

M. I. Mishchenko, L. D. Travis, and A. A. Lacis
Scattering, Absorption, and Emission of Light by Small Particles
Cambridge University Press, Cambridge, 2002

ERRATA

(updated 09.15.2004)

Page 13, Fig. 1.1. \mathbf{k} should be replaced by \mathbf{K} . The figure caption should read as follows:

“Plane surface normal to a real vector \mathbf{K} .”

Page 13, 4th line after Eq. (1.35). The sentence in parentheses should begin as follows:

“A plane surface normal to a real vector \mathbf{K} is defined as $\mathbf{r} \cdot \mathbf{K} = \text{constant}$, where...”

Page 39. Equation (2.47) should read as follows:

$$r^2 \int_{4\pi} d\hat{\mathbf{r}} \hat{\mathbf{r}} \cdot \{ \dots \}_{\mathbf{r} \rightarrow \infty} = 0.$$

Page 58. Equation (2.163) should read as follows:

$$W_{\Delta S}(\hat{\mathbf{n}}^{\text{inc}}) = \frac{1}{2} \sqrt{\frac{\epsilon_1}{\mu_0}} |\mathbf{E}_0^{\text{inc}}|^2 (\Delta S - C_{\text{ext}}) + O(r^{-2}).$$

Page 67. Equation (2.192) should read as follows:

$$\Delta = k_1 \mathbf{r}_{12} \cdot (\hat{\mathbf{n}}^{\text{inc}} - \hat{\mathbf{n}}^{\text{sca}}),$$

Page 69. Equation (3.4) should read as follows:

$$\Delta_n = k_1 \mathbf{r}_{On} \cdot (\hat{\mathbf{n}}^{\text{inc}} - \hat{\mathbf{r}}),$$

Page 78. 3rd line from top. “ $\Delta S r^{-2} \mathbf{Z}(\hat{\mathbf{n}}^{\text{sca}}, \hat{\mathbf{n}}^{\text{inc}}) \mathbf{I}^{\text{inc}}$ ” should read “ $\Delta S r^{-2} \mathbf{Z}(\hat{\mathbf{n}}^{\text{sca}}, \hat{\mathbf{n}}^{\text{inc}}) \mathbf{I}^{\text{inc}}$ ”.

Page 79. Equation (3.34) should read as follows:

$$\Delta = k_1 (\mathbf{r}_N - \mathbf{r}_1) \cdot (\hat{\mathbf{n}}_{\text{ill}} + \hat{\mathbf{n}}_{\text{obs}}),$$

Page 80. 4th line from top. “Kuga and Ishimaru (1994)” should read “Kuga and Ishimaru (1984)”

Page 128. Equation (5.78) should read as follows:

$$\langle T_{mm'n'}^{kl}(L) \rangle = \delta_{mn'} T_{mmn'}^{kl}, \quad k, l = 1, 2,$$

Page 129. Equation (5.87) should read as follows:

$$T_{-mmn'}^{kl} = (-1)^{k+l} T_{mmn'}^{kl},$$

Page 140. The second line should read as follows: “frame and $\varphi^{\text{sca}} = \varphi^{\text{inc}}$.”

Page 144. Equations (5.173) and (5.175) should read as follows:

$$\begin{aligned} a_{mn} &= k_1 (-1)^m \int_S dS \left\{ \omega \mu_0 [\hat{\mathbf{n}} \times \mathbf{H}_+(\mathbf{r})] \cdot \mathbf{M}_{-mn}(k_1 r, \vartheta, \varphi) \right. \\ b_{mn} &\quad \left. \mathbf{N}_{-mn}(k_1 r, \vartheta, \varphi) \right\} \end{aligned}$$

$$-ik_1[\hat{\mathbf{n}} \times \mathbf{E}_+(\mathbf{r}) \cdot \begin{matrix} \mathbf{N}_{-mn}(k_1 r, \vartheta, \varphi) \\ \mathbf{M}_{-mn}(k_1 r, \vartheta, \varphi) \end{matrix} \Bigg\}. \quad (5.173)$$

$$\frac{P_{mn}}{q_{mn}} = -k_1(-1)^m \int_S dS \left\{ \begin{matrix} \omega\mu_0[\hat{\mathbf{n}} \times \mathbf{H}_+(\mathbf{r}) \cdot \text{Rg}\mathbf{M}_{-mn}(k_1 r, \vartheta, \varphi) \\ \text{Rg}\mathbf{N}_{-mn}(k_1 r, \vartheta, \varphi) \\ -ik_1[\hat{\mathbf{n}} \times \mathbf{E}_+(\mathbf{r}) \cdot \text{Rg}\mathbf{N}_{-mn}(k_1 r, \vartheta, \varphi) \\ \text{Rg}\mathbf{M}_{-mn}(k_1 r, \vartheta, \varphi) \end{matrix} \right\}. \quad (5.175)$$

Page 148. The third line of Eq. (5.199) should read as follows:

$$\times[\pi_{mn}(\vartheta)\tau_{mn'}(\vartheta) + \tau_{mn}(\vartheta)\pi_{mn'}(\vartheta)]$$

Page 163. The DO operator in the middle of the page should begin with “DO” rather than “D0”.

Page 173. 11th line from bottom. “BB = ln² σ_g” should read “B = ln² σ_g”.

Page 214. The URL <http://www.ifm.uni-kiel.de/fb/fb1/me/research/Projekte/RemSens/SourceCodes/source.html> in the second paragraph should read as follows:

<http://www.ifm.uni-kiel.de/fb/fb1/me/research/Projekte/RemSens/SourceCodes/codes.html>

Page 228. 8th line from bottom. “cloud-integrating” should read “cloud integrating.”

Page 311, Table 10.3. The entry “1.9247” should read “1.9274”.

Page 345. The second sentence of the figure caption should read as follows:

“...with aspect ratio 2 and effective volume-equivalent-sphere size parameter...”

Page 362. The first line of the second paragraph should read as follows:

“Wigner *d*-functions for 0 ≤ ϑ ≤ π are defined as”

Page 369 should begin as follows:

“The product of two *D*-functions can be expanded in the so-called Clebsch-Gordan series...”

Page 405. Volume number in Fuller (1991) should be **30** rather than **33**.

Page 445, left column. The entry “spherical particles” should appear before the entry “spherical wave.”

Plate 9.3. The third line of the caption should read as follows:

“...with *m*₁ = 10⁻⁶, 10⁻⁵, and 10⁻⁴. Bottom...”

An updated list of corrections can be found at
<http://www.giss.nasa.gov/~crmim/books.html>

If you have noticed a typo or a factual error, please e-mail it to Michael Mishchenko at crmim@giss.nasa.gov. Your help will be greatly appreciated!

The book is now available in the .pdf format at
<http://www.giss.nasa.gov/~crmim/books.html>