CURRICULUM VITAE

TINO HOFMANN

Assistant Professor of Applied Optics

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■ EDUCATION

2004 **Dr. rer. nat.** in Physics, Faculty of Physics and Geosciences, University Leipzig
Thesis: "Far-infrared spectroscopic ellipsometry on A^{III} B^{V} semiconductor heterostructures"
Theses advisors and reviewers: Prof. Dr. W. Grill (University Leipzig, Germany),
Prof. Dr. M. Schubert, (University of Nebraska-Lincoln, U.S.A.),
Prof. Dr. B. Keimer (Max Planck Institute for Solid State Research, Germany),
Prof. Dr. H. Arwin (University Linköping, Sweden)

2000 **Diploma** in Physics, Faculty of Physics and Geosciences, University Leipzig
Thesis: "Infrared ellipsometry and Raman spectroscopy of III-V semiconductor superlattice structures"
Theses advisors and reviewers: Prof. Dr. B. Rheinländer (University Leipzig, Germany),
Prof. Dr. R. Schwabe (University Leipzig, Germany)

■ PROFESSIONAL APPOINTMENTS

2016 – present **Assistant Professor of Applied Optics** at the Department of Physics and Optical Science, University of North Carolina at Charlotte, U.S.A.,
Chair: Prof. Dr. Glenn Boreman

2016 – present **Adjunct Professor** at the Department of Electrical and Computer Engineering, University of Nebraska-Lincoln, U.S.A.,
Chair: Prof. Dr. J. Hudgins

2015 – present **Visiting Associate Professor** at the Department of Physics, Chemistry, and Biology, Linköping University, SE 581 83 Linköping, Sweden,
Chair: Prof. Dr. Ulf Karlsson

2009 – 2016 **Research Assistant Professor** at the Department of Electrical and Computer Engineering, University of Nebraska-Lincoln, U.S.A.,
Chair: Prof. Dr. J. Hudgins

2006 – 2008 **Post Doctoral Research Assistant** at the Department of Electrical and Computer Engineering, University of Nebraska-Lincoln, Lincoln, U.S.A.,
Chair: Prof. Dr. J. Hudgins; Mentor: Prof. Dr. M. Schubert

2000 – 2005 **Scientific Assistant** at the Faculty of Physics and Geosciences, University Leipzig, Germany,
Chair: Prof. Dr. M. Grundmann; Mentor: Prof. Dr. W. Grill

■ RESEARCH INTERESTS

Semiconductor material properties: long range atomic ordering, strain, composition, interface charge accumulation, optical and electronic properties, phonon properties, ferroelectric coupling phenomena.

Novel optical sensing mechanisms using nanomaterials for ultrahigh performance chromatography. Biosensing using aptamer-based recognition elements, terahertz plasmonics, surface chemistry, nanofluidics, biomimetic interface and material design.

Nanostructured surfaces composed of highly ordered metal and semiconductor nanowires, nanowire heterostructures: syntheses using scalable bottom up growth techniques, glancing angle of incidence deposition. Surface functionalization: atomic layer deposition, self-assembled monolayers.

Instrumentation development for polarization-discriminating spectroscopy, infrared and terahertz ellipsometry, Mueller Matrix polarimetry, imaging ellipsometry, birefringence imaging chromatography, and high-field optical Hall effect.

Spatially confined carrier systems for terahertz frequency devices: charge carrier transport, optical Hall effect, Landau level spectroscopy, epitaxial graphene, III-nitride semiconductor based high electron mobility transistors.

■ AWARDS AND HONORS

2014 Marie Curie Fellow (Fellowship of the Marie Skłodowska-Curie actions research program of the European Commission)
2014 VINNMER Fellow (Fellowship of the Swedish innovation agency VINNOVA)
2014 Appointment to the Graduate Faculty of the University of Nebraska-Lincoln
2011 Appointment to the Graduate Faculty Associates of the University of Nebraska-Lincoln
2010 Paul Drude award, International Conference on Spectroscopic Ellipsometry 5, Albany, NY; given to a young scientist for exceptional contributions to the development and application of spectroscopic ellipsometry
2007 Best poster award, International Conference on Spectroscopic Ellipsometry 4, Stockholm, Sweden;
Best poster award, 54th MidWest Solid State Conference, Lincoln, NE
1999 DAAD (German Academic Exchange Service) Scholarship

