O1FRNKPSS

Complex reflection coefficients of Fresnel' formulas as function of angle of incidence for values of n2 and K.

Absolute value and imaginary parts are plotted.

n1, n2, K and θ are globally defined at the graphs.

Complex reflection coefficients zrp for parallel and zrs for perpendicular case.

$$i := \sqrt{-1}$$

$$zrp(\theta) := \frac{\left(\frac{n2 - i\cdot K}{n1}\right)\cdot\cos\left(2\cdot\frac{\pi}{360}\cdot\theta\right) - \sqrt{1 - \left[\left(\frac{n1}{n2 - i\cdot K}\right)\cdot\sin\left(2\cdot\frac{\pi}{360}\cdot\theta\right)\right]^2}}{\frac{n2 - i\cdot K}{n1}\cdot\cos\left(2\cdot\frac{\pi}{360}\cdot\theta\right) + \sqrt{1 - \left[\left(\frac{n1}{n2 - i\cdot K}\right)\cdot\sin\left(2\cdot\frac{\pi}{360}\cdot\theta\right)\right]^2}}$$

$$zrs(\theta) := \frac{\cos\left(2\cdot\frac{\pi}{360}\cdot\theta\right) - \left(\frac{n2 - i\cdot K}{n1}\right)\cdot\sqrt{1 - \left[\left(\frac{n1}{n2 - i\cdot K}\right)\cdot\sin\left(2\cdot\frac{\pi}{360}\cdot\theta\right)\right]^2}}{\cos\left(2\cdot\frac{\pi}{360}\cdot\theta\right) + \left(\frac{n2 - i\cdot K}{n1}\right)\cdot\sqrt{1 - \left[\left(\frac{n1}{n2 - i\cdot K}\right)\cdot\sin\left(2\cdot\frac{\pi}{360}\cdot\theta\right)\right]^2}}$$

$n1 \equiv 1 \quad n2 \equiv 1.5$ $\theta \equiv 0, 1 .. 90$ $K \equiv 2$