

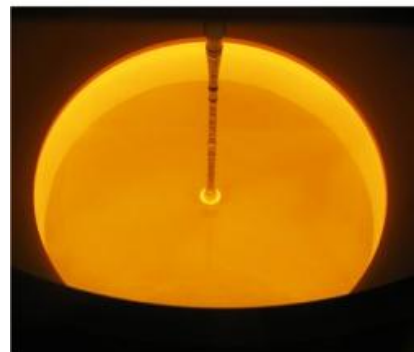


PhD Position on

HIGH TEMPERATURE ENERGY STORAGE AND CONVERSION USING THERMOPHOTOVOLTAICS

INTRODUCTION AND SCOPE

The research group “Silicon and Novel Concepts for Solar Cells” is looking for a candidate willing to follow the PhD to contribute to the development of a **novel kind of thermal energy storage system** that use molten metals and thermophotovoltaic devices for the direct conversion of heat into electricity. The PhD project will be aligned to a European Project called “**Next Generation Materials and Solid State Devices for Ultra High Temperature Energy Storage and Conversion**” (AMADEUS) that will start in January 2017. Special focus will be made on the development and characterization of thermophotovoltaic cells along with the realization of proof of concept experiments of the complete thermal storage unit.



REQUIREMENTS

- ❑ A degree in Physics, Mechanical Engineering, Electronic Engineering, Materials Science, etc.
- ❑ Excellent academic record (above 8.0)
- ❑ Knowledge on at least one of the following blocks: 1) semiconductor device physics, 2) thermal engineering.
- ❑ Full proficiency in English (and basic knowledge of Spanish –or will to get it!– for foreign applicants)

GENERAL CONDITIONS

- ❑ One-year fellowship is offered. In the course of the year, funding for the rest of the PhD (estimated additional duration of 3 years) will be asked for in public and private calls.
- ❑ Excellent experimental infrastructure and international atmosphere, attendance to international scientific conferences and research stays in partner labs in Europe.

APPLICATIONS

Interested candidates should send his/her resume and transcripts of all undergraduate and graduate (if any) coursework to Dr. Alejandro Datas (a.datas@ies-def.upm.es)

REFERENCES OF THE PROJECT

<http://www.futureenergyweb.es/pdf/articulos/Tecnologia.pdf>

http://www.upm.es/internacional/UPM/UPM_Channel/News/de6cc416ade97510VgnVCM10000009c7648aRCRD