■ PROFESSIONAL ACTIVITIES

CONFERENCE ORGANIZATION	• Chair of the "Spectroscopic Ellipsometry" focus topic symposium at the International Conference of the American Vacuum Society (since 2013) • Co-Chair of the "Optical Characterization Of Thin Films, Surfaces and Devices" symposium at the International Conference on Metallurgical Coatings and Thin Films ICMCTF (since 2012) • Member of scientific committee of the symposium "Current Trends in Optical and X-Ray Metrology of Advanced Materials for Nanoscale Devices IV" of the Spring E-MRS 2015
EDITORIAL ACTIVITIES	• Editorial Board Member of "Review of Scientific Instruments" (2011-2013, 3 year term) • Editorial Board Member of "Conference Papers in Materials Science" (2012-2015) • Editorial Board Member of "Journal of Spectroscopy" (since 2014)
AD-HOC REVIEWING	• Physical Review B, Applied Physics Letters, physica status solidi, Thin Solid Films, Journal of Applied Physics, Journal of the Optical Society of America A, Optics Letters, Optics Express, Journal of Vacuum Science and Technology B, Journal of the Electrochemical Society, Crystal Research and Technology, Journal of Crystal Growth and Design, Infrared Physics and Technology, ICMCTF proceedings, Review of Scientific Instruments, ECS Solid State Letters, Applied Surface Science
MEMBERSHIPS (CURRENT)	• Institute of Electrical and Electronics Engineers (IEEE), American Physical Society (APS), Deutsche Physikalische Gesellschaft (DPG), Material Research Society (MRS), and American Vacuum Society (AVS)

■ PUBLICATIONS

94 peer-reviewed, technical publications with over 1300 citations, H-index = 22 (22 papers with at least 22 references, Google-Scholar: https://scholar.google.com/citations?user=--PVdvAAAAAJ&hl=en).
14 books and book chapters. 24 invited presentations and lectures. 9 U.S. patents. 6 pending U.S. patent applications and provisional patents.

94. M. Schubert, P. Kühne, V. Darakchieva, and **T. Hofmann**, "The optical Hall effect - model description: tutorial", J. Opt. Soc. Am. A **33**, 1553 (2016).
93. P. Wilson, A. Zobel, A. Zaitouna, A. Lipatov, E. Schubert, **T. Hofmann**, M. Schubert, R. Lai, and A. Sinitskii, "Solution-Stable Anisotropic Carbon Nanotube/Graphene Hybrids Based on Slanted Columnar Thin Films for Chemical Sensing", RSC Advances **6**, 63235 (2016).
92. M. Schubert, R. Korlacki, S. Knight, **T. Hofmann**, S. Schöche, V. Darakchieva, E. Janzén, B. Monemar, D. Gogova, Q.-T. Thieu, R. Togashi, H. Murakami, Y. Kumagai, K. Goto, A. Kuramata, S. Yamakoshi, M. Higashiwaki, "Anisotropy, phonon modes, and free charge carrier parameters in monoclinic β-gallium oxide single crystals", Phys. Rev. B **93**, 125209 (2016).
91. A. Mock, R. Korlacki, C. Briley, D. Sekora, **T. Hofmann**, P. Wilson, A. Sinitskii, E. Schubert, and M. Schubert, "Anisotropy, band-to-band transitions, phonon modes, and oxidation properties of cobalt-oxide core-shell slanted columnar thin films", Appl. Phys. Lett. **108**, 051905 (2016).

