Prep guide - Dynamic Maxwell equations and boundary conditions (now with matter!)

Big picture goal – Tidying up the last bits of the most complete forms of the Maxwell equations and the general boundary conditions that come from them.

1) What is a polarization current?

2) What do the dynamic Maxwell equations look like if we write them in terms of free sources only?

3) How does one get from a statement about the divergence or curl of a field to a general boundary condition for that field?