



Announcement and Call for Contributions

International Workshop on Semiconductor quantum dot based devices and applications INSTITUT CURIE, PARIS, 16-17 March 2006

It is a great pleasure to invite you to the *International Workshop on Semiconductor quantum dot based devices and applications*. The workshop is organized in the framework of the European networks of excellence SANDIE “Self-Assembled semiconductor Nanostructures for new Devices in photonics and Electronics ” and EPIXnet “European Network of Excellence on Photonic Integrated Components and Circuits” and aims at bringing together researchers working in the field throughout the world. The workshop will cover various subjects related to laser devices, amplifiers, single photon emitters, detectors, intended for telecom applications, quantum cryptography, environnement and life sciences.

Background

Progress in the growth of semiconductor quantum dot (QD) structures, based in particular on the Stransky-Krastanov regime, has allowed the demonstration of many exciting properties related to the zero-dimensional character of these material systems. For the last decade or so significant improvement has hence been achieved in the performance of devices based on these nanostructures. QD based lasers have e.g. demonstrated reduced threshold current densities, improved dynamics and much higher temperature stability while optical amplifiers have shown very fast gain dynamics as well as record saturation powers. Much potential is also expected for single photon sources or devices based on intra-band transitions.

The scope of the workshop is to report on recent advances in the physics and performance of semiconductor quantum dot based devices, with emphasis on novel trends and applications in this exciting field.

• **Invited Speakers (to date)**

- L. F. Lester (U. New Mexico and ZIA Inc, Albuquerque, USA)
- A. Shields (Toshiba , Cambridge,UK)
- L. Asryan (Ioffe Institute, Virginia Tech)
- F. Lelarge (Alcatel,III-V lab, Marcoussis, France)
- A Kovsh (NLNanosemiconductors, Dortmund, Germany)
- Sugawara (Fujitsu, Japan):to be confirmed

- **Co-chairman:**

- S. Loualiche (INSA, France)
- A. Ramdane (LPN, France)

Schedule:

January 21, 2006
March 16-17, 2006

Deadline for submitting your contribution
Workshop

For further information and call for contributions : <http://iwsqda2006.insa-rennes.fr/>