

## Publications

- [1] F. Demaria, S. Lorch, S. Menzel, M.C. Riedl, F. Rinaldi, R. Rösch, and P. Unger, “Design of highly efficient high-power optically pumped semiconductor disk lasers”, *IEEE J. Select. Topics Quantum Electron.*, vol. 15, no. 3, pp. 973–977, 2009.
- [2] J. Hertkorn, S.B. Thapa, T. Wunderer, F. Scholz, Z.H. Wu, Q.Y. Wei, F.A. Ponce, M.A. Moram, C.J. Humphreys, C. Vierheilig, and U.T. Schwarz, “Highly conductive modulation doped composition graded p-AlGaN/(AlN)/GaN multiheterostructures grown by metalorganic vapor phase epitaxy”, *J. Appl. Phys.*, vol. 106, pp. 013720-1–6, 2009.
- [3] R.A.R. Leute, M. Feneberg, R. Sauer, K. Thonke, S.B. Thapa, F. Scholz, Y. Taniyasu, and M. Kasu, “Photoluminescence of highly excited AlN: biexcitons and exciton-exciton scattering”, *Appl. Phys. Lett.*, vol. 95, pp. 031903-1–3, 2009.
- [4] F. Lipski, S.B. Thapa, J. Hertkorn, T. Wunderer, S. Schwaiger, F. Scholz, M. Feneberg, M. Wiedenmann, K. Thonke, H. Hochmuth, M. Lorenz, and M. Grundmann, “Studies towards freestanding GaN in hydride vapor phase epitaxy by in-situ etching of a sacrificial ZnO buffer layer”, *phys. stat. sol. (c)*, vol. 6, pp. (S2):S352–S355, 2009.
- [5] R. Michalzik, J.M. Ostermann, A. Al-Samaneh, D. Wahl, F. Rinaldi, and P. Debernardi, “Polarization-stable VCSELs for optical sensing and communications” (invited), in Proc. (CD ROM) *The 14th OptoElectronics and Communications Conf., OECC 2009*, paper TuC2, two pages. Hong Kong, China, July 2009.
- [6] R. Michalzik, M. Stach, F. Rinaldi, and D. Wahl, “Integrated optoelectronic chips for bidirectional optical interconnection at Gbit/s data rates”, in Proc. *Fifth Joint Symposium on Opto- and Microelectronic Devices and Circuits, SODC 2009*, pp. 132–135. Beijing, China, May 2009.
- [7] R. Michalzik, A. Kroner, A. Bergmann, and F. Rinaldi, “VCSEL-based optical trapping for microparticle manipulation” (invited), in *Vertical-Cavity Surface-Emitting Lasers XIII*, K.D. Choquette, C. Lei (Eds.), Proc. SPIE 7229, pp. 722908-1–13, 2009.
- [8] F. Scholz, S.B. Thapa, M. Fikry, J. Hertkorn, T. Wunderer, F. Lipski, A. Reiser, Y. Xie, M. Feneberg, K. Thonke, R. Sauer, M. Dürrschnabel, L.D. Yao, and D. Gerthsen, “Epitaxial growth of coaxial GaInN-GaN hetero-nanotubes”, *IOP Conf. Ser.: Mater. Sci. Eng.*, vol. 6, pp. 012002-1–4, 2009.
- [9] F. Scholz, T. Wunderer, B. Neubert, M. Feneberg, K. Thonke, “GaN-based light-emitting diodes on selectively grown semipolar crystal facets”, *MRS Bull.*, vol. 34, pp. 328–333, 2009.
- [10] T. Wunderer, F. Lipski, S. Schwaiger, J. Hertkorn, M. Wiedenmann, M. Feneberg, K. Thonke, and F. Scholz, “Properties of blue and green InGaN/GaN quantum well emission on structured semipolar surfaces”, *Jpn. J. Appl. Phys.*, vol. 48, pp. 060201-1–3, 2009.

- [11] T. Wunderer, F. Lipski, J. Hertkorn, S. Schwaiger, and F. Scholz, “Fabrication of 3D InGaN/GaN structures providing semipolar GaN planes for efficient green light emission”, *phys. stat. sol. (c)*, vol. 6, pp. (S2):S490–S493, 2009.
- [12] J. Bläsing, A. Krost, J. Hertkorn, F. Scholz, L. Kirste, A. Chuvalin, and U. Kaiser, “Oxygen induced strain field homogenization in AlN nucleation layers and its impact on GaN grown by metal organic vapor phase epitaxy on sapphire: an x-ray diffraction study”, *J. Appl. Phys.*, vol. 105, pp. 033504-1–9, 2009.
- [13] P. Debernardi, A. Kroner, F. Rinaldi, and R. Michalzik, “Surface relief versus standard VCSELs: a comparison between experimental and hot-cavity model results”, *IEEE J. Select. Topics Quantum Electron.*, vol. 15, pp. 828–837, 2009.
- [14] N.C. Gerhardt, S. Hoevel, M. Li, H. Jaehme, M.R. Hofmann, T. Ackemann, A. Kroner, and R. Michalzik, “Ultrafast spin dynamics in spin-polarized vertical-cavity surface-emitting laser devices”, in Proc. *Conf. on Lasers and Electro-Optics, CLEO 2009*, paper CMRR6, two pages. Baltimore, MD, USA, May/June 2009.
- [15] R. Jabbarov, N. Musayeva, F. Scholz, T. Wunderer, A.N. Turkin, S.S. Shirokov, und A.E. Yunovich, “Preparation and optical properties of Eu<sup>2+</sup> doped CaGa<sub>2</sub>S<sub>4</sub>-CaS composite bicolor phosphor for white LED”, *phys. stat. sol. (a)*, vol. 206, pp. 287–292, 2009.
- [16] Q. Wei, Z. Wu, K. Sun, F.A. Ponce, J. Hertkorn, and F. Scholz, “Evidence of two-dimensional hole gas in p-type AlGaN/AlN/GaN heterostructures”, *Appl. Phys. Express*, vol. 2, pp. 121001-1–3, 2009.
- [17] T. Malinauskas, K. Jarasiunas, M. Heukan, F. Scholz, and P. Brckner “Diffusion and recombination of degenerate carrier plasma in GaN”, *physica status solidi (c)*, vol. 6, no. S2, pp. S743–S746, 2009.