

## Talks and Conference Contributions

- [1] S. Bader, P. Gerlach, and R. Michalzik, “Parallel-driven VCSELs with optically controlled current confinement”, *European VCSEL Day 2017*, Cardiff, UK, June 2017.
- [2] S. Bader, P. Gerlach, and R. Michalzik, “Optically controlled current confinement in parallel-driven VCSELs”, *Conf. on Lasers and Electro-Optics Europe, CLEO/Europe 2017*, Munich, Germany, June 2017.
- [3] M. Daubenschütz and R. Michalzik, “Efficient experimental analysis of internal temperatures in VCSELs”, *Conf. on Lasers and Electro-Optics Europe, CLEO/Europe 2017*, Munich, Germany, June 2017.
- [4] K.J. Ebeling and R. Michalzik, “VCSEL technology for imaging and sensor systems applications”, *22nd Microoptics Conf., MOC 2017*, plenary paper PL-4, Tokyo, Japan, Nov. 2017.
- [5] R. Michalzik, “Two odd VCSEL research topics: birefringence tuning and photo-transistor integration”, *Schottky Seminar*, Walter Schottky Institut, Technische Universität München, Munich, Germany, July 2017.
- [6] T. Pusch, M. Lindemann, N.C. Gerhardt, M.R. Hofmann, and R. Michalzik, “Birefringence tuning in vertical-cavity surface-emitting lasers based on asymmetric heating”, *European VCSEL Day 2017*, Cardiff, UK, June 2017.
- [7] T. Pusch, E. La Tona, M. Lindemann, N.C. Gerhardt, M.R. Hofmann, and R. Michalzik, “Thermally induced birefringence tuning of 37 GHz in VCSELs”, *Conf. on Lasers and Electro-Optics Europe, CLEO/Europe 2017*, Munich, Germany, June 2017.
- [8] O. Rettig, J.-P. Scholz, N. Steiger, S. Bauer, T. Hubacek, Y. Li, H. Qi, J. Biskupek, U. Kaiser, K. Thonke, and F. Scholz, “Investigation of boron containing AlBN and AlBGaN layers grown by MOVPE”, poster at *12th Int. Conf. on Nitride Semiconductors, ICNS 2017*, Strassbourg, France, July 2017.
- [9] O. Rettig, “Epitaxy of boron containing III-nitrides and their applications”, *Heimbach Workshop XXXI*, Chemnitz, Germany, Sept. 2017.
- [10] O. Rettig, J.-P. Scholz, N. Steiger, S. Bauer, T. Hubacek, M. Zikova, Y. Li, H. Qi, J. Biskupek, U. Kaiser, K. Thonke, and F. Scholz, “Investigation of the growth process of boron containing AlN thin films”, poster at *17th European Workshop on Metalorganic Vapour Phase Epitaxy, EWMOVPE XVII*, Grenoble, France, June 2017.
- [11] O. Rettig, J.-P. Scholz, N. Steiger, S. Bauer, T. Hubacek, M. Zikova, Y. Li, H. Qi, J. Biskupek, U. Kaiser, K. Thonke, and F. Scholz, “Investigation of phase separation and 3D-growth of boron containing AlGaN-alloys grown by MOVPE”, poster at

- International Workshop on UV Materials and Devices 2017, IWUMD 2017*, Fukuoka, Japan, Nov. 2017.
- [12] M.F. Schneidereit, D. Heinz, F. Scholz, S. Chakraborty, N. Naskar, T. Weil, F. Huber, B. Hörbrand, and K. Thonke, “Functionalization of (In)GaN quantum well structures for selective optical (bio) chemical sensing”, *12th Int. Conf. on Nitride Semiconductors, ICNS 2017*, Strassbourg, France, July 2017.
- [13] M.F. Schneidereit, “Planar InGaN heterostructures for biochemical sensing”, *PulmoSens Fall Meeting*, Reisenburg, Günzburg, Germany, Oct. 2017.
- [14] F. Scholz, D. Heinz, M.F. Schneidereit, V. Devaki Murugesan, F. Huber, B. Hörbrand, K. Thonke, S. Chakraborty, N. Naskar, and T. Weil, “GaN-based hetero structures for gas and bio sensing” (invited), *German Japanese Spanish Workshop on Frontier Photonic and Electronic Materials and Devices*, Son Servera, Mallorca, Spain, Mar. 2017.
- [15] F. Scholz, O. Rettig, M. Zikova, T. Hubacek, K. Thonke, J.-P. Scholz, N. Steiger, S. Bauer, M. Hocker, U. Kaiser, Y. Li, and H. Qi, “Epitaxie und Charakterisierung von AlBGaN-Heterostrukturen: Möglichkeiten zum Verspannungsmanagement in UV-LEDs?”, *Seminar*, Osram Opto Semiconductors, Regensburg, Germany, Apr. 2017.
- [16] F. Scholz, D. Heinz, M.F. Schneidereit, V. Devaki Murugesan, F. Huber, B. Hörbrand, K. Thonke, S. Chakraborty, N. Naskar, and T. Weil, “GaN-based hetero structures for gas and bio sensing”, *Seminar*, Osram Opto Semiconductors, Regensburg, Germany, Apr. 2017.
- [17] F. Scholz, “GaN and related heterostructures part I: basics” (invited), *Workshop on Physics at Nanoscale*, Devet Skal, Czech Republic, June 2017.
- [18] F. Scholz, “GaN and related heterostructures part II: current research topics and device concepts” (invited), *Workshop on Physics at Nanoscale*, Devet Skal, Czech Republic, June 2017.
- [19] F. Scholz, M.F. Schneidereit, D. Heinz, R. Rath, V. Devaki Murugesan, F. Huber, B. Hörbrand, K. Thonke, S. Chakraborty, N. Naskar, and T. Weil, “GaN-based hetero structures for gas and bio sensing” (invited), *18. Wörlitzer Workshop*, Wörlitz, Germany, June 2017.
- [20] F. Scholz, O. Rettig, M. Zikova, T. Hubacek, K. Thonke, J.-P. Scholz, N. Steiger, S. Bauer, M. Hocker, U. Kaiser, Y. Li, J. Biskupek, and H. Qi, “Investigation of epitaxially grown AlB(Ga)N layers on AlN templates” (invited), *EMRS Fall Meeting*, Boston, USA, Nov. 2017.
- [21] F. Scholz, O. Rettig, M. Zikova, T. Hubacek, K. Thonke, J. Scholz, N. Steiger, S. Bauer, M. Hocker, U. Kaiser, Y. Li, J. Biskupek, and H. Qi, “Investigation of epitaxially grown AlB(Ga)N layers on AlN templates”, *32nd DGKK Workshop Epitaxy of III/V Semiconductors*, Freiburg, Germany, Dec. 2017.

