

ABTEILUNG MATERIALPHYSIK

Veröffentlichungen

2024 | 2023 | 2022 | 2021 | 2020 | 2019 | 2018 | 2017 | 2016 | 2015 | 2014 | 2013 | 2012 | 2011 | 2010 | älter als 2010

() Liste der Publikationen der Abteilung Materialphysik seit 2010. Die meisten Publikationen sind direkt verlinkt. Wenn Sie Interesse an einer unserer Publikationen haben, sie aber nicht erhalten können, sprechen Sie uns bitte direkt an! ()

2024

- ▶ A. Murad, E. Baron, M. Feneberg, M. Baumann, M. Lehmann, and A. Eremin
Polarity in liquid crystals formed self-assembled umbrella-shaped subphthalocyanine mesogens
ACS Applied Materials & Interfaces, accepted (2024).
- ▶ A. Mudzakir, P. Liebing, E. Haak, A. Fischer, L. Hilfert, R. Goldhahn, and F.T. Edelmann
An unusual phosphide addition reaction of 1,3-dimethyl-1,2,3-benzotriazolium iodide
Inorg. Chem. Comm. **161**, 111924 (2024).

2023

- ▶ R. Johnson, P. Liebing, D. P. Musikanth, S. A. Regitz, D. S. Amenta, R. Goldhahn, F. T. Edelmann, and J. W. Gilje
Pyrazolypropanoate Complexes of Palladium(II) Chloride
Z. Anorg. Allg. Chem. **649**, e202300076 (2023).
- ▶ E. Baron, R. Goldhahn, S. Espinoza, M. Zahradik, M. Rebarz, J. Andreasson, M. Deppe, D.J. As, and M. Feneberg
Time-resolved pump-probe spectroscopic ellipsometry of cubic GaN II: Absorption edge shift with gain and temperature effects
J. Appl. Phys. **134**, 075703 (2023).
- ▶ E. Baron, R. Goldhahn, S. Espinoza, M. Zahradik, M. Rebarz, J. Andreasson, M. Deppe, D.J. As, and M. Feneberg
Time-resolved pump-probe spectroscopic ellipsometry of cubic GaN I: Determination of the dielectric function
J. Appl. Phys. **134**, 075702 (2023).
- ▶ N. Harmgarth, P. Liebing, V. Lorenz, F. Engelhardt, L. Hilfert, S. Busse, R. Goldhahn, and F.T. Edelmann
Synthesis and Structural Characterization of p-Carboranylaminidine Derivatives
Molecules. **28**, 3837 (2023).
- ▶ E. Kluth, A F M Anhar Uddin Bhuiyan, L. Meng, J. Bläsing, H. Zhao, A. Strittmatter, R. Goldhahn, and M. Feneberg
Determination of anisotropic optical properties of MOCVD grown m-plane α -(Al_xGa_{1-x})₂O₃ alloys
Japan. J. Appl. Phys. **62**, 051001 (2023).
- ▶ S. Wang, P. Liebing, M. Feneberg, F.M. Sroor, F. Engelhardt, L. Hilfert, S. Busse, E. Kluth, R. Goldhahn, and F.T. Edelmann
Synthesis and Structural Characterization of Divalent Transition Metal Alkynylamidinate Complexes
Eur. J. Inorg. Chem. **26**, e202300027 (2023).
- ▶ E. Kluth, M.W. Fay, C. Parmenter, J.W. Roberts, E. Smith, C.T. Stoppiello, F.C.-P. Massabuau, R. Goldhahn, and M. Feneberg
Redshift and amplitude increase in the dielectric function of corundum-like α -(Tl_xGa_{1-x})₂O₃
Appl. Phys. Lett. **122**, 092101 (2023).
- ▶ K. Egbo, E. Luna, J. Lähnemann, G. Hoffmann, A. Trampert, J. Grümbel, E. Kluth, M. Feneberg, R. Goldhahn, and O. Bierwagen
Epitaxial synthesis of unintentionally-doped p-type SnO (001) via suboxide molecular beam epitaxy
J. Appl. Phys. **133**, 045701 (2023).
- ▶ S. Wang, P. Liebing, F. Engelhardt, L. Hilfert, S. Busse, R. Goldhahn, and F. T. Edelmann
Synthesis and Complexation Study of New Aminoalkynylamidinate Ligands

2022

- ▶ R. Cuscó, T. Yamaguchi, E. Kluth, R. Goldhahn, and M. Feneberg
Optical properties of corundum-structured In_2O_3
Appl. Phys. Lett. **121**, 062106 (2022).
- ▶ E. Baron, R. Goldhahn, S. Espinoza, M. Zahradnik, M. Rebarz, J. Andreasson, M. Deppe, D.J. As, and M. Feneberg
Femtosecond pump-probe absorption edge spectroscopy of cubic GaN
cond-mat arxiv:2206.02223 (2022).
- ▶ L.E. Ratcliff, T. Oshima, F. Nippert, B.M. Janzen, E. Kluth, R. Goldhahn, M. Feneberg, P. Mazzolini, O. Bierwagen, C. Wouters, M. Nofal, M. Albrecht, J.E.N. Swallow, L.A.H. Jones, P.K. Thakur, T.-L. Lee, C. Kalha, C. Schlueter, T.D. Veal, J.B. Varley, M.R. Wagner, and A. Regoutz
Tackling Disorder in $\gamma\text{-Ga}_2\text{O}_3$
Adv. Mater. **34**, 2204217 (2022).
- ▶ V. Lorenz, P. Lebing, M. Müller, L. Hilfert, M. Feneberg, E. Kluth, M. Kühling, M.R. Buchner, R. Goldhahn, and F.T. Edelmann
Small Compound - Big Colors: Synthesis and Structural Investigation of Brightly Colored Alkaline Earth Metal 1,3-Dimethylviolurates
Dalton Trans. **51**, 7975 (2022).
- ▶ S. Wu, M. Guttman, N. Lobo-Ploch, F. Gindele, N. Susilo, A. Knauer, T. Kolbe, J. Raß, S. Hagedorn, H.K. Cho, K. Hilbrich, M. Feneberg, R. Goldhahn, S. Einfeldt, T. Wernicke, M. Weyers, and M. Kneissl
Enhanced light extraction efficiency of UV LEDs by encapsulation with UV-transparent silicone resin
Semicond. Sci. Technol. **37**, 065019 (2022).
- ▶ T. Henksmeier, J.F. Schulz, E. Kluth, M. Feneberg, R. Goldhahn, A.M. Sanchez, M. Voigt, G. Grundmeier, and D. Reuter
Remote Epitaxy of $\text{In}_x\text{Ga}_{1-x}\text{As}(001)$ on Graphene Covered $\text{GaAs}(001)$ Substrates
J. Cryst. Growth **593**, 126756 (2022).
- ▶ A. Papadogianni, C. Wouters, R. Schewski, J. Feldl, J. Lähnemann, T. Nagata, E. Kluth, M. Feneberg, R. Goldhahn, M. Ramsteiner, M. Albrecht, and O. Bierwagen
Molecular beam epitaxy of single-crystalline bixbyite ($\text{In}_{1-x}\text{Ga}_x$) $_2\text{O}_3$ films ($x \leq 0.18$): Structural properties and consequences of compositional inhomogeneity
Phys. Rev. Mater. **6**, 033604 (2022).
- ▶ V. Gorelov, L. Reining, M. Feneberg, R. Goldhahn, A. Schleife, W.R.L. Lambrecht, and M. Gatti
Delocalization of dark and bright excitons in flat-band materials and the optical properties of $\frac{1}{2}\text{O}_5$
npj Comput. Mater. **8**, 94 (2022). (<https://doi.org/10.1038/s41524-022-00754-2>)
- ▶ S. Wang, P. Liebing, F. Engelhart, L. Hilfert, S. Busse, R. Goldhahn, and F.T. Edelmann
Synthesis and Structural Characterization of a Series of Homoleptic First-Row Transition Metal Tris(alkynyl-amidates)
Z. Anorg. Angew. Chemie **648**, e202200009 (2022). (<https://doi.org/10.1002/zaac.202200009>)
- ▶ J. Grümbel, R. Goldhahn, D.-W. Jeon, and M. Feneberg
Anharmonicity of lattice vibrations in thin film $\alpha\text{-Ga}_2\text{O}_3$ investigated by temperature dependent Raman spectroscopy
Appl. Phys. Lett. **120**, 022104 (2022) (<https://doi.org/10.1063/5.0074260>)

2021

- ▶ M. Wacker, J. Riedel, H. Walles, M. Scherner, G. Awald, S. Varghese, S. Schürlein, B. Garke, P. Veluswamy, J. Wippermann, and J. Hülsmann
Comparative Evaluation on Impacts of Fibronectin, Heparin–Chitosan, and Albumin Coating of Bacterial Nanocellulose Small-Diameter Vascular Grafts on Endothelialization In Vitro
Nanomaterials **11**, 1952 (2021) (<https://doi.org/10.3390/nano11081952>)
- ▶ J. Feldl, M. Feneberg, A. Papadogianni, J. Lähnemann, T. Nagata, O. Bierwagen, R. Goldhahn, and M. Ramsteiner
Band gap widening and phonon behavior of cubic single-crystalline (In,Ga) $_2\text{O}_3$ alloy films
Appl. Phys. Lett. **119**, 042101 (2021). (<https://doi.org/10.1063/5.0056532>)
- ▶ F. Meier, M. Protte, E. Baron, M. Feneberg, R. Goldhahn, D. Reuter, and D.J. As