90. N. Armakavicius, J.-T. Chen, **T. Hofmann**, S. Knight, P. Kühne, D. Nilsson, U. Forsberg, E. Janzen, and V. Darakchieva, "Record mobility of two-dimensional electron gas in AlGaN/GaN HEMT structures determined by cavity-enhanced THz optical Hall effect", phys. stat. sol. **13**, 369 (2016).
89. Q. Cui, J. He, M. Z. Bellus, M. Mirzokarimov, **T. Hofmann**, H.-Y. Chiu, M. Antonik, D. He, Y. Wang, and H. Zhao, "Transient Absorption Measurements on Anisotropic Monolayer ReS_2", Small **41**, 5565 (2015).
88. K. B. Rodenhausen, R. S. Davis, D. Sekora, D. Liang, A. Mock, R. Neupane, D. Schmidt, **T. Hofmann**, E. Schubert, and M. Schubert, "The retention of liquid by columnar nanostructured surfaces during quartz crystal microbalance measurements and the effects of adsorption thereon", J. Colloid Interf. Sci. **455**, 226 (2015).
87. S. Knight, S. Schöche, V. Darakchieva, P. Kühne, J.-F. Carlin, N. Grandjean, C.M. Herzinger, M. Schubert, and **T. Hofmann**, "Cavity-enhanced optical Hall effect in two-dimensional free charge carrier gases detected at terahertz frequencies", Opt. Lett. **40**, 2688 (2015); **highlighted in Spotlight on Optics.**
86. P.M. Wilson, A. Lipatov, D. Schmidt, E. Schubert, M.Schubert, A. Sinitskii, and **T. Hofmann**, "Structural and optical properties of cobalt slanted nanopillars conformally coated with few-layer graphene", Appl. Phys. Lett. **106**, 231901 (2015).
85. P.M. Wilson, A. Zobel, **T. Hofmann**, and A. Sinitskii, "Multilayer Graphitic Coatings for Thermal Stabilization of Metallic Nanostructures", ACS Appl. Mater. Interfaces **7**, 2987 (2015).
84. C. Briley, D. Schmidt, **T. Hofmann**, E. Schubert, and M. Schubert, "Anisotropic magneto-optical hysteresis of permalloy slanted columnar thin films determined by vector magneto-optical generalized ellipsometry", Appl. Phys. Lett. **106**, 133104 (2015).
83. P. Kühne, C.M. Herzinger, J.A. Woollam, M. Schubert, and **T. Hofmann**, "An integrated mid-infrared, far-infrared and terahertz optical Hall effect instrument", Rev. Sci. Instrum. **85**, 071301 (2014) **invited review article.**
82. M.−Y. Xie, N. Ben Sedrine, S. Schöche, **T. Hofmann**, M. Schubert, L. Hong, B. Monemar, X. Wang, A. Yoshikawa, K. Wang, T. Araki, Y. Nanishi, and V. Darakchieva, "Effect of Mg doping on the structural and free-charge carrier properties of InN thin films", J. Appl. Phys. **115**, 163504 (2014).
81. P.M. Wilson, G.N. Mbah, T.G. Smith, D. Schmidt, R.Y. Lai, **T. Hofmann**, and A. Sinitskii, "Three-Dimensional Periodic Graphene Nanostructures", J. Mat. Chem. C **2**, 1879 (2014); **highlighted as one of the 30 most downloaded papers of J. Mat. Chem. C in 2014**.
80. S. Schöche, **T. Hofmann**, V. Darakchieva, X. Wang, A. Yoshikawa, K. Wang, T. Araki, Y. Nanishi, and M. Schubert, "Free-charge carrier parameters of n-type, p-type and compensated InN:Mg determined by Infrared Spectroscopic Ellipsometry", Thin Solid Films **571**, 384 (2014).
79. S. Schöche, P. Kühne, **T. Hofmann**, M. Schubert, D. Nilsson, A. Kakanakova-Georgieva, E. Janzén, and V. Darakchieva, "Electron effective mass in $Al_{0.72}Ga_{0.28}N$ alloys determined by mid-infrared optical Hall effect", Appl. Phys. Lett. **103**, 212107 (2013).
78. P. Kühne, V. Darakchieva, J.D. Tedesco, R.L. Myers-Ward, C.R. Eddy Jr., D.K. Gaskill, R. Yakimova and C.M. Herzinger, J.A. Woollam, M. Schubert, and **T. Hofmann**, "Polarization selection rules for inter-Landau level transitions in epitaxial graphene revealed by infrared optical Hall effect", Phys. Rev. Lett. **111**, 077402 (2013).
77. P. Kühne, A. Boosalis, C. M. Herzinger, L.O. Nyakiti, V.D. Wheeler, R.L. Myers-Ward, C.R. Eddy, Jr., D.K. Gaskill, M. Schubert, and **T. Hofmann**, "Reflection-type optical-Hall effect measurement of

Landau-level transitions in epitaxial graphene on silicon carbide", Mat. Res. Soc. Symp. Proc. **1505** (2013).

