CALL FOR APPLICATIONS - January 2023

Research Assistant Position

Donostia International Physics Center (DIPC) is currently accepting applications for Research Assistant positions. This is a unique opportunity for highly motivated students, recently graduated from the University in Physics or related fields, to gain research experience in one of DIPC's high-profile research teams. A description of each of the available openings, contact information and deadlines can be found on the following pages.

Although candidates are welcome to contact the project supervisors to know further details about the proposed research activity, please be aware that the application will be evaluated only if it is submitted directly to the email address listed as "application email".

Applications received by the deadline will be evaluated by a Committee designed by the DIPC board on the basis of the following criteria:

- CV of the candidate (60%)
- Adequacy of the candidate's scientific background to the project (20%)
- Reference letters (10%)
- Other: Diversity in gender, race, nationality, etc. (10%)

Evaluation results will be communicated to the candidates soon after. Positions will only be filled if qualified candidates are found.

The DIPC may revoke its decision if the candidate fails to join by the appointed time, in which case the position will be awarded to the candidate with the next highest score, provided it is above 50 (out of 100).

However, the selected candidate may keep the position if, in the opinion of the Selection Committee, the candidate duly justifies the reasons why he or she cannot join before the specified deadline, and as long as the project allows it.

Ref. 2023/06
Magnetism and Excitonic Effects in Ilmenite Materials

Supervisor(s):
Andrés Ayuela (a.ayuela@csic.es)
Aritz Leonardo (aritz.leonardo@ehu.eus)

Duration: *1 year*

Application Deadline: *21/01/2023* ***Application Email:*** *jobs.research@dipc.org*

Bulk ilmenite is a titanium oxide mineral with the formula FeTiO3. Recent experiments measured the magnetic order and magnon excitation spectra in ilmenite. Similarly there are titanates with other transition metals currently being included in the group as they show the same structure. These oxides of titanium and transition metals are disposed of in the form of layers, so that they can be even chemically exfoliated. We are looking for a candidate to study the structural, electronic, and magnetic properties of CoTiO3-based bulk ilmenites within density functional theory, using the generalised gradient approximation and Hubbard-corrected approaches. It is also recommended to have experience in the calculation of excitons to continue with calculations on the optical properties of ilmenites.

Interested candidates should submit an updated CV and a brief statement of interest to the application email listed above. Reference letters are welcome but not indispensable. The reference of the specific opening to which the candidate is applying should also be stated in the subject line.