C'NANO 2020
The Nanoscience Meeting
TOULOUSE
Centre des congrès Pierre Baudis
December, 8, 9 and 10

Nanoscale heat transfer - Measurement

(Last update: May 30th, 2020)

Description

The nanoscale heat transfer - measurements session(s) will cover recent and innovative developments in analytical techniques that can provide precise thermal characterization of structures, materials, systems and devices at the nanoscale or with nanoscale spatial resolution. The objective is both to highlight the capabilities of techniques for the determination of key thermal parameters (temperature for nanothermometry techniques, heat flux, calorific capacity, thermal conductance and effective thermal conductivity, and energy carrier's properties) and for a better understanding of heat transport within high impact materials and systems. One major focus will be on application of these techniques to new or complex materials and systems with high potential of industrial application, which includes nanoscale objects (nanowires, nanoparticles), and nanostructured thin films of organic, hybrid or inorganic semiconductors, bio nanotechnologies, functionalized surfaces etc. As many of these techniques depend on modelling for gaining results, effective material and system analysis and computational thermal analysis will be also a central subject.

Keywords

micro & nanoscale heat transfer; nanothermometry; thermal metrology at nanoscales; computational methods in nanoscale transport; nanoscale interfacial transport phenomena; temperature; thermophysical properties

Scientific committee

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In partnership with Club nanoMétrologie & LNE