

**FORMULA 3.541.2**

$$\int_0^{\infty} e^{-\mu x} \frac{\sinh \beta x}{\sinh bx} dx = \frac{1}{2b} \left[ \psi \left( \frac{1}{2} + \frac{\mu + \beta}{2b} \right) - \psi \left( \frac{1}{2} + \frac{\mu - \beta}{2b} \right) \right]$$