Talks and Conference Contributions

[1] A. Bergmann, A. Hein, and R. Michalzik, "Vertical-cavity surface-emitting laser arrays for miniaturized integrated optical lattice modules", *Conf. on Lasers and Electro-Optics Europe, CLEO/Europe 2013*, Munich, Germany, May 2013.

[2] A. Bergmann, J.A. Martos Calahorro, A. Hein, D. Wahl, and R. Michalzik, "Miniaturized sorting by optical lattices based on integrated vertical-cavity laser diodes", *2nd EOS Conference on Optofluidics, EOSOF 2013*, Munich, Germany, May 2013.

[3] M. Caliebe, T. Meisch, S. Lazarev, S. Bauer, and F. Scholz, "Crystal quality improvement of MOVPE grown semipolar GaN on prestructured sapphire substrates", poster at *15th European Workshop on Metalorganic Vapour Phase Epitaxy, EWMOVPE XV*, Aachen, Germany, June 2013.

[4] M. Caliebe, T. Meisch, B. Neuschl, K. Thonke, and F. Scholz, "Crystal quality improvement of MOVPE grown semipolar GaN on prestructured sapphire substrates", poster at *10th International Conference on Nitride Semiconductors, ICNS*, Washington, D.C., USA, Aug. 2013.

[5] M. Caliebe, T. Meisch, Z. Cheng, B. Neuschl, S. Bauer, J. Helbing, K. Thonke, Y. Han, S. Lazarev, S. Bauer, and F. Scholz, "Investigations about SiN interlayers in $(11\bar{2}2)$ GaN layers grown on patterned substrates", *PolarCon Summerschool*, Wernigerode, Germany, Sept. 2013.

[6] M. Caliebe, T. Meisch, Z. Cheng, and F. Scholz, "Influence of sapphire miscut on $(11\bar{2}2)$ oriented GaN grown by MOVPE on pre-structured sapphire substrates", *28th DGKK Workshop on Epitaxy of III-V-Semiconductors*, Ilmenau, Germany, Dec. 2013.

[7] A. Hein, S. Menzel, A. Ziegler, R. Rösch, and P. Unger "Frequency doubled high-power semiconductor disk lasers for stereo projection and ion traps", *SPIE Optics + Photonics 2013, Photonic Fiber and Crystal Devices: Advances in Materials and Innovations in Device Applications VII*, San Diego, CA, USA, Aug. 2013.

[8] A. Hein, "Optically pumped semiconductor disk lasers: design, growth, characterization and potential applications" seminar talk, *Physics and Astronomy Department, University of Southampton*, Southampton, United Kingdom, Nov. 2013.

[9] D. Heinz, M. Fikry, G. He, I. Tischer, M. Madel, K. Thonke, and F. Scholz, "Realization of nitrogen-polar GaN structures and layers by MOVPE", poster at *15th European Workshop on Metalorganic Vapour Phase Epitaxy, EWMOVPE XV*, Aachen, Germany, June 2013.

[10] D. Heinz, M. Fikry, T. Meisch, M. Madel, S. Bauer, F. Huber, M. Hocker, I. Tischer, M. Frey, B. Neuschl, K. Thonke, and F. Scholz, "Growth of GaN micro- and nanostructures for sensor applications", poster at *Forschungstag BW-Stiftung*, Stuttgart, Germany, July 2013.

[11] D. Heinz, M. Fikry, T. Aschenbrenner, M. Schowalter, T. Meisch, M. Madel, F. Huber, M. Hocker, M. Frey, I. Tischer, B. Neuschl, T. Mehrtens, K. Müller, A. Rosenauer, D. Hommel, K. Thonke, and F. Scholz, "GaN nanotubes with coaxial GaInN quantum wells", *10th International Conference on Nitride Semiconductors, ICNS*, Washington, D.C., USA, Aug. 2013.

