

## **Influence of design parameters on the performance of a refractive index sensor based on SPR in plastic optical fibers**

### **ABSTRACT**

We report a refractive-index sensor based on surface plasmon resonance in etched plastic optical-fibers. Impact of fiber residual thickness and sensing length on the sensor's sensitivity is experimentally investigated.

**Keyword:** Plastic optical-fiber; Refractive index sensor; Sensitivity; Surface plasmon resonance