

### **Postdoctoral Researcher on Perovskite materials and solar cells**

**Lead institution: University of Campinas, São Paulo Brazil**

CINE - Center for Innovation on New Energies ([www.cine.org.br](http://www.cine.org.br))

**Supervisor: Prof. Ana Flávia Nogueira**

Phone: +55 19 3521 3029

e-mail: [anafla@unicamp.br](mailto:anafla@unicamp.br)

#### **Description of Group/Project:**

The Center for Innovation on New Energies (CINE) is offering two (2) Postdoctoral positions for one year (with possible renovation for two years) to investigate the physical chemistry properties of perovskite materials and solar cells. The two projects will be developed at Dense Energy Carriers (DEC) division coordinated by Prof. Ana Flavia Nogueira. The group is expert on the synthesis and characterization of nanomaterials applied to emerging solar cells (as perovskite and dye sensitized solar cells) and light emitting devices. Our objectives are highly focused on the investigation of interfaces, new 2D metal-halide structures, novel hole transport materials, photophysics and high efficient and stable perovskite solar cells. The group collaborates with other research laboratories in the world and with the Brazilian National Synchrotron Laboratory.

Eligible applicants are required to have a PhD either in material science, physics, engineering or a related discipline. She/he will have proven experience in the fabrication of perovskite based optoelectronic devices. The successful candidate will be fluent in English.

#### **Main Tasks and responsibilities:**

Main task include: synthesis and characterization of metal-halide perovskites, oxides and hole transport materials, fabrication and characterization of thin films and devices. Electrical and/or photophysical characterization of thin films and solar cells. Ability to write in English and supervise Master and PhD students.

#### **Education, Experience, Knowledge and Competences required:**

Education:

-- PhD in Materials Science, Physics or Chemistry. Engineers are also welcome.

Knowledge:

-- Metal-halide perovskite solar cells, solution processing methods for solar cell fabrication, electrical and/or photophysical characterization of the materials and devices. Experience on two-dimensional metal-halide materials is welcome.

#### **Summary of conditions:**

- Full time work (40h/week)
- Contract Length: 12 months, with possible renovation for another 12 months
- Location: Campinas, São Paulo, Brazil
- Salary: R\$ 7,800.00
- Travel expenses from the departure country to GRU-airport in São Paulo are covered.

#### **How to apply:**

All applications must submit their information to [anafla@unicamp.br](mailto:anafla@unicamp.br). Please refer to CINE position" in the subject of the message. Please include:

- A cover letter.
- A full CV including contact details.
- 2 Reference letters or referee contacts.

**Deadline for applications: May, 31th**

*2 scholarships are available.*