

**FORMULA 4.382.4**

$$\int_0^{\infty} \ln \frac{x^2 + x + a^2}{x^2 - x + a^2} \sin bx \, dx = \frac{2\pi}{b} \exp\left(-b\sqrt{a^2 - \frac{1}{4}}\right) \sin \frac{b}{2}$$