ESPCI PARIS

Post doctoral position : Nanothermics on nanoscale devices

https://www.espci.psl.eu/fr/espci-paris-psl/emploi/archives/2017/post-doctoral-position-nanothermics-on-nanoscale

Poste pourvu

Laboratoire d'accueil :

Laboratoire de Physique et d'Etude des Matériaux (LPEM) UMR 8213 ESPCI-CNRS 10 rue Vauquelin 75231 Paris Cedex 5 France

Context :

Measuring temperature quantitatively at a sub-micron scale has recently become an important challenge in many domains. For instance, due to the high density of their elementary structures, micro and nano-electronic devices tend to produce more and more heat at the local scale, thus creating hot spots that may degrade their characteristics. Another domain of interest is chemistry and biology where temperature elevation may occur during cell transformations. Within this context,several European research teams recently joined their efforts to develop and improve new tools for measuring temperature at the nanoscale and for solving problems In nanothermics (Quantiheat European project).

Work :

During the project, the researcher will carry on several experimental studies on devices fabricated during the Quantiheat project : micro and nano-heaters, membranes, nanowires, operating devices. He/she will perform thermal measurements with the fluorescent-SThM recently developed at ESPCI. He/she will also study heat transfer phenomena between the tip and the surface. He/she will have to interact with other teams that are involved in the project, for simulation and thermal characterizations.

Skills of the candidate :

Experimental work, experience in scanning probe microscopy / fluorescence microscopy needed

Début :

16/07/2017

Durée :

1 an

Contact

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Accès

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