Selective Area Growth of cubic Gallium Nitride on Silicon (001) and 3C-Silicon Carbide (001)

AIP Advances **115**, 075013 (2021). (<https://doi.org/10.1063/5.0053865>)

- ▶ M. Feneberg, F. Romero, R. Goldhahn, T. Wernicke, C. Reich, J. Stellmach, F. Mehnke, A. Knauer, M. Weyers, and M. Kneissl

Origin of defect luminescence in ultraviolet emitting AlGaN diode structures

Appl. Phys. Lett. **118**, 202101 (2021). (<https://doi.org/10.1063/5.0047021>)

- ▶ M. Hähslér, H. Nadası, M. Feneberg, S. Marino, F. Giesselmann, S. Behrens, and A. Eremin

Magnetic Tilting in Nematic Liquid Crystals driven by Self-Assembling

Advanced Functional Materials **2021**, 2101847 (2021). (<https://doi.org/10.1002/adfm.202101847>)

- ▶ L. Artús, M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>), C. Attacalite, J.H. Edgar, J. Li, R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>), R. Cuscó

Ellipsometry Study of Hexagonal Boron Nitride using Synchrotron Radiation: Transparency Window in the Far-UVC

Advanced Photonics Research **2**, 2000101 (2021). (<https://doi.org/10.1002/adpr.202000101>)

- ▶ E. Baron, M. Feneberg, R. Goldhahn, M. Deppe, F. Tacke, and D.J. As

Optical evidence of many-body effects in the ternary zincblende $A_xGa_{1-x}N$ alloy system

J. Phys. D: Appl. Phys. **54**, 025101 (2021). (<https://doi.org/10.1088/1361-6463/abb97a>)

2020

- ▶ R. Duraisamy, P. Liebing, N. Harmgarth, L. Hilfert, M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>), R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>), V. Lorenz, F. Engelhardt, and F.T. Edelmann

Rubidium and Cesium Enediamide Complexes Derived from Bulky 1,4-Diazadienes

ACS Omega **5**, 19061 (2020). (<http://dx.doi.org/10.1021/acsomega.0c02414>)

- ▶ E. Kluth (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Kluth.html>), M. Wieneke, J. Bläsing, H. Witte, K. Lange (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Studenten/Lange.html>), A. Dadgar, R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>), and M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>)

The impurity size-effect and phonon deformation potentials in wurtzite GaN

Semicond. Sci. Technol. **35**(09), 095033 (2020). (<https://doi.org/10.1088/1361-6641/ab9fab>)

- ▶ P. Ning (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Ning.html>), J. Grümbel (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Gr%C3%BCmbel.html>), J. Bläsing, R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>), D.-W. Jeon, and M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>)

Lattice Vibrations and Optical Properties of α - Ga_2O_3 Films Grown by Halide Vapor Phase Epitaxy

Semicond. Sci. Technol. **35**(09), 095001 (2020). (<https://doi.org/10.1088/1361-6641/ab97f5>)

- ▶ S. Freytag (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Freytag.html>), M. Winkler (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Winkler.html>), R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>), T. Wernicke, M. Rychetsky, I.L. Koslow, M. Kneissl, D.V. Dinh, B. Corbett, P.J. Parbrook, and M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>)

Polarization fields in semipolar (20-2-1) and (20-21) InGaN light emitting diodes

Appl. Phys. Lett. **116**, 062106 (2020). (<https://doi.org/10.1063/1.5134952>)

- ▶ E. Baron (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Baron.html>), R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>), M. Deppe, D.J. As, and M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>)

Photoluminescence line shape analysis of highly n-type doped zincblende GaN

Phys. Status Solidi B **257**, 1900522 (2020) (<https://dx.doi.org/10.1002/pssb.201900522>) .

- ▶ Y. Li, J. Liu, N. Xiao, L. Yu, J. Zhang, P. Ning, Z. Zhang, and P. Niu

Electrical Transport Properties of Gallium Phosphide under High Pressure

Phys. Status Solidi B **257**, 1900470 (2020).

2019

- ▶ P. Liebing, M. Kühling, C. Swanson, M. Feneberg, L. Hilfert, R. Goldhahn, T. Chivers, and F.T. Edelmann

Catenated and Spirocyclic Polychalcogenides from Potassium Carbonate and Elemental Chalcogens

Chem. Commun. **55**, 14965 (2019). (<https://dx.doi.org/10.1039/C9CC08347B>)

- ▶ E. Baron, R. Goldhahn, M. Deppe, D.J. As, and M. Feneberg

Influence of the free-electron concentration on the optical properties of zincblende GaN up to 10^{20}cm^{-3}

Phys. Rev. Mater. **3**, 104603 (2019). (<https://doi.org/10.1103/PhysRevMaterials.3.104603>)

- ▶ M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>) , J. Bläsing, T. Sekiyama, K. Ota, K. Akaiwa, K. Ichino, and R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>)
Anisotropic phonon properties and effective electron mass in alpha-Ga₂O₃
Editor's Pick, Appl. Phys. Lett. **114**, 142102 (2019). (<https://aip.scitation.org/doi/10.1063/1.5086731>)
- ▶ P. Ning (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Ning.html>) , D. Wang, Y. Li, and P. Niu
Ultrasonic mist chemical vapor deposition and dielectric properties of cubic pyrochlore bismuth magnesium niobate thin films
Appl. Phys. Express **12**, 045501 (2019) (<https://doi.org/10.7567/1882-0786/ab0759>)
- ▶ M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>) , C. Lidig (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Studenten/Lidig.html>) , M.E. White, M.Y. Tsai, J.S. Speck, O. Bierwagen, Z. Galazka, and R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>)
Anisotropic optical properties of highly doped rutile SnO₂: Valence band contributions to the Burstein-Moss shift
Editor's Pick, APL Materials **7**, 022508 (2019) (<https://doi.org/10.1063/1.5054351>)

2018

- ▶ M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>) , M. Winkler (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Winkler.html>) , K. Lange (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Studenten/Lange.html>) , M. Wieneke, H. Witte, A. Dadgar, and R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>)
Valence band tomography of wurtzite GaN by spectroscopic ellipsometry
Appl. Phys. Express **11**, 101001 (2018) (<https://doi.org/10.7567/APEX.11.101001>)
- ▶ M. Kracht, A. Karg, M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>) , J. Bläsing, J. Schörmann, R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>) , and M. Eickhoff
Anisotropic Optical Properties of Metastable (01-12) alpha-Ga₂O₃ Grown by Plasma-Assisted Molecular Beam Epitaxy
Phys. Rev. Appl., **10**, 024047 (2018) (<https://doi.org/10.1103/PhysRevApplied.10.024047>)
- ▶ M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>) , J. Nixdorf (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Studenten/Nixdorf.html>) , M.D. Neumann, N. Esser, L. Artus, R. Cusco, T. Yamaguchi, and R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>)
Ordinary dielectric function of corundumlike α-Ga₂O₃ from 40 meV up to 20 eV
Phys. Rev. Mater. **2**, 044601 (2018)
(<https://link.aps.org/doi/10.1103/PhysRevMaterials.2.044601>)
- ▶ A. Schleife, M.D. Neumann, N. Esser, Z. Galazka, A. Gottwald, J. Nixdorf (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Studenten/Nixdorf.html>) , R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>) , and M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>)
Optical properties of In₂O₃ from experiment and first principles theory: influence of lattice screening
New J. Phys. **20**, 053016 (2018)
(<https://doi.org/10.1088/1367-2630/aabeb0>)
- ▶ M. Budde, C. Tschammer, P. Franz, J. Feldl, M. Ramsteiner, R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>) , M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>) , N. Barsan, A. Oprea, and O. Bierwagen
Structural, optical, and electrical properties of unintentionally doped NiO layers grown on MgO by plasma-assisted molecular beam epitaxy
J. Appl. Phys. **123**, 195301 (2018)
(<https://doi.org/10.1063/1.5026738>)
- ▶ M. Šilinskas, B. Kalkofen, R. Balasubramanian, A. Batmanov, E. P. Burte, N. Harmgarth, F. Zörner, F. T. Edelmann, B. Garke (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Alumni/Garke.html>) , and M. Lisker
Plasma-assisted atomic layer deposition of germanium antimony tellurium compounds
J. Vac. Sci. Technol. **A36**, 021510 (2018) (<https://doi.org/10.1116/1.5003463>)

2017

- ▶ T. Wunderer, Z. Yang, M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>) , M. Batres, M. Teepe, and N. Johnson
Structural and optical characterization of AlGaIn multiple quantum wells grown on semipolar (20-21) bulk AlN substrate

Appl. Phys. Lett. **111**, 111101 (2017)

(<http://dx.doi.org/10.1063/1.4985156>)

