June 12, 2000

Correction for "Formula for the asymmetric diffraction peak profiles based on double Soller slit geometry", *Rev. Sci. Instrum.*, **69**, 2268-2272 (1998)

Takashi IDA

Equations (13) and (14) on page 2270:

$$\frac{\Phi_B^2}{4} w_{BB} = -\frac{\left(1+t^2u\right)\left[3t+\sqrt{1-\left(1-t^2\right)u}\right]}{2\left(1+t\sqrt{1-\left(1-t^2\right)u}\right)} + tu$$
$$+2\sqrt{-\left(1-t^2\right)u} + \left(1+\frac{1+t^2}{2}u\right)$$
$$\times \ln\frac{1+\sqrt{1-\left(1-t^2\right)u}}{(1+t)\sqrt{-u}} + \frac{1+t^2}{2}u\ln\frac{1-t}{1+t}$$
$$\text{for } -\frac{1-t^2}{4t^2} \le u < 0, \qquad (13)$$

$$\frac{\Phi_B^2}{4} w_{BB} = -\frac{\left(1+t^2u\right)\left[3t+\sqrt{1-\left(1-t^2\right)u}\right]}{2\left(1+t\sqrt{1-\left(1-t^2\right)u}\right)}$$
$$+\left(1+\frac{1+t^2}{2}u\right)\ln\frac{1+\sqrt{1-\left(1-t^2\right)u}}{(1+t)\sqrt{u}}$$
$$\text{for } 0 \le u < 1, \qquad (14)$$

should be corrected as:

$$\frac{\Phi_B^2}{4} w_{BB} = -\frac{(1-u)\left[3+t\sqrt{1-\left(1-t^2\right)u}\right]}{2\left(t+\sqrt{1-\left(1-t^2\right)u}\right)} + tu$$
$$+2\sqrt{-\left(1-t^2\right)u} + \ln\frac{1+\sqrt{1-\left(1-t^2\right)u}}{(1+t)\sqrt{-u}}$$
$$+\frac{1+t^2}{2}u\ln\frac{(1-t)\left(1+\sqrt{1-u\left(1-t^2\right)}\right)}{\sqrt{-u}(1+t)^2}$$
$$\text{for } -\frac{1-t^2}{4t^2} \le u < 0, \qquad (13)$$

$$\frac{\Phi_B^2}{4} w_{BB} = -\frac{(1-u)\left[3+t\sqrt{1-\left(1-t^2\right)u}\right]}{2\left(t+\sqrt{1-\left(1-t^2\right)u}\right)}$$
$$+\left(1+\frac{1+t^2}{2}u\right)\ln\frac{1+\sqrt{1-\left(1-t^2\right)u}}{(1+t)\sqrt{u}}$$
$$\text{for } 0 \le u < 1, \qquad (14)$$