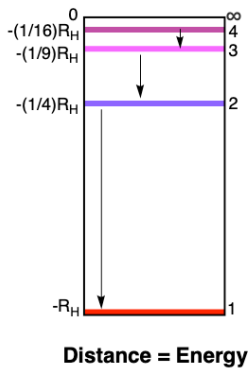
CONCEPT: ATOMIC EMISSION

Absorption involves the taking in of excess energy by an electron, which promotes it to a higher "excited" energy state.

Emission involves releasing that same absorbed energy so that the electron falls to a lower energy ground state.







Emission Line Spectrum

Lyman Series: ∞ to n = 1 _____

Balmer Series: ∞ to n = 2 _____

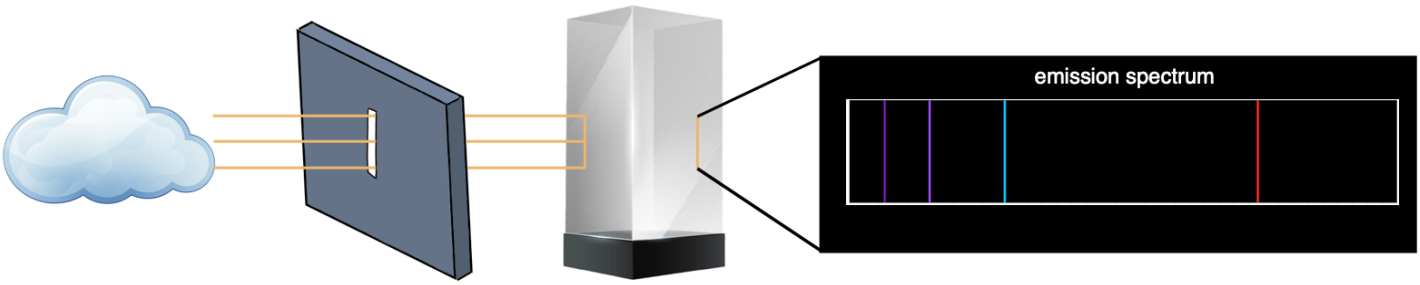
Paschen Series: ∞ to n = 3 _____

Brackett Series: ∞ to n = 4 _____

Pfund Series: ∞ to n = 5 _____

Humphrey Series: ∞ to n = 6 _____

An ***emission spectrum*** represents the different frequencies of electromagnetic radiation emitted by an atom as it transitions from a higher energy state to a lower energy state.



An ***absorption spectrum*** is a spectrum of electromagnetic radiation transmitted through a substance, showing dark lines or bands due to absorption of specific wavelengths.