



GEMaC

Groupe d'Étude de la Matière Condensée

PUBLICATIONS ET THÈSES NSP 2010-2014

2014

Articles

» R. Aad, C. Couteau, S. Blaize, E. Chastaing, F. Soyer, L. Divay, C. Galindo, P. Le Barny, V. Sallet, C. Sartel, A. Lusson, P. Galtier, L. Rocha, V. Simic, and G. Lerondel, "Efficient Pump Photon Recycling via Gain-Assisted Waveguiding Energy Transfer," ACS Photonics 1(3), 246–253 (2014).

» M. A. Boukadhaba, A. Fouzri, C. Saidi, N. Sakly, A. Souissi, A. Bchetnia, C. Sartel, V. Sallet, and M. Oumezzine, "Characterizations of ZnO and Zn(1-x)Cd_xO thin films grown on Zn- and O-face ZnO substrates by metal organic chemical vapor deposition," J. Cryst. Growth 395, 14–21 (2014).

- » W. Lee, T. Kiba, A. Murayama, C. Sartel, V. Sallet, I. Kim, R. A. Taylor, Y. D. Jho, and K. Kyhm, "Temperature dependence of the radiative recombination time in ZnO nanorods under an external magnetic field of 6T," *Opt. Express* 22(15), 17959–17967 (2014).
- » A. Fouzri, M. A. Boukadhaba, A. Toure, N. Sakly, A. Bchetnia, and V. Sallet, "Structural, morphological and optical properties of Cd doped ZnO film grown on a- and r-plane sapphire substrate by MOCVD," *Appl. Surf. Sci.* 311, 648–658 (2014).
- » A. Ray, R. Nori, P. Bhatt, S. Lodha, R. Pinto, V. R. Rao, F. Jomard, and M. Neumann-Spallart, "Optimization of a plasma immersion ion implantation process for shallow junctions in silicon," *J. Vac. Sci. Technol. A* 32(6), 061302 (2014).
- » E. Zehani, S. Hassani, A. Lusson, F. Jomard, P. Galtier, V. Sallet, "Post-growth annealing treatment of ZnO nanowires with arsenic and phosphorus sources" *Physica Status Solidi C – Current Topics in Solid State Physics* (2014) 11 (7-8) 1221-4.

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- » Neumann-Spallart, M., Shinde, S.S., Mahadik, M., Bhosale, C.H., "Photoelectrochemical degradation of selected aromatic molecules", *Electrochimica Acta* 111, p. 830-836 (2013)
- » Stenger, I., Pinault-Thaury, M.A., Kociniowski, T., Lusson, A., Chikoidze, E., Jomard, F., Dumont, Y., Chevallier, J., and Barjon J., "Impurity-to-band activation energy in phosphorus doped diamond" *J. of Appl. Phys.*, 114, 073711 (2013).
- » Souissi, A., Haneche, N., Meftah, A., Sartel, C., Vilar, C., Lusson, A., Galtier, P., Sallet, V., and Oueslati, M., "Structural and optical characterisations of nitrogen doped ZnO nanowires grown by MOCVD", *Journal of Luminescence*, 2013. 136 : p.265-269 (2013)

- » Sallet, V., Sartel, C., Vilar, C., Lusson, A., and Galtier, P., "Opposite crystal polarities observed in spontaneous and vapor-liquid-solid grown ZnO nanowires", *Applied Physics Letters*, 2013. 102(18) (2013).
- » Montenegro, D.N, Hortelano, V, Martinez, O., Martinez-Tomas, M.C., Sallet, V., Munoz-Sanjose, V., and Jimenez, J., "Non-radiative recombination centres in catalyst-free ZnO nanorods grown by atmospheric-metal organic chemical vapour deposition", *Journal of physics D-Applied Physics*, 2013. 46(23) (2013)
- » Marzouki, A., Sayari, A., Jomard, F., Sallet, V., Lusson, A., and Oueslati, M., "Carrier gas and VI/II ratio effects on carbon clusters incorporation into ZnO films grown by MOCVD", *Materials Science in Semiconductor processing*. 2013. 16(3) : p. 1022-1028 (2013)

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Articles:

- » A. Fouzri, M. A. Boukadhaba, M. Oumezzine, and V. Sallet. Structural properties and morphology of Zn(1-x)Cd_xO solid solution grown on ZnO and C-plane sapphire substrate. *THIN SOLID FILMS*, 520(7):2582–2588 (2012).
- » M. A. Pinault-Thaury, B. Berini, I. Stenger, E. Chikoidze, A. Lusson, F. Jomard, J. Chevallier, and J. Barjon. High fraction of substitutional phosphorus in a (100) diamond epilayer with low surface roughness. *APPLIED PHYSICS LETTERS*, 100 (19) (2012).
- » A. Souissi, C. Sartel, A. Sayari, A. Meftah, A. Lusson, P. Galtier, V. Sallet, and M. Oueslati. Zn- and O-polar surface effects on Raman mode activation in homoepitaxial ZnO thin films. *SOLID STATE COMMUNICATIONS*, 152(9):794–797 (2012).
- » A. Souissi, C. Sartel, G. Amiri, A. Meftah, A. Lusson, P. Galtier, V. Sallet, and M. Oueslati. Raman study of activated quasi-modes due to misorientation of ZnO nanowires. *SOLID STATE COMMUNICATIONS*, 152, p794 (2012).

