

## **self-absorption broadening**

### *of a spectral line*

Photons emitted in one region of a source are partly absorbed in their passage through the plasma. Because of the fact that the absorption profile is of the same shape as the emission profile, energy is selectively absorbed from the emission line, i.e. the absorption coefficient is a maximum at the centre of the line or central wavelength. The actual line profile is changed as a result of the lowering of the maximum intensity accompanied by a corresponding increase in apparent halfwidth.

#### ***Source:***

Orange Book, p. 122