

Hydration Dynamics Seen from the Inside: Possibilities of a Molecular THz Spectrometer

Prof. Nikolaus Ernsting
Humboldt-Universität Berlin

Abstract :

The terahertz (THz) absorption bands of molecular hydration layers are generally swamped by absorption from bulk water. This limitation can be overcome by using a molecular probe. By time-resolving the fluorescence shift of the probe, a local dielectric complex permittivity spectrum is obtained. For ionic liquids, it is then possible to determine the conductivity without electrode