

Question 2

Q: What material properties are required for the electromagnetic analysis?
(Electromagnetic analysis/Hertz/Material property)

A: Required material properties include conductivity, relative permittivity, and relative permeability.

The conductivity can be input as data with temperature dependency.

The relative permittivity and relative permeability can be input as data with negative values, or left-handed system, anisotropy, frequency dependency, and $\tan\delta$.

Definition of $\tan\delta$

Relative permittivity : $\epsilon = \epsilon_r \times \epsilon_0 \times (1 - j \tan\delta)$

Relative permeability: $\mu = \mu_r \times \mu_0 \times (1 - j \tan\delta)$

Please refer to the Femtet help menu below for more information on each material property.

Home>How to Set Body Attribute, Material Property and Boundary Condition>Electromagnetic Analysis [Hertz]>Material Property