



**The University of Namur (UNamur) and Innovative Coating Solutions (ICS), Belgium, are looking for Post-Doc researcher for the development of colored coatings by PVD.**

**2 years contract, starting September 2020.**

## Background

The purpose of this project is the development of colored coatings by PVD (Physical Vapour Deposition) on 3D objects. The method will not rely on the intrinsic refractive index of the coating or "Bragg mirror", but rather on a disruptive technology involving only PVD and the development of coatings with embedded nanoparticles. One of the main goal being to produce coating to create bright and deep colors which does not depends on the complexity or the orientation of the object.

The project is a two years project and will gather as partners UNamur and ICS ([www.incosol4u.com](http://www.incosol4u.com)), a spin-off of UNamur involved in plasma deposition processes.

It includes a) simulations and optimization by already developed FDTD (Finite-Difference Time-Domain) or RCWA (Rigorous Coupled Wave Approximation) codes, coupled with film growth modelling by kinetic Monte-Carlo (NASCAM code); b) experimental validation on 3D prototypes. This will be performed by PVD in an industrial batch coater.

The funding is willing to promote the mobility of researchers to Wallonia by attracting highly qualified researchers to Walloon companies (ICS here) where they will spend half of their stay while the other half will be at a university (UNamur here). Researcher should have spent less than 12 months in Belgium over the last 36 months on a professional basis and with an employment contract..

## Profile

A successful candidate must have

- A PhD degree in Physics or Material science,
- Experimental track record in PVD and material analysis (SEM, TEM, XPS, Nuclear Reactions)
- Experience in multiscale multi-physics simulations (user).

In addition, the candidate will have the following skills:

- Work in team
- Proficient in English
- French is a plus

Send a CV and motivation letter no later than March 20<sup>th</sup> 2020 to [stephane.lucas@unamur.be](mailto:stephane.lucas@unamur.be).

For any questions, please contact Prof. S. Lucas at +32 498 97 52 82.