



4 Postdoctoral Research Fellowships in Computer Simulations, University of Aveiro, Portugal.

4 postdoctoral fellowships within European funded projects are available to work with [Dr. Manuel Melle Franco](#), at CICECO – Aveiro Institute of Materials, in Portugal.

We are searching for potential **candidates with a strong background in computer modelling in chemistry, physics or molecular biology** to perform DFT, wave function and tight-binding calculations, as well as method development, benchmarking and implementation.

All projects are highly multidisciplinary with a large experimental input from several international collaborators. Available topics are: fundamental studies 2D materials with exotic electronic properties, 2) modelling novel porous covalent framework materials and 3) biopolymers and proteins for green electronics (see funding section for more details).

Three possible levels of fellowships are currently available according to experience: 1) postdoc fellowship (up to 3 years after PhD), junior researcher (up to 5 years after PhD) and auxiliary researcher (more than 5 years after PhD) with gross salaries up to 3.201,40€ per month. Relevantly, incoming foreign researchers in Portugal automatically benefit for a 10 year reduced 20% flat tax rate which, together with the reduced cost of life, make the positions financially appealing.

The chosen candidates will join Manuel Melle's computational group currently integrating 1 bachelor student, 1 M.Sc. student, 3 PhD students, 1 Postdoc, 2 auxiliary researchers and 1 principal researcher. The group uses several state of the art workstations and has access to a cluster with nearly 1.5k cores, national and international HPC facilities and several simulation software licenses. The group focuses on understanding and predicting computationally the properties of novel molecules and materials and produces a sizable high-visibility research output ([updated list of publications](#)). Linux/Unix administration and programming experience is not mandatory but will be considered an asset.

Eligibility: PhD in Chemistry, Physics, Physics Engineering, Materials Science, Biochemistry or similar with a strong computer modelling component. Note that PhD degrees, in line with current legislation, must be legally recognized in Portugal by the start of the fellowships. This can be easily obtained from degrees in countries with automatic [degree and diploma recognition in Portugal](#).

Duration of offered contracts: until October 2025.

For more details on conditions, eligibility and how to apply, formal and informal inquiries may be directed to Dr. Manuel Melle-Franco (manuelmelle.group@gmail.com).

Funding

1. Alternative Superconducting Superlattice (SuperSuper). European Union, M-ERA.NET Program.
2. Fabricating and Implementing Exotic Materials from Covalent Organic Frameworks (FantastiCOF). European Union, Pathfinder program (ref.101046231).
3. Engineered Conductive Proteins for Bioelectronics (EPROT), European Union, Future and Emerging Technologies FET-Open program (ref: 964593).

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