76. V. Darakchieva, A. Boosalis, A. A. Zakharov, **T. Hofmann**, M. Schubert, T. E. Tiwald, T. Iakimov, R. Vasiliauskas, and R. Yakimova, "Large-area microfocal spectroscopic ellipsometry mapping of thickness and electronic properties of epitaxial graphene on Si- and C-face of 3C-SiC (111)", App. Phys. Lett. **102**, 213116 (2013).
75. A. Boosalis, R. Elmquist, M. Real, N. Nguyen, M. Schubert, and **T. Hofmann**, "A Model Dielectric Function for Graphene from the Infrared to the Ultraviolet", Mat. Res. Soc. Symp. Proc. **1505** (2013).
74. S. Schöche, **T. Hofmann**, V. Darakchieva, N. Ben Sedrine, X. Wang, A. Yoshikawa, and M. Schubert, "Infrared to vacuum-ultraviolet ellipsometry and optical Hall-effect study of free-charge carrier parameters in Mg-doped InN", J. Appl. Phys. **113**, 013502 (2013).
73. S. Schöche, **T. Hofmann**, R. Korlacki, T. E. Tiwald, and M. Schubert, "Infrared dielectric anisotropy and phonon modes of rutile TiO_2", J. Appl. Phys. **113**, 164102 (2013).
72. A. Boosalis, **T. Hofmann**, V. Darakchieva, R. Yakimova, T.E. Tiwald, and M. Schubert, "Spectroscopic Mapping Ellipsometry of Graphene Grown on 3C SiC", Mat. Res. Soc. Symp. Proc. **1407**, AA20-43 (2012).
71. A. Boosalis, **T. Hofmann**, V. Darakchieva, R. Yakimova, and M. Schubert, "Visible to Vacuum Ultraviolet Dielectric Functions of Epitaxial Graphene on 3C and 4H SiC Polytypes Determined by Spectroscopic Ellipsometry", Appl. Phys. Lett. **101**, 011912 (2012).
70. **T. Hofmann**, D. Schmidt, A. Boosalis, P. Kühne, C. Herzinger, J. Woollam, E. Schubert, and M. Schubert, "Metal slanted columnar thin film THz optical sensors", Mat. Res. Soc. Symp. Proc. **1409**, CC13-31 (2012).
69. **T. Hofmann**, P. Kühne, S. Schöche, Jr.-Tai Chen, U. Forsberg, E. Janzen, N. Ben Sedrine, C.M. Herzinger, J.A. Woollam, M. Schubert, and V. Darakchieva, "Temperature dependent effective mass in AlGaN/GaN high electron mobility transistor structures", Appl. Phys. Lett. **101**, 192102 (2012).
68. S. Schöche, **T. Hofmann**, N. B. Sedrine, V. Darakchieva, B. Monemar, X. Wang, A. Yoshikawa, and M. Schubert, "Infrared ellipsometry and near-infrared-to-vacuum-ultraviolet ellipsometry study of free-charge carrier properties in In-polar p-type InN", Mat. Res. Soc. Symp. Proc. **1396**, O07-27 (2012).
67. R. Skomski, Z. Li, R. Zhang, R.D. Kirby, A. Enders, D. Schmidt, **T. Hofmann**, E. Schubert, and D. J. Sellmyer, "Nanomagnetic Skyrmions", J. Appl. Phys. **111**, 07E116 (2012); **selected for publication in Vir. J. Nan. Sci. & Tech. Vol. 25 (10) (2012).**
66. K. Rodenhausen, T. Kasputis, A. Pannier, J. Gerasimov, R. Lai, T. Tiwald, H. Wang, A. Sarkar, **T. Hofmann**, N. Ianno, and M. Schubert, "Combined optical and acoustical method for determination of thickness and porosity of transparent organic layers below the ultra-thin film limit", Rev. Sci. Instrum. **82**, 103111 (2011); **selected for publication in Vir. J. Biol. Phys. Res. Vol. 24 (20) (2011) and Vir. J. Nan. Sci. & Tech. Vol. 23 (5) (2011).**
65. **T. Hofmann**, D. Schmidt, A. Boosalis, P. Kühne, R. Skomski, C.M. Herzinger, J.A. Woollam, M. Schubert, and E. Schubert, "THz dielectric anisotropy of metal slanted columnar thin films", Appl. Phys. Lett. **99**, 081903 (2011).
64. S. Schöche, J. Shi, A. Boosalis, P. Kühne, C. M. Herzinger, J. A. Woollam and W. J. Schaff, L. F. Eastman, M. Schubert, and **T. Hofmann**, "Terahertz optical-Hall effect characterization of two-dimensional electron gas properties in AlGaN/GaN high electron mobility transistor structures", Appl. Phys. Lett. **98**, 092103 (2011).

