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

MASTER STUDENT

to work on

Raman Spectroscopy in 2D materials

NanoGUNE is a research center devoted to conducting world-class nanoscience research for a competitive growth of the Basque Country. NanoGUNE is a member of the Basque Research and Technology Alliance (BRTA) and is recognized by the Spanish Research Agency as a María de Maeztu Unit of Excellence.

The significant growth, development, and evolution of technologies such as optoelectronics and spintronics have been always accompanied by the access to materials with targeted and extraordinary properties. Among these materials, 2D materials such as graphene, transition metal chalcogenides, metal phosphorus trichalcogenides or hybrid organic-inorganic metal-halide perovskites have attracted the attention due to their extraordinary electronic, optic, and magnetic properties and the possibility of control them by fine tuning the composition, crystal structure and dimensionality.

In this **project**, we will focus on micro-Raman spectroscopy as a non-destructive and powerful tool for gaining insight into phase transitions, crystal structure or molecules arrangement and how they change with the composition, structure, and dimensionality of the 2D materials. For this purpose, we will use single crystals and flakes of 2D materials as material platform. More information about our research into this topic can be found in this selection of our recent articles: Adv. Opt. Mater. 2024, 2400554; J. Mater. Chem. C 2024, 12, 2544; Adv. Funct. Mater. 2022, 2207988; and J. Phys: Mater. 2022, 5, 034004.

In this project, the student will be responsible for the design and preparation of the 2D materials by exfoliation and stamping on substrates. The student will be also involved in the Raman spectroscopy measurements (including low temperature or polarization tests), data analysis, and drafting of results.

We offer an international and competitive environment, state-of-the-art equipment (including a class 100 cleanroom for nanofabrication capabilities), and the possibility of performing research at the highest level.

CIC nanoGUNE's **Nanodevices Group** is mainly interested in the electronic properties of low-dimensional systems. Our research focuses spintronics, multifunctional devices and advanced nanofabrication. For more information, see our website at https://www.nanogune.eu/nanodevices

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

a. A complete CV

b. A cover letter

The **deadline** for applications is **13/03/2025.**

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.