

- **pcfabs, zpcfabs: partial covering fraction absorption**

A partial covering fraction absorption. The relative abundances are set by the **abund** command.

$$M(E) = f \exp[-n_H \sigma(E)] + (1 - f)$$

where $\sigma(E)$ is the photo-electric cross-section (NOT including Thomson scattering) (see **phabs**) and:

par1 = n_H equivalent hydrogen column (in units of 10^{22} atoms cm^{-2})

par2 = f covering fraction $0 < \text{par2} < 1$ (dimensionless)

The redshifted variant **zpcfabs** is given by:

$$M(E) = n_H \exp[-f \sigma(E[1+z])] + 1 - f$$

where $\sigma(E)$ is the photo-electric cross-section (NOT including Thomson scattering) (see **phabs**). Relative abundances are as for **pcfabs**. Parameters are:

par1 = n_H equivalent hydrogen column (in units of 10^{22} atoms cm^{-2})

par2 = f dimensionless covering fraction ($0 < f \leq 1$)

par3 = z redshift