Formation of nanodroplets in ternary liquid mixtures

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Venue
東京農工大学 小金井キャンパス
6号館 501号室
Room 501, Building 6,
Koganei Campus TUAT

Heterogeneous nucleation and growth of droplets on surfaces under different flow conditions has recently advanced to a quantitative level. This talk will give an overview of our latest contributions to the formation and properties of surface droplets by solvent exchange and to point out the potential applications of surface nanodroplets in highly sensitive chemical analysis. We will present a universal femtoliter surface droplet-based platform for direct quantification of trace of hydrophobic compounds in aqueous solutions. In-situ quantification of the extracted analytes is achieved by surface-enhanced Raman scattering (SERS) spectroscopy by nanoparticles on the functionalized droplets.