[12] D. Heinz, F. Huber, M. Madel, M. Fikry, I. Tischer, M. Frey, S. Bauer, J. Jakob, K. Thonke, and F. Scholz, "Coaxial Ga(In)N heterostructures grown on ZnO nanowires", *SemiconNano*, Lake Arrowhead, CA, USA, Oct. 2013.

[13] D. Heinz, M. Fikry, T. Aschenbrenner, M. Schowalter, T. Meisch, M. Madel, F. Huber, M. Hocker, I. Tischer, T. Mehrtens, K. Müller, G. He, M. Frey, J. Jakob, B. Neuschl, D. Hommel, A. Rosenauer, K. Thonke, and F. Scholz, "Ga(In)N micro- and nanostructures for optical gas sensing", poster at *Statusworkshop Kompetenznetz "Funktionelle Nanostrukturen"*, Bad Herrenalb, Germany, Oct. 2013.

[14] D. Heinz, G. He, O. Rettig, R.A.R. Leute, M. Madel, F. Huber, M. Hocker, I. Tischer, B. Neuschl, K. Thonke, and F. Scholz, "Investigations of N-polar GaN micro- and nanostructures grown by MOVPE", *28th DGKK Workshop on Epitaxy of III-V-Semiconductors*, Ilmenau, Germany, Dec. 2013.

[15] N.I. Khan, A. Bergmann, and R. Michalzik, "Fabrication of integration-capable surface-relief VCSEL arrays for miniaturized optical manipulation of microparticles", *2nd Int. Conf. on Advances in Electr. Engin., ICAEE*, Dhaka, Bangladesh, Dec. 2013.

[16] R.A.R. Leute, J. Wang, T. Meisch, and F. Scholz, "Growth studies on submicrometer-sized GaN stripes with semipolar QWs", *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.

[17] R.A.R. Leute, T. Meisch, J. Wang, J. Biskupek, U. Kaiser, M. Müller, P. Veit, F. Bertram, J. Christen, and F. Scholz, "GaN laser structure with semipolar quantum wells and embedded nanostripes", *10th Conf. on Lasers and Electro-Optics Pacific Rim (CLEO-PR)*, Kyoto, Japan, June 2013.

[18] R.A.R. Leute, D. Heinz, J. Wang, T. Meisch, and F. Scholz, "Nanolithographic patterning for selective area epitaxy of gallium nitride", *DGKK Workshop Epitaxie von III/V-Halbleitern*, Ilmenau, Germany, Dec. 2013.

[19] T. Meisch, S. Schörner, J. Wang, K. Thonke, and F. Scholz, "InGaN quantum wells grown on 2" semipolar GaN", *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.

[20] T. Meisch and F. Scholz, "MOVPE growth of semipolar $(20\bar{2}1)$ GaN on $(22\bar{4}3)$ 2" patterned sapphire substrates", poster at *15th European Workshop on Metalorganic Vapour Phase Epitaxy, EWMOVPE XV*, Aachen, Germany, June 2013.

[21] T. Meisch and F. Scholz, "$(20\bar{2}1)$ GaN grown on 2" patterned sapphire substrates", poster at *10th International Conference on Nitride Semiconductors, ICNS*, Washington, D.C., USA, Aug. 2013.

[22] T. Meisch, F. Scholz, J. Wang, S. Schörner, B. Neuschl, S. Bauer, K. Thonke, H. Bremers, and A. Hangleiter, "InGaN quantum wells grown on 2" GaN – a comparison between (0001), $(10\bar{1}1)$ and $(11\bar{2}2)$ GaN", *10th International Conference on Nitride Semiconductors, ICNS*, Washington, D.C., USA, Aug. 2013.

[23] R. Michalzik, "Bidirectional optical transmission over multimode fibers" (in German), Working Group *Optical Communications* within the Photonics BW Association, Stuttgart, Germany, Feb. 2013.

