

Typos in *Astrophysics of Gaseous Nebulae and Active Galactic Nuclei*, 2nd edition, by Donald E. Osterbrock and Gary J. Ferland. 2007-07-25

We thank Pat Hall, Greg Shields, Christian Knigge, Ryan Porter, and Kirk Korista for bringing these to our attention.

Page 20, in the second to last equation, the e is the constant 2.718 .. and not the electron charge. The confusion would be avoided if the “and” between the second and third equations were replaced with “(with “ e ” denoting the base of the natural logarithm, not the electron charge), and”

Page 21, The sentence leading to equation 2.5 should read “Therefore, the recombination coefficient to a specified term n^2L may be written” (replace “level” with “term”)

Page 61, middle paragraph line 5, change $n(\text{H}^0)/n(\text{H}^0)$ to $n(\text{H}^0)/n(\text{H})$

Page 62, labels for $[\text{N II}]^3P - ^1D$ and $[\text{O III}]^3P - ^3D$ are reversed in Figure 3.2.

Page 72, second to last equation has an a on the left hand side. This should be an α (alpha)

Page 75, Table 4.3, “Balmer” – line intensities ($n \rightarrow 2$) relative to $\lambda 4686$ for 5,000K, 10,000K, and 20,000K should be multiplied by 10. Intensities are correct at 40,000K and in Table 4.5.

Page 80, Table 4.5. In the leftmost column, the third line with information should start with α_{4686}^{eff} rather than $\alpha_{\text{H}\beta}^{eff}$.

Page 89 equation 4.34, left hand, denominator should be corrected to read as $\frac{dI_\nu}{d\tau_\nu}$

Page 123 and 153. A recent paper on the $[\text{O II}]$ collision strengths, which resolves a controversy over their scaling for members of the multiplet, is Tayal, S. 2007, ApJS, 171, 331. This paper confirms the statistical weight scaling adopted by Seaton & Osterbrock (1957, ApJ, 125, 66).

Page 196, y-axis labels for Figure 7.9 should be $\langle n_D Q \pi a^2 \rangle n_D / n_H$ [cm^{-2}]. This is the cross section per H nucleon for an ISM dust to gas ratio. The last sentence on page 196 should read “The total cross section per dust grain at a wavelength ...”

Page 290, equation 11.9, the terms representing collisional excitation to $n=3$ should give the upper levels as 3^2S , 3^2P^o , and 3^2D (doublet rather than triplet).

Page 291, equation 11.11, the parity is missing from 2^2P^o .

Page 368, upper panel of figure 14.6. The broad bump shortward of $\text{H}\beta$ is mislabeled. It should be Fe II 4570.

Page 396, The flux given in appendix A1.2 is called the physical flux πF in other chapters of the book. F should be written as πF in equations A1.3 and A1.4.

Page 396, last line on page should have a division symbol between R^2 and d^2 , and read as $d\Omega \approx R^2 / d^2$

Page 402 second equation, change $\left(\frac{2\pi kT}{h^2}\right)^{3/2}$ to $\left(\frac{2\pi mkT}{h^2}\right)^{3/2}$

Page 402 second to last equation, integral should include $f(u)$, and appear as

$$\alpha(X^+, T) = \int_0^\infty u f(u) \sigma(u) du.$$

Page 403, last sentence should read: "If s is nonintegral, $E_n(x)$ must be replaced in this formula by $x^{n-1}\Gamma(1-n, x)$." (replace the chi with x)