



Departamento de
Física de la
Materia Condensada
Universidad Zaragoza

SEMINARIOS 2024

David Muñoz-Rojas

Laboratoire des Matériaux et du Génie Physique,
CNRS/Grenoble INP

Fast printing of functional thin films

Spatial Atomic Layer Deposition (SALD) is a recent variant of ALD that offers fast processing, even at atmospheric pressure, while preserving the unique assets of ALD, namely, precise thickness control down to the nanometer, high-quality films even at low temperatures, and unique conformality. As a result, SALD is ideal for applications requiring high throughput at low cost, such as new generation photovoltaics, LEDs or packaging. But there is more to SALD than a faster and scalable version of ALD. I will illustrate how 3D printing can be used to prototype and customize close-proximity deposition heads. I will then present recent studies showing the effect of open-air processing on the properties of the thin films deposited with our close-proximity system and examples of applications of the thin films developed in our group.

Dr. David Muñoz-Rojas received his degree in organic chemistry in 1999 and master's degree in chemical engineering (2000) from the Instituto Químico de Sarrià (IQS, Barcelona, Spain), obtaining the P. Salvador Gil, S.I. 2000 prize. He did his PhD in materials science (2004) at the Instituto de Ciencia de Materiales de Barcelona (CSIC-UAB). Thereafter, he worked as a postdoc at the Laboratoire de Réactivité et Chimie des Solides in Amiens (France), the Research Centre for Nanoscience and Nanotechnology in Barcelona, and the University of Cambridge (Device Materials Group, UK). He is currently CNRS research director at the Laboratoire des Matériaux et du Génie Physique in Grenoble, France.

Con la colaboración de:



26 Abril (viernes)

HORA: 12:30

**SALA DE GRADOS
FACULTAD DE CIENCIAS**