- [22] J. Shahbaz, M.F. Schneidereit, B. Hörbrand, S. Bauer, K. Thonke, and F. Scholz, “Optimising InGaN heterostructures for bio and gas sensors”, poster at *17th European Workshop on Metalorganic Vapour Phase Epitaxy EWMOVPE XVII*, Grenoble, France, June 2017.
- [23] J. Shahbaz, M.F. Schneidereit, D. Heinz, B. Hörbrand, F. Huber, S. Bauer, K. Thonke, and F. Scholz, “Simulation and verification of InGaN heterostructure-based gas and bio sensor design”, poster at *12th Int. Conf. on Nitride Semiconductors, ICNS 2017*, Strassbourg, France, July 2017.
- [24] J. Shahbaz, “InGaN heterostructures for gas sensing”, *PulmoSens Fall Meeting*, Reisingburg, Günzburg, Germany, Oct. 2017.
- [25] J. Shahbaz, Y. Liao, M.F. Schneidereit, and F. Scholz, “InGaN heterostructures as gas sensors”, *32nd DGKK Workshop Epitaxy of III/V Semiconductors*, Freiburg, Germany, Dec. 2017.
- [26] N.C. Gerhardt, M. Lindemann, T. Pusch, R. Michalzik, and M.R. Hofmann, “Ultrafast polarization dynamics with resonance frequencies beyond 100 GHz in birefringent spin-lasers”, poster at *Gordon Research Conference, Spin Dynamics in Nanostructures*, Les Diablerets, Switzerland, July 2017.
- [27] N.C. Gerhardt, M. Lindemann, T. Pusch, R. Michalzik, and M.R. Hofmann, “High-frequency polarization dynamics in spin-lasers: pushing the limits” (invited), *SPIE Optics + Photonics 2017, Spintronics X*, San Diego, CA, USA, Aug. 2017.
- [28] N.C. Gerhardt, M. Lindemann, T. Pusch, R. Michalzik, and M.R. Hofmann, “Ultrafast spin-VCSELs” (invited), *European Semiconductor Laser Workshop*, Lyngby, Denmark, Sept. 2017.
- [29] T. Hubacek, O. Rettig, M. Zikova, J.-P. Scholz, M. Hocker, N. Steiger, K. Thonke, Y. Li, U. Kaiser, and F. Scholz, “Effect of boron incorporation into thin AlGaIn quantum wells grown by MOVPE”, poster at *12th Int. Conf. on Nitride Semiconductors, ICNS 2017*, Strassbourg, France, July 2017.
- [30] M. Lindemann, T. Pusch, R. Michalzik, N.C. Gerhardt, and M.R. Hofmann, “Investigations on polarization oscillation amplitudes in spin-VCSELs”, *SPIE Photonics West 2017, Vertical-Cavity Surface-Emitting Lasers XXI*, San Francisco, CA, USA, Jan./Feb. 2017.
- [31] M. Lindemann, T. Pusch, R. Michalzik, N.C. Gerhardt, and M.R. Hofmann, “Tunable polarization oscillations in resonantly pumped spin-VCSELs”, *Conf. on Lasers and Electro-Optics Europe, CLEO/Europe 2017*, Munich, Germany, June 2017.
- [32] A. Tibaldi, F. Bertazzi, M. Calciati, M. Goano, P. Gerlach, A. Ott, R. Michalzik, and P. Debernardi, “Multiphysical simulation of vertical-cavity surface-emitting lasers”, *European VCSEL Day 2017*, Cardiff, UK, June 2017.