Researcher in training at IMDEA Energy to work on

Metal organic frameworks (MOFs) and MOF composites as efficient electrolytes in proton-exchange membrane fuel cells (PEMFC)

The Institute IMDEA Energy is a Research Centre created by the Regional Government of “Comunidad de Madrid” to develop world-class R&D on clean and renewable energy. The ultimate goal of the Institute IMDEA Energy is to achieve outstanding scientific and technological contributions in the creation of a sustainable energy system. The aim of the Institute is to make a significant impact in all energy-related research topics by bringing together high quality researchers, providing them with excellent infrastructures and resources and promoting their close collaboration with the industrial sector.

IMDEA Energy is opening a researcher in training position on Novel proton-conducting MOF composites for fuel cell devices, with the following characteristics:

Your Tasks:

- Synthesis of multidentate organic ligands
- Design and synthesis of novel crystalline porous hybrid materials MOF type
- Shaping of the materials as mixed matrix membranes
- Full structural, physicochemical, textural and electrochemical characterization of the obtained materials using a large panel of techniques.
- Supervision of undergraduate and graduate staff working in the R&D unit
- Critical analysis and dissemination/publication of the results and writing of reports.

Your Qualification, experience and skills:

- Holding an official Master in Chemistry or Materials Science.
- Having no more than 4 years in possession of an official degree.
- Probed experience on basic techniques of (inorganic and hybrid) materials synthesis and basic organic chemistry.
- Probed experience on characterization methodologies (XRD, TGA, HPLC, DLS, fluid sorption, microscopies, IR, Raman, UV-Vis and impedance spectroscopies, etc.)
- Fluent oral and written communication skills in English.

Location: Móstoles, Madrid, Spain.

Remuneration: 13.300.00 € annual gross salary

Duration: One-year appointment. Expected starting date: January-March 2021

Reference: 20.32 MPA6 PRE

Applicants should send their Curriculum Vitae, covering letter and student records (BSc and MSc) with the obtained average marks (as well as recommendation letters, if any) not later than the 13th November at 15:00h to the following address:

email: patricia.horcajada@imdea.org

Subject: Reference 20.32 MPA6 PRE