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# Infrared scattering SNOM

Scattering SNOM is an optical technique that allows obtaining information about sample optical properties with nanoscale resolution. This is based on the local field enhancement effect, similar to the [TERS](#). However, here we don't need to collect a very small Raman signal, so the technique is easier to work even with not so ideal experimental conditions.

The most popular variant of this technique at present is the infrared scattering SNOM, which has the large benefit of obtaining some chemical information. So far it seems to be the most suitable technique for chemical resolution in the field of Scanning Probe Microscopy. Using FDTD we can simulate the performance of different probes manufactured for infrared SNOM measurements.

*TODO: update this and add the last datasets*

Sample parameter file: [IR SNOM probe](#).

A simulation of a long SNOM tip illuminated by infrared wavelength. Note that the metal properties are not adapted for the correct wavelength range.



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