ASTROPHYSICS OF THE INTERSTELLAR MEDIUM - ERRATA

PAGE 18, SECTION 2.2.1, SECOND PARAGRAPH

Plasma emissivity, defined as the total power emitted per unit volume per unit solid angle per unit frequency interval between ν e $\nu + d\nu$, is given by

$$\epsilon_\nu = \frac{n_e}{4\pi} \int P(v,\nu)\, f(v)\, dv \ , \tag{2.2}$$

and it is generally measured in erg cm^{-3} s^{-1} sr^{-1} Hz^{-1}, where $f(v)$ is the distribution function of electron velocities and $P(v,\nu)$ is the total power emitted per unit frequency interval during the collision between an electron with velocity v and an ion with density n_i. If $f(v)$ is given by the Maxwellian distribution, the emissitivy is ...

PAGE 57, AFTER EQUATION (4.13)

where we neglect the radiation intensity falling on the region opposite to the observer and $\tau_{\nu r}$ is again the total optical depth of the emitting region ...

PAGE 80, AFTER EQUATION (5.15)

From (5.6), we see that coefficient γ_{jk} gives the collision probability per unit time per field particle so that $n_c\, \gamma_{jk}$ gives the number of excitations per second, and the product $n_t\, n_c\, \gamma_{jk}$ gives the number of excitations per cubic centimeter per second, where n_t is the test particle density ...

PAGE 126, EQUATION (7.18)

$$\Gamma_{ei} = n_e\, n_i \sum_j \left[\langle \sigma_{cj}\, v \rangle\, \bar{E}_2 - \langle \sigma_{cj}\, v\, E_1 \rangle \right] \ , \tag{7.18}$$