Abstracts

On the Use of the Coulomb Gauge in Solving Source-Excited Boundary Value Problems of Electromagnetics

The advantages and difficulties associated with the use of the Coulomb gauge in solving source-excited boundary value problems of electromagnetic are examined. The correct dyadic Green's function for the Coulomb vector potential in a rectangular waveguide is derived to elucidate the discussion. A flaw in the usage of the Coulomb gauge in Smythe's Static and Dynamic Electricity is uncovered.

❑ Return to main document.