

Website update – ESR-ER presentation template

Marie-Curie Fellow

Name: SUN

First Name: Jianwu

Gender: Male

Age: 28

Nationality: Chinese

Position (ER/ESR): ER



Host institution: Groupe d'Etudes des Semiconducteurs, Centre National de la Recherche Scientifique and Université Montpellier 2, Montpellier, France

Contract duration: 01/03/2009-31/08/2010

Short Education Background (10 lines max.)

Jianwu SUN obtained his Ph.D degree in July 2008, at the Changchun Institute of Optics, Fine Mechanics and Physics, Chinese Academy of Sciences, P. R. China. The Ph.D work was focused on growth, electrical, and optical characterizations of nitrogen-doped p-type ZnO films, multiple quantum wells and light emitting diodes.

Research focus and main activities carried out in the scope of the project (10 lines max.)

The ER position has started on March 1st, 2009. As ER, Jianwu SUN will investigate the optical properties of bulk and epitaxial SiC deposited in the framework of the research project. By using the Raman and continuous or time-resolved low-temperature photoluminescence measurements, the main effort will be focused on the studies about the doping level, defects (like stacking faults), and residual stress in SiC.

Publications (please specify when the publication has been issued in the scope of the MANSiC project)

- **Applied Physics Letters** **89**, 232101 (2006). J. W. Sun et al., "Hole transport in p-type ZnO films grown by plasma-assisted molecular beam epitaxy".
- **Journal of Applied Physics** **102** 043522 (2007). J. W. Sun et al., "Nitrogen-related recombination mechanisms in p-type ZnO films grown by plasma-assisted molecular beam epitaxy".

- **Solid State Communications 140 345–348 (2006).** J. W. Sun et al., “*The activation energy of the nitrogen acceptor in p-type ZnO film grown by plasma-assisted molecular beam epitaxy*”.
- **Journal of Physics D: Applied Physics 40 6541 (2007).** J. W. Sun et al., “*Room temperature excitonic spontaneous and stimulated emission properties in ZnO/MgZnO multiple quantum wells grown on sapphire substrate*”.
- **Journal of Physics D: Applied Physics 41 155103 (2008).** J. W. Sun et al., “*Excitonic electroluminescence from ZnO-based heterojunction light emitting diodes*”.
- **Nanotechnology 19 485401 (2008).** J. W. Sun et al., “*Well-width dependence of exciton-longitudinal-optical phonon coupling in MgZnO/ZnO single quantum wells*”.