

Nanoplasmonics for Environmental Monitoring Applications

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Plasmonic nanoparticles such as gold and silver, as optical probes for trafficking molecules of interest, have proven more advantageous to organic fluorophores and chemophores due to stability, non-bleaching, sensitivity, and biocompatibility. In this talk, we will first briefly introduce a few examples of detection techniques with nanoplasmonic probes for environmental measurements. Then, we will discuss about our work on novel plasmon resonance energy transfer (PRET)-based detection for heavy metal ions in water.