Thèse:

» A. Souissi, Elaboration et caractérisation structurale et optique des nanofils de ZnO: étude des modes de vibration par spectroscopie Raman (14 juillet 2012, Tunis)

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» F. Gemain, I. C. Robin, M. De Vita, S. Brochen, and A. Lusson. Identification of the double acceptor levels of the mercury vacancies in HgCdTe. APPLIED PHYSICS LETTERS, 98(13), MAR 28 2011.

» Corinne Sartel, Nadia Haneche, Christele Vilar, Gaelle Amiri, Jean-Michel Laroche, Francois Jomard, Alain Lusson, Pierre Galtier, Vincent Sallet, Christophe Couteau, Jenny Lin, Roy Aad, and Gilles Lerondel. Growth studies and optical properties of Zn_{1-x}Cd_xO films grown by metal-organic chemical-vapor deposition. JOURNAL OF VACUUM SCIENCE & TECHNOLOGY A, 29(3), MAY 2011.

» A. Souissi, A. Marzouki, A. Sayari, V. Sallet, A. Lusson, and M. Oueslati. Origin of the Raman mode at 379 cm⁻¹ observed in ZnO thin films grown on sapphire. JOURNAL OF RAMAN SPECTROSCOPY, 42(7):1574–1577, JUL 2011.

» A. Fouzri, V. Sallet, and M. Oumezzine. A comparative structure and morphology study of Zn_(1-x)Cd_xO solid solution grown on ZnO and different sapphire orientations. JOURNAL OF CRYSTAL GROWTH, 331(1):18–24, SEP 15 2011.

» M. Neumann-Spallart. Photoelectrochemistry on a planar, interdigitated electrochemical cell. ELECTROCHIMICA ACTA, 56(24):8752–8757, OCT 1 2011.

Thèses:

» F. Falyouni, Croissance et propriétés de nanostructures à base de ZnO (22 juillet 2011, Versailles)

» A. Ribeaud, Croissance par Dépôt Chimique en Phase Vapeur de Films Minces de ZnO et de MgZnO (8 décembre 2011, Grenoble).

- » N. Haneche, Etudes optiques de ZnO et des solutions solides $\text{Zn}(1-x)\text{Mg}_x\text{O}$ et $\text{Zn}(1-x)\text{Cd}_x\text{O}$; conception de nanostructures et dopage de type p (9 décembre 2011, Versailles)
- » A. Marzouki, Croissance et caractérisation optique et électrique de films de ZnO dopés azote et antimoine (31 mars 2011, Versailles).

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- » G. A. Verozubova, A. Yu. Trofimov, E. M. Trukhanov, A. V. Kolesnikov, A. O. Okunev, Yu. F. Ivanov, P. R. J. Galtier, and S. A. Said Hassani. Melt Nonstoichiometry and Defect Structure of ZnGeP_2 Crystals. CRYSTALLOGRAPHY REPORTS, 55(1):65–70, JAN 2010.
- » C. Thiandoume, A. Lusson, P. Galtier, and V. Sallet. Temperature dependence of $\text{Zn}_{1-x}\text{Mg}_x\text{O}$ films grown on c-plane sapphire by metal organic vapor phase epitaxy. JOURNAL OF CRYSTAL GROWTH, 312(9):1529–1533, APR 15 2010.
- » M. Neumann-Spallart and S. B. Sadale. Photoelectrocatalysis with Drop-Cast Tungsten Trioxide Films. JOURNAL OF NEW MATERIALS FOR ELECTROCHEMICAL SYSTEMS, 13(2):127–131, APR 2010.
- » Sundeep H. Deulkar, Jow-Lay Huang, and Michael Neumann-Spallart. Zinc Oxysulfide Thin Films Grown by Pulsed Laser Deposition. JOURNAL OF ELECTRONIC MATERIALS, 39(5):589–594, MAY 2010.
- » A. Sayari, A. Marzouki, A. Lusson, M. Oueslati, and V. Sallet. Annealing and partial pressure ratio effects on ZnO films grown by metal-organic chemical vapor deposition using tert-butanol as oxidant. THIN SOLID FILMS, 518(23):6870–6875, SEP 30 2010.
- » A. Marzouki, F. Falyouni, N. Haneche, A. Lusson, P. Galtier, L. Rigutti, G. Jacopin, M. Tchernycheva, M. Oueslati, and V. Sallet. Structural and optical characterizations of nitrogen-doped ZnO nanowires grown by MOCVD. MATERIALS LETTERS, 64(19): 2112–2114, OCT 15 2010.

» A. Marzouki, A. Lusson, F. Jomard, A. Sayari, P. Galtier, M. Oueslati, and V. Sallet. SIMS and Raman characterizations of ZnO:N thin films grown by MOCVD. JOURNAL OF CRYSTAL GROWTH, 312(21):3063–3068, OCT 15 2010.