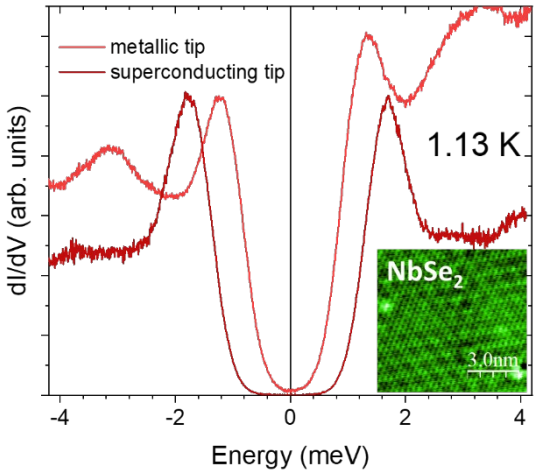
INMA
INSTITUTO DE NANOCIENCIA Y MATERIALES DE ARAGÓN
CSIC Universidad Zaragoza

EXCELENCIA SEVERO OCHOA
04/2024 - 03/2030
Ayuda CEX2023-001286-S financiada por
MINISTERIO DE CIENCIA, INNOVACIÓN Y UNIVERSIDADES
AGENCIA ESTATAL DE INVESTIGACIÓN

OPEN PhD POSITION

We seek highly motivated students holding a degree in Physics/Chemistry to fill a PhD position in Physics strongly focused towards Surface Science and Materials Science.

We offer a doctoral project in the topic of **'Quantum properties of two-dimensional arrays of rare earth atoms in contact with superconducting surfaces'**. The work is mainly experimental, and it will be carried out at the world-class scanning probe methods laboratory of the LMA in Zaragoza (population ca. 800,000 with flight and train connections to all major destinations). The selected candidate will complete a PhD thesis about the fabrication of 2D metalorganic frameworks (with lanthanide coordination metals) on superconductors (like $NbSe_2$ in the figure) and the characterization of the quantum interactions between them. This is a critical step in the priority research line to progress towards a hybrid quantum processor within the Severo Ochoa excellence centre.



Candidate's profile: Master's degree (or equivalent) in Physics, Materials Science, Nanotechnology, or a related field at the time of starting the contract (expected Jan 2026). Excellent written and verbal communication skills in English. We greatly appreciate previous experience with UHV techniques, scanning probe methods, low-temperature setups, and/or scientific software packages (e.g., MATLAB, Python, Origin, Igor, etcetera).

Type of contract: 4-years contract under the FPI (training of research personnel) program associated to the Severo Ochoa project.

Procedure and dealine: Telematic submission through the web interface of the official call. Deadline to be informed (expected Sept-Oct 2025). Please, send in advance your CV, cover letter and academic transcript with your marks to the PIs listed below.

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