



**DAVID MUNOZ-ROJAS**

*From France to Sweden*



Project: **Electronic and optoelectronic materials**

Research topic: **Physics**

Swedish Institution: **Uppsala University**

French Institution: **INP Graduate School of Engineering and Management**

Dates of mobility: **11/11/2016 to 15/11/2016**

Program: **SFVE-A (ex-TOR)**



## PRESENTATION

[David Munoz-Rojas](#) is Research Director at the French National Center of Scientific Research ([CNRS](#)) Materials and Physical Engineering Laboratory ([LMGP](#)) at [Grenoble INP](#) Graduate School of Engineering and Management. His research focuses on the use and development of cheap and scalable chemical synthetic approaches for the fabrication of novel functional materials for electronic and optoelectronic applications. He obtained his PhD in Materials Science from the Instituto de Ciencia de Materiales de Barcelona ([ICMAB](#)) in 2004 and was habilitated in 2016 at the [University Grenoble Alpes](#).

## ACTIVITIES IN SWEDEN

The mobility started at [Midsummer AB](#), a spinoff solar cell company from the [University of Uppsala](#) (UU) and the [Ångström Laboratory](#). He was hosted by Patrice Bras and [Dr. Esko Nlemi](#) ([Aalto University](#)), in front of whom he presented the LMGP and research developments on Transport Conductive Materials (TCM) and Spatial Atomic Layer Deposition (SALD). The Swedish and French equivalents vary in method, LMGP specialize in chemical approaches whereas Midsummer use physical deposition methods, mainly sputtering. Complementary collaborations, among others joint European applications, were envisaged to make use of their respective capacities. Patrice Bras was invited to Grenoble, where he arranged a seminar and visited the lab.

Subsequently, Munoz-Rojas visited the Ångström Laboratory and the [Thin Film Solar Cells \(TFSC\) group](#) at UU, where he was hosted by [Dr. Jonathan Scragg](#) and held a seminar for the [Solid State Electronics division](#). He met with [Prof. Marika Edoff](#) and [Dr. Tobias Törndahl](#), working mainly on CIGS cells. Collaborations were planned, with the TFSC lab providing cells studied in LMGP.

Finally, he visited [Solibro AB](#) (a company developing CIGS cells), hosted by Development Engineer [Dr. Francis Chalvet](#). He had fruitful discussions with Dr. Chalvet and Dr. Olle Lundberg (now CTO of [Evolar](#)) on the optimization of materials properties and processing.