

Heterogeneity of gold nanorod studied with two-dimensional electronic spectroscopy

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Gold nanorods (AuNRs) have shown great potentials in biological and biomedical application such as molecular imaging, drug delivery, or photothermal therapy[1]. The optical properties of these elongated nanoparticles depend on their shape anisotropy. The AuNR-based longitudinal localized surface plasmon resonance (longitudinal LSPR) band is very sensitive to the AuNR's aspect ratio and the surrounding local environment[2]. We investigate for the first time with a pulse-shaper-based two-dimensional electronic spectroscopy (2DES) these noble metal nanoparticles (Figure 1).

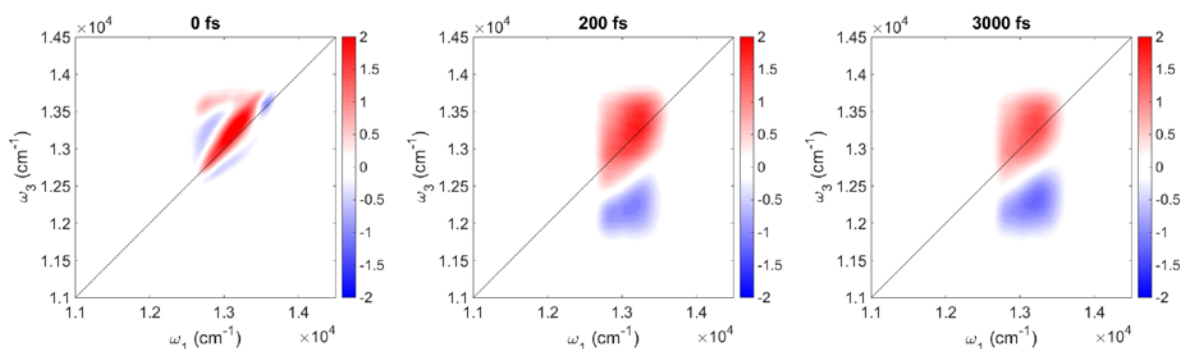


Figure 1: 2DES spectra of AuNR at different waiting time.

References

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