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"Study of resonant cavities in vertical Indium Tin Oxide (ITO) nanorod arrays using FDTD"

Finite Difference Time Domain (FDTD) method is used to study the optical response of the cavities formed by vertical nanorod arrays made of Indium Tin Oxide (ITO), a transparent conducting Oxide. Surface plasmon polaritons can be excited at the interface between the ITO nanorods and dielectrics. Plasmonic resonance is observed at certain frequencies due to the cavity effect of the ITO nanorods.