- ▶ A. Segura, L. Artús, R. Cuscó, R. Goldhahn (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Goldhahn.html>), and M. Feneberg (<https://www.amp.ovgu.de/amp/de/Mitarbeiter/Feneberg.html>)
Band gap of corundumlike α -Ga₂O₃ determined by absorption and ellipsometry
Phys. Rev. Mater. **1**, 024604 (2017) (<http://journals.aps.org/prmaterials/abstract/10.1103/PhysRevMaterials.1.024604>)

2016

- ▶ A. Minj, M.F. Romero, Y. Wang, Ö. Tuna, M. Feneberg, R. Goldhahn, G. Schmerber, P. Ruterana, C. Giesen, and M. Heuken
Stimulated emission via electron-hole plasma recombination in fully strained single InGaN/GaN heterostructures
Appl. Phys. Lett. **109**, 221106 (2016)
- ▶ P. Streitenberger, D. Zöllner
Enveloppen-Methode zur Auswertung von Größenverteilungen bei Vergrößerungsprozessen
In: *Fortschritte in der Metallographie*, Praktische Metallographie Sonderband **50**, 235-240 (2016)
- ▶ D. Zöllner
Treating grain growth in thin films in three dimensions: A simulation study
Computational Materials Science **125**, 51-60 (2016)
- ▶ F. Tabataba-Vakili, T. Wunderer, M. Kneissl, Z. Yang, M. Teepe, M. Batres, M. Feneberg, B. Vancil, and N.M. Johnson
Dominance of radiative recombination from electron-beam-pumped Deep-UV AlGaIn multi-quantum-well heterostructure:
Appl. Phys. Lett. **109**, 181105 (2016)
- ▶ D. Zöllner and P. Streitenberger
Triple junction energy and mobility controlled microstructural evolution in 2D and 3D polycrystals
Proceedings of the 6th International Conference on Recrystallization and Grain Growth, Eds. E.A. Holm et al., Wiley-Verlag, ISBN: 978-1-119-32879-7, (2016), p. 3-8
- ▶ P. Streitenberger and D. Zöllner
Self-similar Coarsening and the Envelope Theorem
Proceedings of the 6th International Conference on Recrystallization and Grain Growth, Eds. E.A. Holm et al., Wiley-Verlag, ISBN: 978-1-119-32879-7, (2016), p. 23-28
- ▶ D.O. Demchenko, N. Izyumskaya, M. Feneberg, V. Avrutin, Ü. Özgür, R. Goldhahn, and H. Morkoç
Optical properties of the organic-inorganic hybrid perovskite CH₃NH₃PbI₃: Theory and experiment
Phys. Rev. B **94**, 075206 (2016)
- ▶ S. Freytag, M. Feneberg, C. Berger, J. Bläsing, A. Dadgar, G. Callsen, F. Nippert, A. Hoffmann, P. Bokov, and R. Goldhahn
Unintentional indium incorporation into barriers of InGaIn/GaN multiple quantum wells studied by photoreflectance and photoluminescence excitation spectroscopy
J. Appl. Phys. **120**, 015703 (2016)
- ▶ D. Zöllner
Grain microstructural evolution in 2D and 3D polycrystals under triple junction energy and mobility control
Computational Materials Science **118**, 325-337 (2016)
- ▶ M.D. Neumann, N. Esser, J.-M. Chauveau, R. Goldhahn, and M. Feneberg
Inversion of absorption anisotropy and bowing of crystal field splitting in wurtzite MgZnO
Appl. Phys. Lett. **108**, 221105 (2016)
- ▶ Y. Xie, M. Madel, M. Feneberg, B. Neuschl, W. Jie, X. Ma, and K. Thonke
Oxygen vacancies induced DX center and persistent photoconductivity properties of high quality ZnO nanorods
Mater. Sci. Express **3**, 045011 (2016)
- ▶ P. Streitenberger, D. Zöllner
Coarsening kinetics and the envelope theorem
Acta Materialia **111**, 210-219 (2016)
- ▶ M. Feneberg, J. Nixdorf, C. Lidig, R. Goldhahn, Z. Galazka, O. Bierwagen, and J.S. Speck
Many-electron effects on the dielectric function of cubic In₂O₃: Effective electron mass, band nonparabolicity, band gap renormalization, and Burstein-Moss shift
Phys. Rev. B **93**, 045203 (2016)
- ▶ D. Zöllner, P. Streitenberger, P.R. Rios
Shedding some light on the early grain growth regime: About the effect of the initial microstructure on normal grain growth
Computational Materials Science **113**, 11-20 (2016)

2015

- ▶ B. Neuschl, M.L. Gödecke, K. Thonke, F. Lipski, M. Klein, F. Scholz, and M. Feneberg
Zeeman spectroscopy of the internal transition ⁴T₁ to ⁶A₁ of Fe³⁺ ions in wurtzite GaN
J. Appl. Phys. **118**, 215705 (2015)
- ▶ E. Specht
A precise algorithm to detect voids in polydisperse circle packings
Proc. R. Soc. A **471**, 20150421 (2015)
- ▶ C. Reich, M. Guttmann, M. Feneberg, T. Wernicke, F. Mehnke, C. Kuhn, J. Rass, M. Lapeyrade, S. Einfeldt, A. Knauer, ¹

- Kueller, M. Weyers, and M. Kneissl
Strongly TE-polarized Emission from Deep UV AlGaIn Quantum Well LEDs
Appl. Phys. Lett. **107**, 142101 (2015)
- ▶ C. Tessarek, R. Goldhahn, G. Sarau, M. Heilmann, S. Christiansen
Carrier-induced refractive index change observed by a whispering gallery mode shift in GaN microrods
New J. Phys. **17**(08), 083047/1-8 (2015)
 - ▶ D. Zöllner, P. Streitenberger
Studying the influence of triple junction energy and mobility on annealing processes
IOP Conference Series: Materials Science and Engineering **89**, 012061 (2015)
 - ▶ P. Streitenberger, D. Zöllner
von Neumann-Mullins-type evolution equations for triple and quadruple junction controlled grain growth
Scripta Materialia **109**, 52-55 (2015)
 - ▶ P. Yu. Bokov, T. Brazzini, M.F. Romero, F. Calle, M. Feneberg, and R. Goldhahn
Electroreflectance characterization of AlInGaIn/GaN high-electron mobility heterostructures
Semicond. Sci. Technol. **30**, 085014 (2015)
 - ▶ M. Feneberg, N.T. Son, and A. Kakanakova-Georgieva
Exciton luminescence in AlN triggered by hydrogen and thermal annealing
Appl. Phys. Lett. **106**, 242101 (2015)
 - ▶ D. Zöllner and P. Streitenberger
Serial sectioning of grain microstructures under junction control: An old problem in a new guise
IOP Conference Series: Materials Science and Engineering **82**, 012080 (2015)
 - ▶ D. Zöllner and P. Streitenberger
Self-similar grain growth in nanocrystalline two-dimensional polycrystals and thin films
TMS2015 Annual Meeting Supplemental Proceedings, Wiley, ISBN: 978-1-119-08241-5, pp. 269278 (2015)
 - ▶ E. Gridneva, E. Richter, M. Feneberg, M. Weyers, R. Goldhahn, and G. Tränkle
Effect of carrier gas in hydride vapor phase epitaxy on the optical and structural properties of GaN
Phys. Status Solidi B **252**, 1180 (2015)
 - ▶ T. Wecker, F. Hörich, M. Feneberg, R. Goldhahn, D. Reuter, and D.J. As
Structural and optical properties of MBE grown asymmetric cubic GaN/Al_xGa_{1-x}N double quantum wells
Phys. Status Solidi B **252**, 873 (2015)
 - ▶ M. Feneberg, M. Winkler, J. Klamser, J. Stellmach, M. Frentrup, S. Ploch, F. Mehnke, T. Wernicke, M. Kneissl, and R. Goldhahn
Anisotropic optical properties of semipolar AlGaIn layers grown on m-plane sapphire
Appl. Phys. Lett. **106**, 182102 (2015)
 - ▶ B. Kalkofen, A.A. Amusan, M.S.K. Bukhari, B. Garke, M. Lisker, H. Gargouri, and E.P. Burte
Use of B₂O₃ films grown by plasma-assisted atomic layer deposition for shallow boron doping in silicon
J. Vacuum Sci. Techn. A **33**, 031512 (2015)
 - ▶ R. Goldhahn, K. Lange, and M. Feneberg
Optical properties and band structure of highly doped gallium nitride
Proc. SPIE **9363**, 93630G (2015)
 - ▶ M. Schäfer, M. Günther, C. Länger, J. Müßener, M. Feneberg, P. Uredat, M.T. Elm, P. Hille, J. Schörmann, J. Teubert, T. Henning, P.J. Klar, and M. Eickhoff
Electrical transport properties of Ge-doped GaN nanowires
Nanotechnology **26**, 135704 (2015)
 - ▶ P. Streitenberger, D. Zöllner
The envelope of size distributions in Ostwald ripening and grain growth
Acta Materialia **88**, 334345 (2015)