[24] R. Michalzik, M.J. Miah, A. Al-Samaneh, and D. Wahl, "Dynamic characteristics of inverted grating relief VCSELs for Cs-based microscale atomic clocks", *Conf. on Lasers and Electro-Optics Europe, CLEO/Europe 2013*, Munich, Germany, May 2013.

[25] F. Scholz, T. Meisch, S. Schwaiger, S. Schörner, M. Caliebe, P. Schustek, S. Metzner, F. Bertram, T. Hempel, J. Christen, I. Tischer, K. Thonke, S. Lazarev, S. Bauer, T. Baumbach, J. Thalmair, and J. Zweck, "Semipolar GaN-based optoelectronic structures on large area substrates" (invited), *SPIE Photonics West*, San Francisco, CA, USA, Feb. 2013.

[26] F. Scholz, "Semipolar nitride structures: more efficient LEDs?", seminar talk, *Universität Paderborn*, Paderborn, Germany, July 2013.

[27] F. Scholz, T. Meisch, M. Caliebe, M. Klein, S. Schörner, B. Neuschl, K. Thonke, S. Bauer, S. Lazarev, T. Baumbach, L. Kirste, Y. Han, and C. Humphreys, "Semipolar GaInN-GaN hetero structures on large area substrates", *17th International Conference on Crystal Growth and Epitaxy, ICCGE*, Warsaw, Poland, Aug. 2013.

[28] F. Scholz, "Semipolar nitride structures: more efficient LEDs?", seminar talk, *IFW Dresden*, Dresden, Germany, Aug. 2013.

[29] F. Scholz, T. Meisch, M. Caliebe, S. Schwaiger, S. Metzner, F. Bertram, J. Christen, I. Tischer, B. Neuschl, K. Thonke, S. Lazarev, S. Bauer, T. Baumbach, H. Bremers, and A. Hangleiter, "Semipolar GaN-based optoelectronic structures on large area substrates" (invited), *International Conference and Exhibition on Lasers, Optics and Photonics, Optics-2013*, San Antonio, Texas, USA, Oct. 2013.

[30] F. Scholz, "Solid State Lighting – LEDs statt Glühbirnen: Wie funktioniert's?", *Tag der offenen Tür*, University Ulm, Germany, Nov. 2013.

[31] P. Unger, A. Hein, F. Demaria, S. Menzel, M. Rampp, and A. Ziegler "Design of high-efficiency semiconductor disk lasers" (invited tutorial), *SPIE Photonics West 2013, Vertical-External-Cavity Surface-Emitting Lasers (VECSELs) III*, San Francisco, CA, USA, Feb. 2013.

[32] J. Wang, M. Hocker, R.A.R. Leute, and F. Scholz, "InGaN/GaN based semipolar light emitting diodes", *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.

[33] J. Wang, B. Neuschl, T. Meisch, K. Thonke, and F. Scholz, "Optical absorption of c-plane and semipolar InGaN/GaN quantum wells", poster at *10th International Conference on Nitride Semiconductors, ICNS*, Washington, D.C., USA, Aug. 2013.

[34] B. Westenfelder, F. Eder, J. Kotakoski, T. Amender, J. Biskupek, S. Kurasch, F. Scholz, J.C. Meyer, and U. Kaiser, "Combining high-resolution TEM on graphene with in-situ Hall measurements", poster at *Graphene Week*, Chemnitz, Germany, June 2013.

[35] S. Bauer, B. Neuschl, I. Tischer, M. Frey, M. Hocker, R.A.R. Leute, S.S.U. Rahman, M. Klein, F. Scholz, and K. Thonke, "Microphotoluminescence studies on the effect of V-pits and the surface orientation on the indium incorporation within InGaN quantum wells on free standing polar GaN", poster at *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.

