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## **【917】 Infrared spectroscopy at the nanoscale – AFM-IR of soft materials**

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AFM-IR, or photothermal infrared nanospectroscopy, combines atomic force microscopy (AFM) and infrared (IR) spectroscopy, enabling chemical analysis with a spatial resolution in the order of 10 nm. Tapping mode AFM-IR is well-suited for the analysis of soft matter systems such as nanoparticles, biological macromolecules and polymers. The method allows mapping of the samples at specific wavenumbers and recording IR spectra at points of interest. The measured local IR spectra can be compared to Fourier-transform infrared (FTIR) spectra from bulk samples. Possessing one of only two AFM-IR instruments in Switzerland, Empa would like to welcome researchers working in the fields of materials science, biomedicine, and beyond for collaborative AFM-IR measurements.

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