2014

- ▶ M. Feneberg, M.F. Romero, B. Neuschl, K. Thonke, M. Röppischer, C. Cobet, N. Esser, M. Bickermann, and R. Goldhahn
Temperature dependent dielectric function and reflectivity spectra of nonpolar wurtzite AlN
Thin Solid Films **571**, 502505 (2014)
- ▶ P. Streitenberger
Sadi Carnot in Magdeburg und die Begründung der Thermodynamik
Monumenta Guericiana (189), Heft 23/24, 147160, Magdeburg (2014)
- ▶ H. Ravash, E. Specht, J. Vleugels, N. Moelans
3D phase-field simulation and characterization of microstructure evolution during Liquid Phase Sintering
Adv. Sci. Tech. **87**, 132138 (2014)
- ▶ M. Feneberg, S. Osterburg, M.F. Romero, B. Garke, R. Goldhahn, M.D. Neumann, N. Esser, J. Yan, J. Zeng, J. Wang, and J. Li
Optical properties of magnesium doped AlGaIn (0.61 < x < 0.733)
J. Appl. Phys. **116**, 143103 (2014)
- ▶ B. Neuschl, J. Helbing, M. Knab, H. Lauer, M. Madel, K. Thonke, T. Meisch, K. Forghani, F. Scholz, and M. Feneberg
Composition dependent valence band order in c-oriented wurtzite AlGaIn layers
J. Appl. Phys. **116**, 113506 (2014)
- ▶ M. Feneberg, S. Osterburg, K. Lange, C. Lidig, B. Garke, R. Goldhahn, E. Richter, C. Netzel, M.D. Neumann, N. Esser, T. Fritze, H. Witte, J. Bläsing, A. Dadgar, and A. Krost

- Band gap renormalization and Burstein-Moss effect in silicon- and germanium-doped wurtzite GaN up to 10^{20} cm^{-3}
 Phys. Rev. B **90**, 075203 (2014)
- ▶ P. Streitenberger, D. Zöllner
 Triple junction controlled grain growth in two-dimensional polycrystals and thin films: Self-similar growth laws and grain size distributions
 Acta Materialia **78**, 114124 (2014)
 - ▶ D. Zöllner
 A phenomenological approach to investigate nanocrystalline grain growth
 Computational Materials Science **92**, 114119 (2014)
 - ▶ D. Zöllner and P.R. Rios
 Investigating the von Neumann-Mullins-relation under triple junction dragging
 Acta Materialia **70**, 290297 (2014)
 - ▶ M. Feneberg, C. Lidig, K. Lange, R. Goldhahn, M.D. Neumann, N. Esser, O. Bierwagen, M.E. White, M.Y. Tsai, and J.S. Speck
 Ordinary and extraordinary dielectric functions of rutile SnO_2 up to 20 eV
 Appl. Phys. Lett. **104**, 231106 (2014)
 - ▶ K. Thonke, I. Tischer, M. Hocker, M. Schirra, K. Fujan, M. Wiedenmann, R. Schneider, M. Frey, and M. Feneberg
 Nanoscale characterisation of semiconductors by cathodoluminescence
 IOP Conference Series: Materials Science and Engineering **55**, 012018 (2014)
 - ▶ D. Zöllner
 A new point of view to determine the simulation temperature for the Potts model simulation of grain growth
 Computational Materials Science **86**, 99-107 (2014)
 - ▶ D. Zöllner
 Topology of grain microstructures in two dimensions: A comparison of grain boundary and triple junction controlled grain growth
 Modelling and Simul. Mater. Sci. Eng. **22**, 025028 (2014)
 - ▶ C. Netzel, J. Stellmach, M. Feneberg, M. Frentrop, M. Winkler, F. Mehnke, T. Wernicke, R. Goldhahn, M. Kneissl, and M. Weyers
 Polarization of photoluminescence emission from semi-polar (1122) AlGaIn layers
 Appl. Phys. Lett. **104**, 051906 (2014)
 - ▶ M. Feneberg, C. Lidig, K. Lange, M.E. White, M.Y. Tsai, J.S. Speck, O. Bierwagen, R. Goldhahn
 Anisotropy of the electron effective mass in rutile SnO_2 determined by infrared ellipsometry
 Phys. Status Solidi A **211**, 82 (2014)

2013

- ▶ M. Feneberg, K. Lange, C. Lidig, M. Wieneke, H. Witte, J. Bläsing, A. Dadgar, A. Krost, R. Goldhahn
 Anisotropy of electron effective masses in highly doped nonpolar GaN
 Appl. Phys. Lett. **103**(23), 232104/1-4 (2013)
- ▶ C. Reich, M. Feneberg, V. Kueller, A. Knauer, T. Wernicke, J. Schlegel, M. Frentrop, R. Goldhahn, M. Weyers, and M. Kneissl
 Excitonic recombination in epitaxial overgrown AlN on sapphire
 Appl. Phys. Lett. **103**, 212108 (2013)
- ▶ B. Neuschl, K. Thonke, M. Feneberg, R. Goldhahn, T. Wunderer, Z. Yang, N.M. Johnson, J. Xie, S. Mita, A. Rice, R. Collazo, Z. Sitar
 Direct determination of the silicon donor ionization energy in homoepitaxial AlN from photoluminescence two-electron transitions
 Appl. Phys. Lett. **103**, 122105/1-5 (2013)
- ▶ D. Zöllner, J. Dake and C.E. Krill
 Simulation der Korngrenzenmigration in polykristallinem Graphen
 In: *Fortschritte in der Metallographie, Praktische Metallographie Sonderband 45*, publisher: G. Petzow, DGM INVENTUM 247-252 (2013)
- ▶ S. Schäfer and D. Zöllner
 Triple-Junction-Winkel in diskretisierten digitalen Kornmikrostrukturen
 In: *Fortschritte in der Metallographie, Praktische Metallographie Sonderband 45*, publisher: G. Petzow, DGM INVENTUM 309-314 (2013)
- ▶ D. Zöllner
 On the Aboav-Weaire-law for junction limited grain growth in two dimensions
 Computational Materials Science **79**, 759-762 (2013)
- ▶ M. Wieneke, H. Witte, K. Lange, M. Feneberg, A. Dadgar, J. Bläsing, R. Goldhahn, and A. Krost
 Ge as a surfactant in metal-organic vapor phase epitaxy growth of a-plane GaN exceeding carrier concentrations of 10^{20} cm^{-3}
 Appl. Phys. Lett. **103**, 012103 (2013)
- ▶ M. Feneberg, M.F. Romero, M. Röppischer, C. Cobet, N. Esser, B. Neuschl, K. Thonke, M. Bickermann, and R. Goldhahn
 Anisotropic absorption and emission of bulk (1-100) AlN
 Phys. Rev. B **87**, 235209 (2013)
- ▶ P. Streitenberger
 Analytical description of phase coarsening at high volume fractions

- Acta Materialia **61**, 5026-5035 (2013)
- ▶ F. Scholz, K. Forghani, M. Klein, O. Klein, U. Kaiser, B. Neuschl, I. Tischer, M. Feneberg, K. Thonke, S. Lazarev, S. Bauer, and T. Baumbach
Studies on Defect Reduction in AlGa_N Heterostructures by Integrating an In-situ SiN Interlayer
Japan. J. Appl. Phys. **52**, 08JJ07 (2013)
 - ▶ M. Landmann, E. Rauls, W.G. Schmidt, M. Röppischer, C. Cobet, N. Esser, T. Schupp, D.J. As, M. Feneberg, and R. Goldhahn
Transition energies and direct-indirect band gap crossing in zinc-blende Al_xGa_{1-x}N
Phys. Rev. B. **87**, 195210 (2013)
 - ▶ M.F. Romero, M. Feneberg, P. Moser, C. Berger, J. Bläsing, A. Dadgar, A. Krost, E. Sakalauskas, F. Calle, R. Goldhahn
Systematic Optical Characterization of Two-Dimensional Electron Gases in InAlN/GaN-Based Heterostructures with Different In Content
Jap. J. Appl. Phys. **52**, 08JK02/1-4 (2013)
 - ▶ T. Brazzini, S. Pandey, M.F. Romero, P.Yu. Bokov, M. Feneberg, G. Tabares, A. Cavallini, R. Goldhahn, F. Calle
Impact of AlN Spacer on Metal-Semiconductor-Metal Pt-InAlGa_N/GaN Heterostructures for Ultraviolet Detection
Jap. J. Appl. Phys. **52**, 08JK04/1-4 (2013)
 - ▶ D. Zöllner and P. Streitenberger
Self-Similarity as a Feature of Nanocrystalline Grain Growth
Materials Science Forum **753**, 349-352 (2013)
 - ▶ S. Lenk, F. Schwarz, R. Goldhahn and E. Runge
Multivalence-band calculation of the excitonic dielectric function for hexagonal GaN
J. Phys.: Condens. Matter **25** (17), 175801/1-12 (2013)
 - ▶ M. Feneberg, M.F. Romero, B. Neuschl, K. Thonke, M. Röppischer, C. Cobet, N. Esser, M. Bickermann, and R. Goldhahn
Negative spin-exchange splitting in the exciton fine structure of AlN
Appl. Phys. Lett. **102**, 052112 (2013)
 - ▶ M. Himmerlich, A. Knübel, R. Aidam, L. Kirste, A. Eisenhardt, S. Krischok, J. Petzoldt, P. Schley, E. Sakalauskas, R. Goldhahn, R. Félix, J.M. Manuel, F.M. Morales, D. Carvalho, T. Ben, R. Garcia, and G. Koblmüller
N-type conductivity and properties of carbon-doped InN(0001) films grown by molecular beam epitaxy
J. Appl. Phys. **113**(03), 033501/1-10 (2013)
 - ▶ E. Specht
High density packings of equal circles in rectangles with variable aspect ratio
Computers & Operational Research **40**, 58-69 (2013)