[36] S. Bauer, S. Lazarev, T. Meisch, M. Bauer, M. Barchuk, I. Tischer, T. Baumbach, V. Holy, and F. Scholz, "3D reciprocal space mapping of diffuse scattering for the study of stacking faults in semi-polar GaN layers grown from sidewalls of r-patterned sapphire substrate", poster at *15th European Workshop on Metalorganic Vapour Phase Epitaxy, EWMOVPE XV*, Aachen, Germany, June 2013.

[37] E.R. Buss, U. Rossow, H. Bremers, T. Meisch, F. Scholz, and A. Hangleiter, "Growth and characterization of $Al_{1-x}In_xN$ on different non-, and semipolar GaN surface orientations", poster at *15th European Workshop on Metalorganic Vapour Phase Epitaxy, EWMOVPE XV*, Aachen, Germany, June 2013.

[38] E.R. Buss, U. Rossow, H. Bremers, T. Meisch, F. Scholz, and A. Hangleiter, "$Al_{1-x}In_xN$ on non- and semipolar GaN", *10th International Conference on Nitride Semiconductors, ICNS*, Washington, D.C., USA, Aug. 2013.

[39] Y. Han, M. Caliebe, T. Meisch, M. Pristovsek, M. Kappers, F. Scholz, and C. Humphreys, "Structural characterisation of semi-polar GaN templates grown on prestructures r-plane sapphire substrates", poster at *15th European Workshop on Metalorganic Vapour Phase Epitaxy, EWMOVPE XV*, Aachen, Germany, June 2013.

[40] C. Hein, A. Kraus, H. Bremers, U. Rossow, K. Forghani, F. Scholz, and A. Hangleiter, "MBE growth and characterization of AlN and $Al_xGa_{1-x}N$ with various x", *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.

[41] M. Hocker, I. Tischer, K. Thonke, J. Wang, R.A.R. Leute, F. Scholz, J. Biskupek, W. van Mierlo, and U. Kaiser, "Enhanced stacking fault induced indium diffusion on semipolar gallium nitride based ridges", *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.

[42] M. Lohr, R. Schregle, I. Pietzonka, M. Strassburg, R.A.R. Leute, F. Scholz, K. Müller, A. Rosenauer, and J. Zweck, "Quantification of internal electric fields in InGaN/GaN quantum wells by differential phase contrast microscopy", poster at *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.

[43] S. Metzner, F. Bertram, T. Hempel, T. Meisch, S. Schwaiger, F. Scholz, and J. Christen, "Correlation of microscopic optical properties and defect structures of semipolar GaN on pre-patterned sapphire substrates by cathodoluminescence", *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.

[44] A. Molitor, P. Debernardi, S. Hartmann, R. Michalzik, and W. Elsäßer, "Spatially resolved Stokes parameters of small-area vertical-cavity surface-emitting lasers", *European Semiconductor Laser Workshop*, Bristol, United Kingdom, Sept. 2013.

[45] N. Passilly, R. Boudot, R. Chutani, C. Gorecki, A. Al-Samaneh, D. Wahl, and R. Michalzik, "Developments of miniature atomic clocks based on coherent population trapping, VCSELs and MEMS: technology of fabrication and laser source requirements", *2nd European Workshop on VeCSELs*, Montpellier, France, Oct. 2013.

[46] L. Schade, T. Wernicke, K. Forghani, J. Rass, S. Ploch, L. Kirste, M. Weyers, M. Kneissl, F. Scholz, and U. Schwarz, "Defects of polar, semipolar and nonpolar (In)GaN – a comparison", *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.

[47] I. Tischer, M. Hocker, M. Frey, R.A.R. Leute, F. Scholz, W. van Mierlo, J. Biskupek, U. Kaiser, and K. Thonke, "Investigation of defect related luminescence features in semipolar AlGaN layers on GaN", poster at *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.

[48] K. Thonke, I. Tischer, M. Hocker, M. Frey, and F. Scholz, "Identification of defects in semipolar GaN and (Al,Ga,In) by cathodoluminescence spectroscopy" (invited), *DPG Spring Meeting*, Regensburg, Germany, Mar. 2013.