

TWO POST-DOCTORAL POSITIONS AT ION ERREA'S GROUP AT THE UNIVERSITY OF THE BASQUE COUNTRY

Two motivated post-doctoral researchers with experience on *ab initio* calculations are sought to work on high-temperature superconducting hydrogen compounds

Ion Errea's research group at the *Materials Physics Center* of the University of the Basque Country in San Sebastian, Spain, is currently accepting applications for two post-doctoral positions to work on the *SuperH* ERC Starting Grant project, whose objective is the discovery of high-temperature hydrogen-based superconductors. This is a unique opportunity for highly motivated researchers to join a motivated group in a beautiful city with a thriving scientific community.

The selected candidates will be hired by the University of the Basque Country and the duration of the appointment will be of 2 years, which can be extended up to a third year upon mutual agreement. The preferred starting date will be September 2021. The salary will be of approximately 35,000 euros per year before taxes.

Applicants must have a PhD degree in Physics, Chemistry, Materials Science or similar before the starting date and must have experience with *ab initio* calculations. Interested candidates must send an updated CV, a brief statement of interests, and at least two reference letters including contact information to the following email address: ion.errea@ehu.eus. The positions will only be filled provided that qualified candidates are found.

Applications can be sent from now on and will be considered at least until the end of December 2020. The period will be expanded if suitable candidates are not found. Candidates may be interviewed in the evaluation process. Female candidates are strongly encouraged to apply.

The candidates will work on the second part of the SuperH project that is devoted to the prediction of new high-temperature superconducting hydrogen-based superconductors. Quantum and anharmonic effects on the lattice degrees of freedom will be considered in the calculations, making use of state-of-the-art software developed in the group. The following points are not required to apply, and nobody should be discouraged from applying if not fulfilled, but will be considered in the evaluation process:

- Experience with code programming in python and/or Fortran.
- Experience in the field of superconducting hydrogen-based compounds.
- Experience with crystal structure prediction methods.
- Experience with *ab initio* calculations within Migdal-Eliashberg theory.
- Experience in developing code within the Quantum Espresso package.

Do not hesitate to contact Ion Errea by email (ion.errea@ehu.eus) for further clarifications.