2012

- ▶ Y. Xie, M. Madel, Y. Li, W. Jie, B. Neuschl, M. Feneberg, and K. Thonke
Polarity-controlled ultraviolet/visible light ZnO nanorods/p-Si photodetector
J. Appl. Phys. **112**, 123111 (2012)
- ▶ Y. Xie, M. Madel, B. Neuschl, W. Jie, U. Röder, M. Feneberg, and K. Thonke
Silicon-on-insulator based ZnO nanowire photodetector
J. Vac. Sci. Technol. B **30**, 061801 (2012)
- ▶ Y. Xie, W.-Q. Jie, T. Wang, M. Wiedenmann, B. Neuschl, M. Madel, Y.-B. Wang, M. Feneberg, and K. Thonke
Growth-induced Stacking Faults of ZnO Nanorods Probed by Spatial Resolved Cathodoluminescence
Chinese Phys. Lett. **29**, 077803 (2012)
- ▶ D. Zöllner, P. Streitenberger, and I. Fielden
The Kinetics of Individual Grains in Polycrystalline Materials
Practical Metallography **49**, 428-445 (2012)
- ▶ Y. Xie, W. Jie, A. Reiser, M. Feneberg, I. Tischer, M. Wiedenmann, M. Madel, R. Frey, U. Röder, and K. Thonke
Suppression of gallium inhomogeneity in ZnO nanostructures on GaN using seed layers
Mater. Lett. **83**, 31-34 (2012)
- ▶ D. Zöllner and P. Streitenberger
Potts model simulation of grain boundary junction limited grain growth
Materials Science Forum **715-716**, 623-628 (2012)
- ▶ P. Streitenberger and D. Zöllner
Grain Size Distributions and Evolution Equations in Nanocrystalline Grain Growth
Materials Science Forum **715-716**, 806-812 (2012)
- ▶ D. Zöllner and P. Streitenberger
Growth history of individual grains in polycrystals: Theoretical model and simulation studies
Materials Science Forum **715-716**, 877-882 (2012)
- ▶ D. Zöllner
Grain microstructure evolution in two-dimensional polycrystals under limited junction mobility
Scripta Materialia **67**, 41-44 (2012)
- ▶ M.F. Romero, M. Feneberg, P. Moser, C. Berger, J. Bläsing, A. Dadgar, A. Krost, E. Sakalauskas, R. Goldhahn
Luminescence from two-dimensional electron gases in InAlN/GaN heterostructures with different In content
Appl. Phys. Lett. **100** (21), 212101 (2012)
- ▶ B. Reuters, A. Wille, B. Holländer, E. Sakalauskas, N. Ketteniss, C. Mauder, R. Goldhahn, M. Heuken, H. Kalisch, and A. Vescan
Growth Studies on Quaternary AlInGa_N Layers for HEMT Application
J. Electronic Materials **41** (5), 905-909 (2012)

- ▶ Y. Xie, M. Madel, T. Zoberbier, A. Reiser, W. Jie, B. Neuschl, J. Biskupek, U. Kaiser, M. Feneberg, and K. Thonke
Enforced c-axis growth of ZnO epitaxial chemical vapor deposition films on a-plane sapphire
Appl. Phys. Lett. **100**, 182101 (2012)
- ▶ M. Feneberg, M. Röppischer, C. Cobet, N. Esser, J. Schörmann, T. Schupp, D.J. As, F. Hörich, J. Bläsing, A. Krost, R. Goldhahn
Optical properties of cubic GaN from 1 to 20 eV
Phys. Rev. B **85**, 155207 (2012)
- ▶ C. Berger, A. Dadgar, J. Bläsing, A. Franke, T. Hempel, R. Goldhahn, J. Christen, A. Krost
Growth of AlInN/AlGa_N distributed Bragg reflectors for high quality microcavities
Phys. Status Solidi C **9** (5), 1253-1258 (2012)
- ▶ M.-F. Romero, A. Jiménez, F. González-Posada Flores, S. Martín-Horcajo, F. Calle, E. Muñoz
Impact of N₂ Plasma Power Discharge on AlGa_N/Ga_N HEMT Performance
IEEE Trans. Electron Devices **59** (2), 374-379 (2012)
- ▶ B. Neuschl, K. Thonke, M. Feneberg, S. Mita, A. Xie, R. Dalmau, R. Collazo, and Z. Sitar
Optical identification of silicon as a shallow donor in MOVPE grown homoepitaxial AlN
Phys. Status Solidi B **249** (3), 511-515 (2012)
- ▶ E. Sakalauskas, Ö. Tuna, A. Kraus, H. Bremers, U. Rossow, C. Giesen, M. Heuken, A. Hangleiter, G. Gobsch, R. Goldhahn
Dielectric function and bowing parameters of InGa_N alloys
Phys. Status Solidi B **249** (3), 485-488 (2012)
- ▶ T. Lehmann, T. Wolff, C. Hamel, P. Veit, B. Garke, A. Seidel-Morgenstern
Physico-chemical characterization of Ni/MCM-41 synthesized by a template ion exchange approach
Microporous and Mesoporous Materials **151**, 113-125 (2012)
- ▶ M. Bickermann, O. Filip, B.M. Epelbaum, P. Heimann, M. Feneberg, B. Neuschl, K. Thonke, E. Wendler, and A. Winnacker
Growth of AlN bulk crystals on SiC seeds: Chemical analysis and crystal properties
J. Cryst. Growth **339** (1), 13-21 (2012)
- ▶ E. Sakalauskas, M. Wieneke, A. Dadgar, G. Gobsch, A. Krost, and R. Goldhahn
Optical anisotropy of a-plane Al_{0.8}In_{0.2}N grown on an a-plane Ga_N pseudosubstrate
Phys. Status Solidi A **209** (1), 29-32 (2012)

2011

- ▶ P. Streitenberger, D. Zöllner
Einfluss von reduzierter Mobilität und Energie von Tripellinien und Quadrupelpunkten auf Kornwachstum
In: A. Wanner, M. Rettenmayr, *Fortschritte in der Metallographie*, Sonderbände der Praktischen Metallographie, ed. by G. Petzow, vol. 43, p. 213-218 (2011)
- ▶ D. Zöllner, P. Streitenberger, I. Fielden
Einzelkornkinetik von Polykristallinen Materialien
In: A. Wanner, M. Rettenmayr, *Fortschritte in der Metallographie*, Sonderbände der Praktischen Metallographie, ed. by G. Petzow, vol. 43, p. 189-194 (2011)
- ▶ S. Kumar, S. Pandey, S.K. Gupta, T.K. Maurya, P. Schley, G. Gobsch, and R. Goldhahn
Band structure and optical properties of In-rich In_xAl_{1-x}N alloys
J. Phys.: Condens. Matter **23** (47), 475801/1-10 (2011)
- ▶ K. Forghani, M. Gharavipour, M. Klein, F. Scholz, O. Klein, U. Kaiser, M. Feneberg, B. Neuschl, and K. Thonke
In-situ deposited SiN_x nanomask for crystal quality improvement in AlGa_N
Phys. Status Solidi C **8** (7-8), 2063-2065 (2011)
- ▶ M. Madel, Y. Xie, I. Tischer, B. Neuschl, M. Feneberg, R. Frey, and K. Thonke
Catalytic growth of hexagonally aligned ZnO nanorods
Phys. Status Solidi B **208** (8), 1915-1918 (2011)
- ▶ C. Kraft, M. Hädrich, H. Metzner, U. Reislöhner, P. Schley, R. Goldhahn
Investigation of the Excitonic Luminescence Band of CdTe Solar Cells by Photoluminescence and Photoluminescence Excitation Spectroscopy
Thin Solid Films **519** (21), 7173-7175 (2011)
- ▶ C. Kraft, A. Brömel, S. Schönherr, M. Hädrich, U. Reislöhner, P. Schley, G. Gobsch, R. Goldhahn, W. Wesch, H. Metzner
Phosphorus Implanted Cadmium Telluride Solar Cells
Thin Solid Films **519** (21), 7153-7155 (2011)
- ▶ A. Rießer, F. Fuchs, C. Rödl, A. Schleife, F. Bechstedt, R. Goldhahn
Interplay of excitonic effects and van Hove singularities in optical spectra: CaO and AlN polymorphs
Phys. Rev. B **84** (7), 075218/1-13 (2011)
- ▶ M. Feneberg, M. Röppischer, N. Esser, C. Cobet, B. Neuschl, T. Meisch, K. Thonke, R. Goldhahn
Synchrotron-based photoluminescence excitation spectroscopy applied to investigate the valence band splittings in AlN and Al_{0.94}Ga_{0.06}N
Appl. Phys. Lett. **99** (2), 021903 (2011)
- ▶ M.D. Neumann, C. Cobet, N. Esser, B. Laumer, T.A. Wassner, M. Eickhoff, M. Feneberg, R. Goldhahn
Optical properties of MgZnO alloys: Excitons and exciton-phonon complexes
J. Appl. Phys. **110** (1), 013520/1-8 (2011)