63. **T. Hofmann**, A. Boosalis, P. Kühne, C. M. Herzinger, J. A. Woollam, D. K. Gaskill, J. L. Tedesco, and M. Schubert, "Hole-channel conductivity in epitaxial graphene determined by terahertz optical-Hall effect and midinfrared ellipsometry", Appl. Phys. Lett. **98**, 041906 (2011); **selected for publication in Vir. J. Nan. Sci. & Tech. Vol. 23 (5) (2011).**
62. A. Boosalis, **T. Hofmann**, J. Sik, and M. Schubert, "Free-charge carrier profiles of iso- and aniso-type Si homojunctions determined by terahertz and mid-infrared ellipsometry", Thin Solid Films **519**, 2604 (2011).
61. **T. Hofmann**, C.M. Herzinger, J.L. Tedesco, D.K. Gaskill, J.A. Woollam, and M. Schubert, "Terahertz ellipsometry and terahertz optical-Hall effect", Thin Solid Films **519**, 2593 (2011).
60. P. Kühne, **T. Hofmann**, C. M. Herzinger, and M. Schubert, "Terahertz frequency optical-Hall effect in multiple valley band materials", Thin Solid Films **519**, 2613 (2011).
59. D. Schmidt, C. Müller, **T. Hofmann**, O. Inganäs, H. Arwin, E. Schubert, and M. Schubert, "Optical properties of hybrid titanium chevron sculptured thin films coated with a semiconducting polymer", Thin Solid Films **519**, 2645 (2011).
58. E. Montgomery, C. Krahmer, K. Streubel, **T. Hofmann**, E. Schubert, and M. Schubert, "Temperature dependent model dielectric function of highly disordered $Ga_{0.52}In_{0.48}P$", Thin Solid Films **519**, 2859 (2011).
57. K. B. Rodenhausen, M. Guericke, A. Sarkar, **T. Hofmann**, N. Ianno, M. Schubert, T. E. Tiwald, M. Solinsky, and M. Wagner, "Micelle-assisted bilayer formation of cetyltrimethylammonium bromide thin films studied with combinatorial spectroscopic ellipsometry and quartz crystal microbalance techniques", Thin Solid Films **519**, 2821 (2011).
56. K. B. Rodenhausen, B. A. Duensing, T. Kasputis, A. K. Pannier, **T. Hofmann**, M. Schubert, T. E. Tiwald, M. Solinsky, and M. Wagner, "In-situ monitoring of alkanethiol self-assembled monolayer chemisorption with combined spectroscopic ellipsometry and quartz crystal microbalance techniques", Thin Solid Films **519**, 2817 (2011).
55. E. Bittrich, K. B. Rodenhausen, K. Eichhorn, **T. Hofmann**, M. Schubert, M. Stamm, and P. Uhlmann, "Protein adsorption on and swelling of polyelectrolyte brushes: a simultaneous ellipsometry-quartz crystal microbalance study", Biointerphases **5**, 159 (2010).
54. V. M. Voora, **T. Hofmann**, M. Brandt, M. Lorenz, M. Grundmann, N. Ashkenov, H. Schmidt, N. Ianno, and M. Schubert, "Interface polarization coupling in piezoelectric-semiconductor ferroelectric heterostructures", Phys. Rev. B **81***,* 195307 (2010).
53. D. Schmidt, **T. Hofmann**, E. Schubert, and M. Schubert, "Magneto-optical Properties of Cobalt Slanted Columnar Thin Films", Appl. Phys. Lett. **96**, 091906 (2010).
52. **T. Hofmann**, C.M. Herzinger, A. Boosalis, T.E. Tiwald, J.A. Woollam, and M. Schubert, "Variable-wavelength frequency-domain THz ellipsometry", Rev. Sci. Instrum. **81**, 023101 (2010).
51. R.B. Billa, **T. Hofmann**, M. Schubert, and B.W. Robertson, "Annealing effects on the optical properties of semiconducting boron carbide", J. Appl. Phys. **106**, 033515 (2009).
50. V. Darakchieva, **T. Hofmann**, M. Schubert, B. E. Sernelius, B. Monemar, P. O. A. Persson, F. Giuliani, E. Alves, H. Lu, and W. J. Schaff, "Free electron behavior in InN: on the role of dislocations and surface electron accumulation", Appl. Phys. Lett. **94**, 022109 (2009).
49. V. Darakchieva, M. Schubert, **T. Hofmann**, B. Monemar, Y. Takagi, and Y. Nanishi, "Electron accumulation at nonpolar and semi-polar surfaces of wurtzite InN from generalized infrared ellipsometry", Appl. Phys. Lett. **95**, 202103 (2009).

