

Post-Doctoral Position in plasma decomposition of CO₂, IPFN, IST, University of Lisbon, Portugal

Applications are invited for a Post-Doctoral Research position within the [N-PRiME](#) group of [IPFN](#), Instituto Superior Técnico, Universidade de Lisboa, Portugal, in the framework of project [PARADiSE](#).

PARADiSE consists of a thorough theoretical, modelling and experimental investigation of plasma decomposition of CO₂. It builds on the results of the previous project [PREMiERE](#) and explores three research lines: extension of the prior results to plasma sources widely used for technological applications; fundamental studies on the influence of impurities and industrial gases; and study of plasma-surface interactions and product separation. The work will be done in close collaboration with several foreign laboratories, that will conduct a series of measurement campaigns tailored to the needs of the project.

By its end the investigation will unveil the mechanisms underlying plasma CO₂ dissociation, identify the optimal conditions for a plasma reactor to operate and produce a proof-of-concept prototype, paving the Plasma RoAD to Solar fuEls (PARADiSE).

The post is offered on a full-time, for 1 year, with a possibility for extension up to 3 years. The start of the position is January/February 2022, but can be flexible up to April 2022. There will be excellent flexibility within the post to investigate various aspects of CO₂ plasma conversion.

The person should have a PhD in plasma physics, engineering physics, materials engineering, or similar fields. It is desirable that the person has experience in plasma modelling, or a demonstrated aptitude for learning new fields of research. Additionally, a strong track record of high-quality journal publications is an advantage.

Expression of interest to be sent by the end of November 2021.

Contact:

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