- ▶ M. Feneberg, B. Neuschl, K. Thonke, R. Collazo, A. Rice, Z. Sitar, R. Dalmau, J. Xie, S. Mita, R. Goldhahn
Sharp bound and free exciton lines from homoepitaxial AlN
Phys. Status Solidi A **208** (7), 1520-1522 (2011)
- ▶ E. Sakalauskas, H. Behmenburg, P. Schley, G. Gobsch, C. Giesen, H. Kalisch, R.H. Jansen, M. Heuken, R. Goldhahn
Dielectric function of Al-rich AlInN in the range 1-18 eV
Phys. Status Solidi A **208** (7), 1517-1519 (2011)
- ▶ E. Sakalauskas, B. Reuters, L. Rahimzadeh Khoshroo, H. Kalisch, M. Heuken, A. Vescan, M. Röppischer, C. Cobet, G. Gobsch, R. Goldhahn
Dielectric function and optical properties of quaternary AlInGaN alloys
J. Appl. Phys. **110** (1), 013102/1-9 (2011)
- ▶ A. Kraus, S. Hammadi, J. Hisek, R. Buß, H. Jönen, H. Bremers, U. Rossow, E. Sakalauskas, R. Goldhahn, A. Hangleiter
Growth and characterization of InGaN by RF-MBE
J. Cryst. Growth **323** (1), 72-75 (2011)
- ▶ T. Schupp, T. Meisch, B. Neuschl, M. Feneberg, K. Thonke, K. Lischka, and D.J. As
Zinc-blende GaN quantum dots grown by vapor-liquid-solid condensation
J. Cryst. Growth **323** (1), 286-289 (2011)
- ▶ Dana Zöllner
A Potts model for junction limited grain growth
Computational Materials Science **50**, 2712-2719 (2011)
- ▶ G. Kunert, W. Freund, T. Aschenbrenner, C. Kruse, S. Figge, M. Schowalter, A. Rosenauer, J. Kalden, K. Sebal, J. Gutowski, M. Feneberg, I. Tischer, K. Fujan, K. Thonke, and D. Hommel
Light-emitting diode based on mask- and catalyst-free grown N-polar GaN nanorods
Nanotechnology **22**, 265202 (2011)
- ▶ T. Schupp, T. Meisch, B. Neuschl, M. Feneberg, K. Thonke, K. Lischka, and D.J. As
Molecular beam epitaxy based growth of cubic GaN quantum dots
Phys. Status Solidi C **8** (3), 1495 (2011)
- ▶ R. Dalmau, B. Moody, R. Schlessler, S. Mita, J. Xie, M. Feneberg, B. Neuschl, K. Thonke, R. Collazo, A. Rice, J. Tweedie and Z. Sitar
Growth and Characterization of AlN and AlGaIn Epitaxial Films On AlN Single Crystal Substrates
Journal of the Electrochemical Society **158**, H530 (2011)
- ▶ G. Rossbach, M. Feneberg, M. Röppischer, C. Werner, C. Cobet, N. Esser, T. Meisch, K. Thonke, A. Dadgar, J. Bläsing, A. Krost, and R. Goldhahn
Influence of exciton-phonon coupling and strain on the anisotropic optical response of wurtzite AlN around the band-edge
Phys. Rev. B **83** (19), 195202 (2011)
- ▶ P. Streitenberger, D. Zöllner
Evolution equations and size distributions in nanocrystalline grain growth
Acta Materialia **59** (10), 4235-4243 (2011)
- ▶ K. Köhler, S. Müller, P. Waltereit, W. Pletschen, V. Polyakov, L. Kirste, H.P. Menner, P. Brückner, O. Ambacher, C. Buchheim, R. Goldhahn
Electrical properties of Al_xGa_{1-x}N/GaN heterostructures with low Al content
J. Appl. Phys. **109** (5), 053705/1-5 (2011)
- ▶ I. Tischer, M. Feneberg, M. Schirra, H. Yacoub, R. Sauer, K. Thonke, T. Wunderer, F. Scholz, L. Dieterle, E. Müller, and Gerthsen
Stacking fault related luminescence features in semi-polar GaN
Phys. Status Solidi B **248** (3), 611-615 (2011)
- ▶ T. Wunderer, M. Feneberg, F. Lipski, J. Wang, R.A.R. Leute, S. Schwaiger, K. Thonke, A. Chuvilin, U. Kaiser, S. Metzner, F. Bertram, J. Christen, G.J. Beirne, M. Jetter, P. Michler, L. Schade, C. Vierheilig, U.T. Schwarz, D. Draeger, A. Hangleiter, and F. Scholz
Three-dimensional GaN for semipolar light emitters
Feature Article in *Phys. Status Solidi B* **248** (3), 549-560 (2011)
- ▶ M. Jetter, C. Wächter, A. Mayer, M. Feneberg, K. Thonke, and P. Michler
Quaternary AlInGaIn layers deposited by pulsed metal-organic vapor-phase epitaxy for high efficient light emission
J. Cryst. Growth **315** (1), 254-257 (2011)
- ▶ K. Forghani, M. Klein, F. Lipski, S. Schwaiger, J. Hertkorn, R.A.R. Leute, F. Scholz, M. Feneberg, B. Neuschl, K. Thonke, O. Klein, U. Kaiser, R. Gutt, and T. Passow
High quality AlGaIn epilayers grown on sapphire using SiN interlayers
J. Cryst. Growth **315** (1), 216-219 (2011)
- ▶ I. Tischer, M. Feneberg, M. Schirra, H. Yacoub, R. Sauer, K. Thonke, T. Wunderer, F. Scholz, L. Dieterle, E. Müller, and Gerthsen
I₂ basal plane stacking fault in GaN: Origin of the 3.32 eV luminescence band
Phys. Rev. B **83**, 035314 (2011)
- ▶ Z. Gao, V. Carabelli, E. Carbone, E. Colombo, M. Dipalo, Ch. Mafredotti, A. Pasquarelli, M. Feneberg, K. Thonke, E. Vittone, and E. Kohn
Transparent microelectrode array in diamond technology
J. Micro-Nano Mechatronics **6**, 33 (2011)

