| | | |
|---|---|---|
| emw.Px | epsilon0_const*(emw.epsilonrxx*emw.Ex+emw.epsilonrxy*emw.Ey+emw.epsilonrxz*emw.Ez-emw.Ex) | C/m$^2$ |
| emw.Py | epsilon0_const*(emw.epsilonryx*emw.Ex+emw.epsilonryy*emw.Ey+emw.epsilonryz*emw.Ez-emw.Ey) | C/m$^2$ |
| emw.Pz | epsilon0_const*(emw.epsilonrzx*emw.Ex+emw.epsilonrzy*emw.Ey+emw.epsilonrzz*emw.Ez-emw.Ez) | C/m$^2$ |
| emw.normP | sqrt(realdot(emw.Px,emw.Px)+realdot(emw.Py,emw.Py)+realdot(emw.Pz,emw.Pz)) | C/m$^2$ |
| emw.Dx | epsilon0_const*emw.Ex+emw.Px | C/m$^2$ |
| emw.Dy | epsilon0_const*emw.Ey+emw.Py | C/m$^2$ |
| emw.Dz | epsilon0_const*emw.Ez+emw.Pz | C/m$^2$ |

What i expect, when i enter Relative permittivity (epsilonr), is :

$$\varepsilon = \varepsilon_r \varepsilon_0 = (1 + \chi)\varepsilon_0$$

and Dx=epsilon0_const*epsilonr_xj*Ej

but insteed according to equations i get:
Dx= epsilon0_const*(Ex+epsilonr_xj*Ej)

*permittivity acts as susceptibility, am I wrong?*
Should I enter Relative permittivity, for instance, for air as 0 insteed of 1 then?