

The Nanoscience Cooperative Research Center, CIC nanoGUNE, located in Donostia / San Sebastian, Basque Country (Spain), is currently looking for a

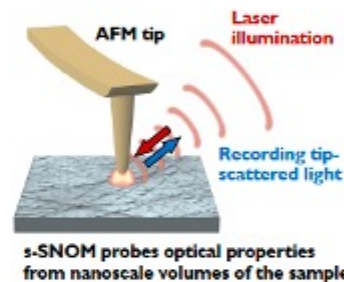
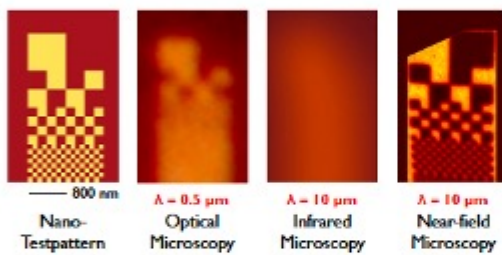
MASTER STUDENTS
to work on

- 1. Infrared (nano)spectroscopy for label-free diagnostics**
- 2. Development of an advanced near-field microscope for dual visible and infrared measurements at the nanoscale**
- 3. Optical generation of coherent vibrational states in a molecular ensemble: exploring non-linear optics with quantum states**

Nanooptics Group Projects

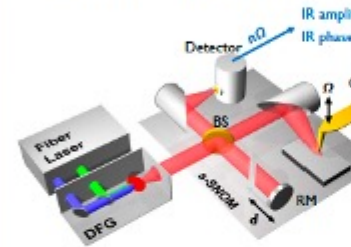
Infrared and THz Nano-Imaging and Spectroscopy

scattering-type Scanning Near-field Optical Microscopy (s-SNOM) beats the diffraction limit and allows for IR and THz nano-imaging



Philos. Trans. R. Soc. A 362, 787–805 (2004)

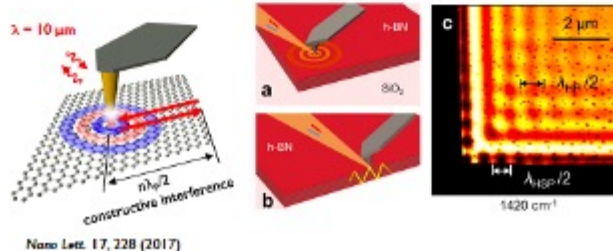
nano-FTIR: Fourier transform IR with nanoscale spatial resolution



Nat. Mater. 10, 352–356 (2011)
Nano Lett. 12, 3973–3978 (2012)

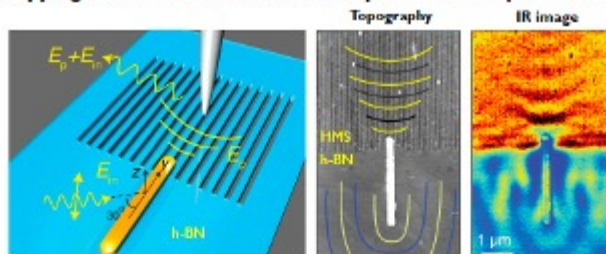
Exploration of Exotic Light Waves On The Nanoscale

Imaging volume and edge-confined HPhPs in hexagonal Boron Nitride



Nano Lett. 17, 228 (2017)

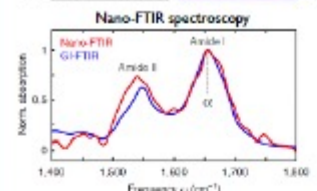
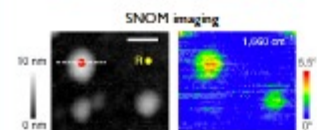
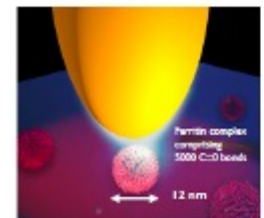
Mapping anomalous wavefronts of in-plane anisotropic HPhPs



Science 359, 892 (2018)

Chemical Analysis of

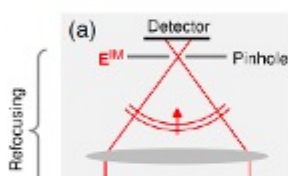
Infrared nano-spectroscopy of single protein complexes



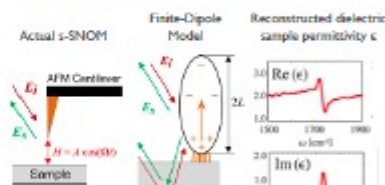
Nat. Comm. 8, 14402 (2017)

Development of SNOM Theory

Numerical s-SNOM model



Analytical model for quantitative measurements



Nanofabrication of

Nanofabrication and numerical modeling



Candidates should **apply** by completing the form below and attaching the following documents:

- a. A complete CV and academic record
- b. A motivation letter is also recommended

The **deadline** for applications is **29/02/2024**.

NOTES:

(i) All applicants will receive an answer after the end of the selection process; but please note that due to the large number of submissions that are expected, we cannot provide individual feedback.

(ii) Additional information about nanoGUNE's commitment towards [HR excellence in Research and Gender Equality](#) are available on our website.

(iii) We encourage you to subscribe to our [HR mailing list](#) to receive information related to nanoGUNE's open positions and open calls for different training and talent attraction programs.