- ▶ T. Schupp, T. Meisch, B. Neuschl, M. Feneberg, K. Thonke, K. Lischka, and D.J. As
Growth of cubic GaN quantum dots
AIP Conf. Proc. **1292**, 165 (2010)
- ▶ C. Kraft, H. Metzner, M. Hädrich, U. Reislöhner, P. Schley, G. Gobsch, R. Goldhahn
Comprehensive photoluminescence study of chlorine activated polycrystalline cadmium telluride layers
J. Appl. Phys. **108** (12), 124503/1-8 (2010)
- ▶ D. Zöllner, P. Streitenberger
Grain Size Distributions in Normal Grain Growth
Praktische Metallographie **47** (11), 618-639 (2010)
- ▶ B. Neuschl, K.J. Fujan, M. Feneberg, I. Tischer, K. Thonke, K. Forghani, M. Klein, and F. Scholz
Cathodoluminescence and photoluminescence study on AlGaIn layers grown with SiN_x interlayers
Appl. Phys. Lett. **97**, 192108 (2010)
- ▶ R. Dalmau, B. Moody, R. Schlessler, S. Mita, J. Xie, M. Feneberg, B. Neuschl, K. Thonke, R. Collazo, A. Rice, J. Tweedie and Z. Sitar
Growth and Characterization of AlN and AlGaIn Epitaxial Films On AlN Single Crystal Substrates
ECS transactions **33**, 43 (2010)
- ▶ T. Schupp, T. Meisch, B. Neuschl, M. Feneberg, K. Thonke, K. Lischka, and D.J. As
Droplet epitaxy of zinc-blende GaN quantum dots
J. Cryst. Growth **312**, 3235 (2010)
- ▶ D. Zöllner, P. Streitenberger
Characterisation of 3D Microstructural Evolution of Individual Grains
Proc. 31st Risø Int. Symp. on *Challenges in materials science and possibilities in 3D and 4D characterization techniques* ed. by N. Hansen, D. J. Jensen, S. F. Nielsen, H. F. Poulsen, B. Ralph, p. 505-513 (2010)
- ▶ Z. Gao, V. Carabelli, E. Carbone, E. Colombo, M. Dipalo, Ch. Mafredotti, A. Pasquarelli, M. Feneberg, K. Thonke, E. Vittone, and E. Kohn
Transparent microelectrode array in diamond technology
IEEE Nanomed Conf. Series, 3rd. Int. Conf. 2009 **282** (2010)
- ▶ K.J. Fujan, M. Feneberg, B. Neuschl, I. Tischer, K. Thonke, S. Schwaiger, I. Izadi, F. Scholz, L. Lechner, J. Biskupek, and U. Kaiser
Cathodoluminescence of GaInN quantum wells grown on nonpolar a plane GaN: Intense emission from pit facets
Appl. Phys. Lett. **97**, 101904 (2010)
- ▶ E. Sakalauskas, H. Behmenburg, C. Hums, P. Schley, G. Rossbach, C. Giesen, M. Heuken, H. Kalisch, R.H. Jansen, J. Bläsing, A. Dadgar, A. Krost and R. Goldhahn
Dielectric function and optical properties of Al-rich AlInN alloys pseudomorphically grown on GaN
J. Phys. D: Appl. Phys. **43**, 365102 (2010)
- ▶ M. Feneberg, R.A.R. Leute, B. Neuschl, K. Thonke, M. Bickermann
High-excitation and high-resolution photoluminescence spectra of bulk AlN
Phys. Rev. B **82**, 075208 (2010)
- ▶ P. Waltereit, W. Bronner, R. Quay, M. Dammann, S. Müller, K. Köhler, M. Mikulla, O. Ambacher, L. Harm, M. Lorenzini, R. Rödle, K. Riepe, K. Bellmann, C. Buchheim, R. Goldhahn
Development of rugged 2 GHz power bars delivering more than 100 W and 60% power added efficiency
Phys. Status Solidi C **7** (10), 2398-2403 (2010)
- ▶ F. Scholz, T. Wunderer, M. Feneberg, K. Thonke, A. Chuvilin, U. Kaiser, S. Metzner, F. Bertram, and J. Christen
GaInN-based LED structures on selectively grown semi-polar crystal facets
Phys. Status Solidi A **207** (6), 1407-1413 (2010)
- ▶ M. Bickermann, B.M. Epelbaum, O. Filip, P. Heimann, M. Feneberg, S. Nagata, and A. Winnacker
Deep-UV transparent bulk single-crystalline AlN substrates
Phys. Status Solidi C **7** (7-8), 1743-1745 (2010)
- ▶ G. Rossbach, M. Röppischer, P. Schley, G. Gobsch, C. Werner, C. Cobet, N. Esser, A. Dadgar, M. Wieneke, A. Krost, R. Goldhahn
Valence-band splitting and optical anisotropy of AlN
Phys. Status Solidi B **247** (7), 1679-1682 (2010)
- ▶ T. Schupp, G. Rossbach, P. Schley, R. Goldhahn, M. Röppischer, N. Esser, C. Cobet, K. Lischka, and D.J. As
MBE growth of cubic AlN on 3C-SiC substrate
Phys. Status Solidi A **207** (6), 1365-1368 (2010)
- ▶ I. Hotovy, J. Pezoldt, M. Kadlecikova, T. Kups, L. Spiess, J. Breza, E. Sakalauskas, R. Goldhahn, V. Rehacek
Structural characterization of sputtered indium oxide films deposited at room temperature
Thin Solid Films **518** (16), 4508-4511 (2010)
- ▶ M. Feneberg, K. Thonke, T. Wunderer, F. Lipski, and F. Scholz
Piezoelectric polarization of semipolar and polar GaInN quantum wells grown on strained GaN templates
J. Appl. Phys. **107**, 103517 (2010)
- ▶ K. Thonke, M. Schirra, R. Schneider, A. Reiser, G.M. Prinz, M. Feneberg, R. Sauer, J. Biskupek, and U. Kaiser
The role of stacking faults and their associated 0.13 eV acceptor state in doped and undoped ZnO layers and nanostructures
Phys. Status Solidi B **247**, 1464 (2010)
- ▶ A. Romanyuk, V. Melnik, Y. Olikh, J. Biskupek, U. Kaiser, M. Feneberg, K. Thonke, and P. Oelhafen
Light emission from nanocrystalline silicon clusters embedded in silicon dioxide: Role of the suboxide states
J. Lumin. **130**, 87 (2010)

- ▶ P. Schley, J. Räthel, E. Sakalauskas, G. Gobsch, M. Wieneke, J. Bläsing, A. Krost, G. Koblmüller, J.S. Speck, R. Goldhahn
Optical anisotropy of A- and M-plane InN grown on free-standing GaN substrates
Phys. Status Solidi A **207** (5), 1062-1065 (2010)
- ▶ E. Sakalauskas, P. Schley, J. Räthel, T.A. Klar, R. Müller, J. Pezoldt, K. Tonisch, J. Grandal, M.A. Sánchez-García, E. Calleja, A. Vilalta-Clemente, P. Ruterana, R. Goldhahn
Optical properties of InN grown on Si(111) substrate
Phys. Status Solidi A **207** (5), 1066-1069 (2010)
- ▶ K. Köhler, S. Müller, R. Aidam, P. Waltereit, W. Pletschen, L. Kirste, H.P. Menner, W. Bronner, A. Leuther, R. Quay, M. Mikulla, O. Ambacher, R. Granzner, F. Schwierz, C. Buchheim, R. Goldhahn
Influence of the surface potential on electrical properties of $\text{Al}_x\text{Ga}_{1-x}\text{N}/\text{GaN}$ heterostructures with different Al content: Effect of growth method
J. Appl. Phys. **107** (5), 053711 (2010)
- ▶ T. Schupp, G. Rossbach, P. Schley, R. Goldhahn, K. Lischka, D.J. As
Growth of atomically smooth cubic AlN by molecular beam epitaxy
Phys. Status Solidi C **7** (1), 17-20 (2010)

älter als 2010

(unvollständig)

- ▶ V. Lavchiev, R. Holly, G. Chen, F. Schäffler, R. Goldhahn, W. Jantsch
Si rib waveguide photodetector with an ordered array of Ge islands for 1.5 μm
Optics Letters **34** (24), 3785-3787 (2009)
- ▶ M. Röppischer, R. Goldhahn, G. Rossbach, P. Schley, C. Cobet, N. Esser, T. Schupp, K. Lischka, D.J. As
Dielectric function of zinc-blende AlN from 1 to 20 eV: Band gap and van Hove singularities
J. Appl. Phys. **106** (7), 076104 (2009)
- ▶ P. Waltereit, S. Müller, K. Bellmann, C. Buchheim, R. Goldhahn, K. Köhler, L. Kirste, M. Baeumler, M. Dammann, W. Bronner, R. Quay, O. Ambacher
Impact of GaN cap thickness on optical, electrical, and device properties in AlGaIn/GaN high electron mobility transistor structures
J. Appl. Phys. **106** (2), 023535 (2009)
- ▶ C. Cobet, R. Goldhahn, W. Richter, N. Esser (Feature Article)
Identification of van Hove singularities in the GaN dielectric function: a comparison of the cubic and hexagonal phase
Phys. Status Solidi B **246** (7), 1440-1449 (2009)
- ▶ M. Feneberg, J. Däubler, K. Thonke, R. Sauer, P. Schley, R. Goldhahn
Near band-gap photoluminescence of InN due to Mahan excitons
Phys. Status Solidi C **6** (S2), S385-S388 (2009)
- ▶ P. Schley, R. Goldhahn, G. Gobsch, M. Feneberg, K. Thonke, X. Wang, A. Yoshikawa
Influence of strain on the band gap energy of wurtzite InN
Phys. Status Solidi B **246** (6), 1177-1180 (2009)
- ▶ M. Röppischer, R. Goldhahn, C. Buchheim, F. Furtmayr, T. Wassner, M. Eickhoff, C. Cobet, N. Esser (Editor's Choice)
Analysis of polarization-dependent photorefectance studies for c-plane GaN films grown on a-plane sapphire
Phys. Status Solidi A **206** (5), 773-779 (2009)
- ▶ J. Eberhardt, J. Cieslak, H. Metzner, Th. Hahn, R. Goldhahn, F. Hudert, J. Kräußlich, U. Kaiser, A. Chuvilin, U. Reislöhner, W. Witthuhn
Epitaxial and polycrystalline CuInS_2 layers: Structural metastability and its influence on the photoluminescence
Thin Solid Films **517** (7), 2248-2251 (2009)
- ▶ C. Buchheim, M. Röppischer, R. Goldhahn, G. Gobsch, C. Cobet, C. Werner, N. Esser, A. Dadgar, M. Wieneke, J. Bläsing, A. Krost
Influence of anisotropic strain on excitonic transitions in a-plane GaN films
Microelectronics Journal **40** (2), 322-324 (2009)
- ▶ 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. **6**, 012002 (2009)
- ▶ D. Wahl, A. Ladenburger, M. Feneberg, W. Schoch, K. Thonke, and R. Sauer
Semiconductor quantum dots through conversion of micelle-generated metal clusters
Appl. Phys. Lett. **95**, 093105 (2009)
- ▶ 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. **95**, 031903 (2009)
- ▶ T. Wunderer, F. Lipski, S. Schwaiger, J. Hertkorn, M. Wiedenmann, M. Feneberg, K. Thonke, and F. Scholz
Properties of Blue and Green InGaIn/GaN Quantum Well Emission on Structured Semipolar Surfaces
Jpn. J. Appl. Phys. **48**, 060201 (2009)
- ▶ L. D. Yao, D. Weissenberger, M. Dürrschnabel, D. Gerthsen, I. Tischer, M. Wiedenmann, M. Feneberg, A. Reiser, and K. Thonke
Structural and cathodoluminescence properties of ZnO nanorods after Ga-implantation and annealing

