



## ***GalnP nanowire solar cells on silicon***

### **Postdoc position**

Laboratoire de Photonique et de Nanostructures (LPN-CNRS)

Marcoussis, France

<http://www.lpn.cnrs.fr>

A postdoctoral position is available at the Ile-de-France Photovoltaic Institute (IPVF) to work in the Laboratoire de Photonique et de Nanostructures (LPN) of CNRS. The postdoc will be mainly working on molecular beam epitaxy of GalnP nanowires on silicon. The long-term goal of the project is to fabricate a 2-junction tandem cell using GalnP nanowires epitaxially grown on silicon. The tandem cell will consist of one planar Si-based junction and one radial junction based the GalnP nanowires. This system has a potential efficiency limit at 45%. The first goal of the postdoc will be to fabricate a GalnP single-junction solar cell on a passive silicon substrate. The research will involve: the fabrication by nanoimprint lithography of pre-patterned substrates used for the selective growth of nanowires; the optimization of the nanowires epitaxial growth by the vapor-solid-liquid method; the fabrication of the core-shell junction and the characterization of the nanowire solar cell. The post-doc will benefit from multidisciplinary environment that IPVF and LPN provide.

*The ideal candidate should have a PhD in Physics, Engineering or Materials Science and hands-on experience of epitaxial growth. Experience with nanofabrication, modeling and optoelectronic characterization would be a plus. Recent publications from the group can be found at <http://www.lpn.cnrs.fr/en/ELPHYSE/Nanowires.php>.*

*The positions will start immediately for a duration of 18 months. Interested applicants should submit a CV to: Jean-Christophe Harmand (<mailto:jean-christophe.harmand@lpn.cnrs.fr>) and Andrea Cattoni (<mailto:Andrea.Cattoni@lpn.cnrs.fr>). Applications will be reviewed as received until the position is filled.*

The gross salary is about 2700 €/month (2200 € net), in the case of a starting researcher. It includes Social Security and other various charges.