48. **T. Hofmann**, C. M. Herzinger, U. Schade, M. Mross, J. A. Woollam, and M. Schubert, "Terahertz Ellipsometry Using Electron-Beam Based Sources", Mat. Res. Soc. Symp. **1108**, A08-04 (2009).
47. **T. Hofmann**, C.M. Herzinger, T.E. Tiwald, J.A. Woollam, and M. Schubert, "Hole diffusion profile in a p-p+ Silicon homojunction determined by terahertz and mid-infrared spectroscopic ellipsometry", Appl. Phys. Lett. **95**, 032102 (2009).
46. **T. Hofmann**, C.M. Herzinger, J.A. Woollam, and M. Schubert, "Materials Characterization using THz Ellipsometry", Mat. Res. Soc. Symp. Proc. **1163E**, 1163-K08-04 (2009).
45. M. F. Saenger, M. Schädel, **T. Hofmann**, J. Hilfiker, J. Sun, T. Tiwald, M. Schubert, and J. A. Woollam, "Infrared ellipsometric characterization of silicon nitride films on textured Si photovoltaic cells", Mat. Res. Soc. Symp. Proc. **1123**, P02-02 (2009).
44. A. Sarkar, T. Viitala, **T. Hofmann**, T.E. Tiwald, J.A. Woollam, A. Kjerstad, B. Laderian, and M. Schubert, "Monitoring Organic Thin Film Growth in Aqueous Solution In-situ with a Combined Quartz Crystal Microbalance and Ellipsometry", Mat. Res. Soc. Symp. **1146E**, 1146-NN09-02 (2009).
43. D. Schmidt, B. Booso, **T. Hofmann**, E. Schubert, A. Sarangen, and M. Schubert, "Monoclinic optical constants, birefringence, and dichroism of slanted titanium nanocolumns determined by generalized ellipsometry", Appl. Phys. Lett. **94**, 011914 (2009).
42. D. Schmidt, **T. Hofmann**, A. C. Kjerstad, M. Schubert, and E. Schubert, "Optical and magnetic properties of Co nanostructure thin films", Mat. Res. Soc. Symp. Proc. **1142**, 1142-JJ09-04 (2009).
41. D. Schmidt, A. C. Kjerstad, **T. Hofmann**, R. Skomski, E. Schubert, and M. Schubert, "Optical, structural, and magnetic properties of cobalt nanostructure thin films", J. Appl. Phys. **105**, 113508 (2009).
40. D. Schmidt, B. Booso, **T. Hofmann**, E. Schubert, A. Sarangan, and M. Schubert, "Generalized ellipsometry for monoclinic absorbing materials: determination of optical constants of Cr columnar thin films", Opt. Lett. **34**, 992 (2009).
39. V. M. Voora, **T. Hofmann**, M. Brandt, M. Lorenz, M. Grundmann, and M. Schubert, "Interface-charge-coupled polarization response of Pt-ZnO-$BaTiO_3$-ZnO-Pt heterostructures: Three-layer model expansion", Mat. Res. Soc. Symp. Proc. **1110**, 1110-C06-14 (2009).
38. V. M. Voora, **T. Hofmann**, M. Brandt, M. Lorenz, M. Grundmann, N. Ashkenov, and M. Schubert, "Resistive hysteresis and interface charge coupling in $BaTiO_3$-ZnO heterostructures", Appl. Phys. Lett. **94**, 142904 (2009).
37. V. M. Voora, **T. Hofmann**, M. Brandt, M. Lorenz, M. Grundmann, N. Ashkenov, and M. Schubert, "Electrical properties of ZnO-$BaTiO_3$-ZnO heterostructures with asymmetric interface charge distribution", Appl. Phys. Lett. **95**, 082902 (2009).
36. V. Darakchieva, **T. Hofmann**, M. Schubert, B.E. Sernelius, F. Giuliani, M.-Y. Xie, P.O.A. Persson, B. Monemar, W.J. Schaff, C.-L. Hsiao, L.-C. Chen, and Y. Nanishi, "Unravelling the free electron behavior in InN", Optoelec. Microelec. Mat. and Devices COMMAND 2008, 90-97 (2008).
35. M. F. Saenger, T. Höing, **T. Hofmann**, and M. Schubert, "Polaron and Phonon properties in tungsten oxide thin films", Phys. Rev. B, **75**, 245205 (2008).
34. R. J. Soukup, N. J. Ianno, J. L. Huguenin-Love, N. T. Lauer, **T. Hofmann**, and Z. Hubička, "Epitaxial Deposition of SiC onto 4H SiC using a Hollow Cathode", ECS Transactions **16**, 201 (2008).
33. V. M. Voora, **T. Hofmann**, A. C. Kjerstad, M. Brandt, M. Lorenz, M. Grundmann, and M. Schubert, "Interface-charge-coupled polarization response model of Pt-$BaTiO_3$-ZnO-Pt heterojunctions: Physical parameters variation", Mater. Res. Soc. Symp. Proc. **1074E**, 1074-I01-11 (2008).

