# Postdoctoral position: hybrid organic-inorganic perovskites scrutinized by theory and simulations

A full-time postdoctoral research associate position is available in the department of theoretical inorganic chemistry at Institut des Sciences Chimiques de Rennes (ISCR, France) for a talented young researcher. The position is funded through the prestigious H2020 FET Open program under the GOTSOLAR proposal on *New technological advances for the third generation of Solar cells* for a period of 12 months. 18-month contract renewal will be considered within a French ANR project. The appointee will mainly work in the field of hybrid organic-inorganic perovskites that have recently made a breakthrough for photovoltaic applications and for which the simulation team in Rennes, which gathers physicists and chemists from FOTON's Lab (J. Even, L. Pedesseau) and ISCR (C. Katan, M. Kepenekian, R. Gautier), has developed international recognition. The position involves strong collaborations with world-class experimental teams.

A PhD Degree in Physics, Materials Science, Chemistry or related disciplines is required. We are looking for a candidate with a strong background in theoretical solid-state physics. Complementary skills in computational material science, such as codes based on density functional theory, simulation code development and/or expertise using MATLAB are desirable. The candidate shall be able to demonstrate his/her expertise in the above-mentioned fields through publications in high impact factor journals. A good command of English, both spoken and written, is mandatory. Autonomy and communication skills are also expected to participate in our project and benefit from the existing rewarding working atmosphere.

The applicant should send a detailed CV, including a list of publications and communications, and a motivation letter to claudine.katan@univ-rennes1.fr. E-mails of two scientists should also be given for possible request of recommendation letters. The selection will start immediately and will continue until the position is filled.

Related publications:


[1] *Solid-State Physics Perspective on Hybrid Perovskite Semiconductors*. Even, J.; Pedesseau, L.; Katan, C.; *et al.* **Journal of Physical Chemistry C**, 119, 10161-10177 (2015)

[2] *Rashba and Dresselhaus Effects in Hybrid Organic–Inorganic Perovskites: From Basics to Devices.* Kepenekian, M.; Robles, R.; Katan, C.; *et al*. **ACS Nano**, 9, 11557-11567 (2015)

[3] *Molecular disorder and translation/rotation coupling in the plastic crystal phase of hybrid perovskites*. Even, J.; Carignano, M.; Katan, C. **Nanoscale** (2016)

[4] *Quantum confinement and dielectric profiles of colloidal nanoplatelets of halide inorganic and hybrid organic-inorganic perovskites.* Sapori, D.; Kepenekian, M.; Pedesseau, L.; *et al.* **Nanoscale** (2016)