

ERRATUM TO “EFFECT OF AXIAL LINEAR AND SINUSOIDAL VARIATION OF THE CORE REFRACTIVE INDEX ON THE PROPAGATION OF SOME LOW ORDER MODES IN AN OPTICAL FIBER”

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The correction to our research paper [1] is made in Eq. (9). An additional +1 was typed: J_{1+1} in place of J_1 and K_{1+1} in place of K_1 .

The corrected equation is as follows:

$$\frac{UJ_{1+1}(Ua)}{J_1(Ua)} - \frac{WK_{1+1}(Wa)}{K_1(Wa)} = 0. \quad (9)$$

This is the only typographical error. All calculations in this paper are made with this corrected equation.

REFERENCE

1. P.C. Pandey and S.P. Ojha, Effect of axial linear and sinusoidal variation of the core refractive index on the propagation of some low-order modes in an optical fiber, Microwave Opt Technol Lett 28 (2001), 265–267.

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ERRATUM TO “COMPENSATING AND EQUIVALENCE PROPERTIES OF OPTICAL WAVEGUIDES WITH A LINEAR AND SINUSOIDAL VARIATION OF THE CORE REFRACTIVE INDEX AND CORE SIZE ALONG THE PROPAGATION DIRECTION”

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The corrections to our research paper [1] are in Eqs. (9)–(13). In these equations, an additional 1 was typed: J_{1+1} in place of J_1 and K_{1+1} in place of K_1 in each equation.

The corrected equations are as follows:

$$\frac{UJ_{1+1}(Ua)}{J_1(Ua)} - \frac{WK_{1+1}(Wa)}{K_1(Wa)} = 0, \quad (9)$$

$$\frac{U\{n_1(z)\}J_{1+1}\{U\{n_1(z)\}a\}}{J_1\{U\{n_1(z)\}a\}} - \frac{WK_{1+1}(Wa)}{K_1(Wa)} = 0, \quad (10)$$

$$\frac{U(n_1)J_{1+1}\{U(n_1)a(z)\}}{J_1\{U(n_1)a(z)\}} - \frac{WK_{1+1}\{Wa(z)\}}{K_1\{Wa(z)\}} = 0, \quad (11)$$

$$\begin{aligned} & \frac{U\{n_1(z)\}J_{1+1}\{U\{n_1(z)\}a\}}{J_1\{U\{n_1(z)\}a\}} - \frac{WK_{1+1}(Wa)}{K_1(Wa)} \\ & = \xi \left\{ \frac{U(n_1)J_{1+1}\{U(n_1)a(z)\}}{J_1\{U(n_1)a(z)\}} - \frac{WK_{1+1}\{Wa(z)\}}{K_1\{Wa(z)\}} \right\}. \quad (12) \end{aligned}$$

Putting $\xi = 1$ in Eq. (12), we obtain

$$A - B = 0,$$

where

$$\begin{aligned} A &= \frac{U\{n_1(z)\}J_{1+1}\{U\{n_1(z)\}a\}}{J_1\{U\{n_1(z)\}a\}} - \frac{WK_{1+1}(Wa)}{K_1(Wa)}, \quad (13) \\ B &= \frac{U(n_1)J_{1+1}\{U(n_1)a(z)\}}{J_1\{U(n_1)a(z)\}} - \frac{WK_{1+1}\{Wa(z)\}}{K_1\{Wa(z)\}}. \end{aligned}$$

These are the only typographical errors. All calculations in this paper are made with these corrected equations.

REFERENCE

1. P.C. Pandey and S.P. Ojha, Compensating and equivalence properties of optical waveguides with a linear and sinusoidal variation of the core refractive index and core size along the propagation direction, Microwave Opt Technol Lett 28 (2001), 326–328.

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