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31. V. Voora, **T. Hofmann**, M. Brandt, M. Lorenz, M. Grundmann, and M. Schubert, "Electrooptic ellipsometry study of piezoelectric $BaTiO_3$-ZnO heterostructures", phys. stat. sol. (c) **5**, 1328 (2008).
30. M. F. Saenger, T. Höing, **T. Hofmann**, and M. Schubert, "Polaron transitions in charge intercalated amorphous tungsten oxide thin films", phys. stat. sol. (a) **205**, 914 (2008).
29. **T. Hofmann**, V. Darakchieva, B. Monemar, H. Lu, W. J. Schaff, and M. Schubert, "Optical Hall-effect in hexagonal InN", J. Electronic Materials **37**, 611 (2008).
28. V. Voora, **T. Hofmann**, M. Brandt, M. Lorenz, M. Grundmann, N. Ashkenov, and M. Schubert, "Interface-charge-coupled polarization response of Pt-ZnO-$BaTiO_3$-Pt heterojunctions: A physical model approach", J. Electronic Materials, **37**, 1029 (2008).
27. **T. Hofmann**, C.M. Herzinger, C. Krahmer, K. Streubel, and M. Schubert, "The optical-Hall effect", phys. stat. sol. (a), **205**, 779 (2008).
26. **T. Hofmann**, C. von Middendorf, V. Gottschalch, and M. Schubert, "Optical Hall effect studies on modulation-doped $Al_{(x)}Ga_{(1-x)}As$:Si/GaAs quantum wells", phys. stat. sol. (c) **5**, 1386 (2008).
25. **T. Hofmann**, M. Schubert, G. Leibiger, and V. Gottschalch, "Electron effective mass and phonon modes in GaAs incorportating boron and indium", Appl. Phys. Lett. **90**, 182110 (2007).
24. **T. Hofmann**, V. Gottschalch, and M. Schubert, "Dielectric anisotropy and phonon modes of ordered indirect-gap $Al_{0.52}In_{0.48}P$ studied by far-infrared ellipsometry", Appl. Phys. Lett. **91**, 121908 (2007).
23. K. C. Agarwal, B. Daniel, **T. Hofmann**, M. Schubert, C. Klingshirn, and M. Hetterich, "Phonon properties and doping of ZnMnSe epilayers grown by molecular beam epitaxy", phys. stat. sol. b **243**, 914 (2006).
22. **T. Hofmann**, U. Schade, K. C. Agarwal, B. Daniel, C. Klingshirn, M. Hetterich, C. M. Herzinger, and M. Schubert, "Conduction-band electron effective mass in $Zn_{0.87}Mn_{0.13}Se$ measured by terahertz and far-infrared magnetooptic ellipsometry", Appl. Phys. Lett. **88**, 042105 (2006).
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■ CONFERENCE CONTRIBUTIONS

More than 240 contributions to national and international conferences. A detailed list of all contributions can be found on-line: http://ellipsometry.unl.edu/people/hofmann/hofmann_con.php.