Angelides et al. Vol. 106, No. 6, June 1988

Due to an author's error, the symbol definitions in Figs. A1 and A2 and a line in the legend to Fig. A2, both on page 1922, and two lines in a set of equations on page 1923 appeared incorrectly. The corrected versions appear below.

Fig. A1:

———, infinite; · · · · ·, 100:1; – – – –, 10:1; –·–·–·–·, 4:1; ··–··–··, 3:1; ··–··–··, 2:1.

Fig. A2:

———, 3.16 × 3.16; · · · · ·, 2.50 × 4; – – – –, 1.67 × 6; –·–·–·–·, 1.25 × 8; ··–··–··, 1.00 × 10; ··–··–··, 1 D.

Fig. A2 legend:

Recovery curves were calculated for rectangular regions with different ratios of L_x to L_y, keeping the area of the regions constant at 10 square units where the beam radius $2w = 1$ U.

Equations:

For a $2L_x$ by $2L_y$ rectangular region,

$$F(<0) = J\, erf\,(L_x \sqrt{2}/w)\, erf\,(L_y \sqrt{2}/w)$$
$$F(0) = -J/\kappa\, \Sigma_{n=1}\, (-\kappa)^n/n!\; erf\,[L_x\sqrt{(2n)}/w]\; erf\,[L_y\sqrt{(2n)}/w]$$
$$F(\infty) = F(<0)\{1 + (\pi w^2)/(8L_xL_y)\, \Sigma_{n=1}\, (-\kappa)^n/(nn!)\; erf\,[L_x\sqrt{(2n)}/w]\; erf\,[L_x\sqrt{(2n)}/w]\}.$$

Where $erf(z)$ represents the error function of z; $J = Q\bar{c}I_0\pi w^2/2$; and κ has been defined above.
For a circular region of radius R,

$$F(<0) = J[1 - \exp(-2R^2/w^2)]$$
$$F(0) = -(J/\kappa)\, \{\exp(-\kappa) - \exp[-\kappa\exp(-2R^2/w^2)]\}$$
$$F(\infty) = F(<0)\, \{1 + (w^2/2R^2)\, \Sigma_{n=1}\, [(-\kappa)^n/(nn!)\; 1 - \exp(-2nR^2/w^2)]\}.$$