



## Single-molecule sensing with optoplasmonic microcavities

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### **Abstract**

Optoplasmonic microcavities are sensors developed in the past decade that combine the high quality factors of dielectric microcavities and the small nanometer-scale localization of electric fields by metal nanoparticles to achieve exceptional sensitivity for detecting single molecules in solution. These sensors have enabled the detection of single ions, enzyme activity and various ligand reactions/interactions. I will describe the photonic working principle of these sensors with a focus on the experimental aspects.

### **Reference:**

[Optical Whispering Gallery Modes for Biosensing | SpringerLink](#)