Tabla de medios materiales

Electrostática y Magnetostática

($\hat{n}$ tiene dirección $1 \to 2$)

Material	**Ec. constitutiva**	**En volumen**	**En superficie**
Eléctrico	$\boldsymbol{D} = \varepsilon_0 \boldsymbol{E} + \boldsymbol{P}$	$\nabla \cdot \boldsymbol{E} = \rho_T / \varepsilon_0$ $\nabla \times \boldsymbol{E} = 0$ $\nabla \cdot \boldsymbol{D} = \rho_L$ $\nabla \times \boldsymbol{D} = \mathbf{J}_P$ $\nabla \cdot \boldsymbol{P} = -\rho_P$ $\nabla \times \boldsymbol{P} = \mathbf{J}_P$	$(\boldsymbol{E}_2 - \boldsymbol{E}_1) \cdot \hat{n} = \sigma_T / \varepsilon_0$ $(\boldsymbol{E}_2 - \boldsymbol{E}_1) \times \hat{n} = 0$ $(\boldsymbol{D}_2 - \boldsymbol{D}_1) \cdot \hat{n} = \sigma_L$ $(\boldsymbol{D}_2 - \boldsymbol{D}_1) \times \hat{n} = -\mathbf{K}_P$ $(\boldsymbol{P}_2 - \boldsymbol{P}_1) \cdot \hat{n} = -\sigma_P$ $(\boldsymbol{P}_2 - \boldsymbol{P}_1) \times \hat{n} = -\mathbf{K}_P$
Magnético	$\boldsymbol{B} = \mu_0 (\boldsymbol{H} + \boldsymbol{M})$	$\nabla \cdot \boldsymbol{B} = 0$ $\nabla \times \boldsymbol{B} = \mu_0 \boldsymbol{J}_T$ $\nabla \cdot \boldsymbol{H} = \rho_M$ $\nabla \times \boldsymbol{H} = \boldsymbol{J}_L$ $\nabla \cdot \boldsymbol{M} = -\rho_M$ $\nabla \times \boldsymbol{M} = -\boldsymbol{J}_M$	$(\boldsymbol{B}_2 - \boldsymbol{B}_1) \cdot \hat{n} = 0$ $(\boldsymbol{B}_2 - \boldsymbol{B}_1) \times \hat{n} = -\mu_0 \boldsymbol{K}_T$ $(\boldsymbol{H}_2 - \boldsymbol{H}_1) \cdot \hat{n} = \sigma_M$ $(\boldsymbol{H}_2 - \boldsymbol{H}_1) \times \hat{n} = -\boldsymbol{K}_L$ $(\boldsymbol{M}_2 - \boldsymbol{M}_1) \cdot \hat{n} = -\sigma_M$ $(\boldsymbol{M}_2 - \boldsymbol{M}_1) \times \hat{n} = \boldsymbol{K}_M$