

$$\vec{\nabla} \times \vec{H} = \vec{J}_f + \frac{\partial \vec{D}}{\partial t} - g_{\alpha\gamma\gamma} \sqrt{\frac{\epsilon_0}{\mu_0}} \left(\vec{B} \frac{\partial a}{\partial t} + \vec{\nabla} a \times \vec{E} \right)$$