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Authors:

Aditi Chopra

Sudipta Sarkar Pal

Randhir Bhatnagar

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Abstract

In the present study, a surface plasmon resonance (SPR) based fiber optic sensor is proposed. The extreme sensitivity of SPR modes on the surrounding refractive index has been exploited to make the sensor. The optical fiber is coated with gold film which supports the propagation of surface plasmons. The SPR dip in the transmission spectrum is observed and its shift with varying refractive indices of different concentrations of sucrose solutions are obtained.

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Index Terms

Computer Science

Signal Processing

Keywords

Surface Plasmon Resonance Plasmonic Sensor Optical Fiber Evanescent Wave.