- J. Appl. Phys. **105**, 103521 (2009)
- ▶ F. Scholz, T. Wunderer, B. Neubert, M. Feneberg, and K. Thonke
GaN-based Light Emitting Diodes on Selectively Grown Semipolar Crystal Facets
MRS Bulletin **34**, 297 (2009)
 - ▶ M. Schirra, M. Feneberg, G. M. Prinz, A. Reiser, T. Röder, K. Thonke, and R. Sauer
Beating of Coupled Ultraviolet Light Modes in Zinc Oxide Nanoresonators
Phys. Rev. Lett. **102**, 073903 (2009)
 - ▶ D. Weissenberger, D. Gerthsen, A. Reiser, G. M. Prinz, M. Feneberg, K. Thonke, H. Zhou, J. Sartor, J. Fallert, C. Klingshirn, and H. Kalt
Influence of the measurement procedure on the field-effect dependent conductivity of ZnO nanorods
Appl. Phys. Lett. **94**, 042107 (2009)
 - ▶ 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. Status Solidi C **6**, S352 (2009)
 - ▶ A. Reiser, V. Raeesi, G. M. Prinz, M. Schirra, M. Feneberg, U. Röder, R. Sauer, and K. Thonke
Growth of high-quality, uniform c-axis-oriented zinc oxide nano-wires on a-plane sapphire substrate with zinc oxide templates
Microelectronics J. **40**, 306 (2009)
 - ▶ K. Thonke, M. Schirra, R. Schneider, A. Reiser, G. M. Prinz, M. Feneberg, J. Biskupek, U. Kaiser, and R. Sauer
The role of stacking faults and their associated 0.13 eV acceptor state in doped and undoped ZnO layers and nanostructures
Microelectronics J. **40**, 210 (2009)
 - ▶ J.S. Rojas-Ramírez, R. Goldhahn, P. Moser, J. Huerta-Ruelas, J. Hernández-Rosas, M. López-López
Temperature dependence of the photoluminescence emission from $\text{In}_x\text{Ga}_{1-x}\text{As}$ quantum wells on GaAs(311) substrates
J. Appl. Phys. **104** (12), 124304 (2008)
 - ▶ A. Schleife, C. Rödl, F. Fuchs, J. Furthmüller, F. Bechstedt, P.H. Jefferson, T.D. Veal, C.F. Mc Conville, L.F.J. Piper, A. DeMasi, K.E. Smith, H. Lösch, R. Goldhahn, C. Cobet, J. Zúñiga-Pérez, V. Muñoz-Sanjosé
Ab-Initio Studies of Electronic and Spectroscopic Properties of MgO, ZnO and CdO
J. Korean Phys. Soc. **53** (5), 2811-2815 (2008)
 - ▶ K. Tonisch, C. Buchheim, F. Niebelschütz, A. Schober, G. Gobsch, V. Cimalla, O. Ambacher, R. Goldhahn
Piezoelectric actuation of (GaN)/AlGaN/GaN heterostructures
J. Appl. Phys. **104** (8), 084516 (2008)
 - ▶ M. Feneberg, J. Däubler, K. Thonke, R. Sauer, P. Schley, R. Goldhahn
Mahan excitons in degenerate wurtzite InN: Photoluminescence spectroscopy and reflectivity measurements
Phys. Rev. B **77** (24), 245207 (2008)
 - ▶ K. Tonisch, C. Buchheim, F. Niebelschütz, M. Donahue, R. Goldhahn, V. Cimalla, O. Ambacher
Piezoelectric actuation of all-nitride MEMS
Phys. Status Solidi C **5** (6), 1910-1913 (2008)
 - ▶ P. Schley, C. Napierala, R. Goldhahn, G. Gobsch, J. Schörmann, D. J. As, K. Lischka, M. Feneberg, K. Thonke, F. Fuch F. Bechstedt
Band gap and effective electron mass of cubic InN
Phys. Status Solidi C **5** (6), 2342-2344 (2008)
 - ▶ P. Schley, R. Goldhahn, C. Napierala, G. Gobsch, J. Schörmann, D.J. As, K. Lischka, M. Feneberg, K. Thonke
Dielectric function of cubic InN from the mid-infrared to the visible spectral range
Semicond. Sci. Technol. **23** (5), 055001 (2008)
 - ▶ M. Rakel, C. Cobet, N. Esser, F. Fuchs, F. Bechstedt, R. Goldhahn, W.G. Schmidt, W. Schaff
GaN and InN conduction-band states studied by ellipsometry
Phys. Rev. B **77** (11), 115120 (2008)
 - ▶ C. Buchheim, R. Goldhahn, G. Gobsch, K. Tonisch, V. Cimalla, F. Niebelschütz, O. Ambacher
Electric field distribution in GaN/AlGaN/GaN heterostructures with two-dimensional electron and hole gas
Appl. Phys. Lett. **92** (1), 013510 (2008)
 - ▶ D. Zöllner, P. Streitenberger
Monte Carlo Simulation of Normal Grain Growth in Three Dimensions
Materials Science Forum **567-568**, 81-84 (2008)
 - ▶ C.P. Yeh, M. Lisker, V. Vezin, B. Seitzinger, P.K. Baumann, B. Garke, J. Bläsing, A. Krost, E.P. Burte
Fabrication of ferroelectric PZT thin films by liquid delivery MOCVD using novel Zr and Ti precursors
Integrated Ferroelectrics **104** (1), 16-24 (2008)
 - ▶ J. Eberhardt, H. Metzner, R. Goldhahn, F. Hudert, K. Schulz, U. Reislöhner, T. Hahn, J. Cieslak, W. Witthuhn
Optical properties of strained polycrystalline CuInS_2 layers
Mater. Res. Soc. Symp. Proc. **1012**, 419-424 (2007)
 - ▶ P.D.C. King, T.D. Veal, C.F. McConville, F. Fuchs, J. Furthmüller, F. Bechstedt, P. Schley, R. Goldhahn, J. Schörmann, D.J. As, K. Lischka, D. Muto, H. Naoi, Y. Nanishi, H. Lu, W.J. Schaff
Universality of electron accumulation at wurtzite c- and a-plane and zinc-blende InN surfaces
Appl. Phys. Lett. **91** (9), 092101 (2007)
 - ▶ J. Eberhardt, H. Metzner, K. Schulz, U. Reislöhner, Th. Hahn, J. Cieslak, W. Witthuhn, R. Goldhahn, F. Hudert, J. Kräußlich

Excitonic luminescence of polycrystalline CuInS_2 solar cell material under the influence of strain

J. Appl. Phys. **102** (3), 033503 (2007)

- ▶ C. Buchheim, R. Goldhahn, A.T. Winzer, G. Gobsch, U. Rossow, D. Fuhrmann, A. Hangleiter, F. Furtmayr, M. Eickhoff
Stark shift of interband transitions in AlN/GaN superlattices
Appl. Phys. Lett. **90** (24), 241906 (2007)
- ▶ P. Schley, R. Goldhahn, A.T. Winzer, G. Gobsch, V. Cimalla, O. Ambacher, H. Lu, W.J. Schaff, M. Kurouchi, Y. Nanishi, M. Rakel, C. Cobet, N. Esser
Dielectric function and Van Hove singularities for In-rich $\text{In}_x\text{Ga}_{1-x}\text{N}$ alloys: Comparison of N- and metal-face materials
Phys. Rev. B **75** (20), 205204 (2007)
- ▶ J. Eberhardt, K. Schulz, H. Metzner, J. Cieslak, Th. Hahn, U. Reislöhner, M. Gossila, F. Hudert, R. Goldhahn, W. Witthur
Epitaxial and polycrystalline CuInS_2 thin films: A comparison of opto-electronic properties
Thin Solid Films **515** (15), 6147-6150 (2007)
- ▶ R. Goldhahn, A.T. Winzer, A. Dadgar, A. Krost, O. Weidemann, M. Eickhoff (Editor's Choice)
Modulation spectroscopy of $\text{AlGaIn}/\text{GaIn}$ heterostructures: The influence of electron-hole interaction
Phys. Status Solidi A **204** (2), 447-458 (2007)
- ▶ J. Schörmann, D.J. As, K. Lischka, P. Schley, R. Goldhahn, S.F. Li, W. Löffler, M. Hetterich, H. Kalt
Molecular beam epitaxy of phase pure cubic InN
Appl. Phys. Lett. **89** (26), 261903 (2006)
- ▶ V. Cimalla, V. Lebedev, F.M. Morales, M. Niebelschütz, G. Ecke, R. Goldhahn, O. Ambacher
Origin of n-type conductivity in nominally undoped InN
Materialwissenschaft und Werkstofftechnik **37** (11), 924-928 (2006)
- ▶ V. Cimalla, V. Lebedev, F.M. Morales, R. Goldhahn, O. Ambacher
Model for the thickness dependence of electron concentration in InN films
Appl. Phys. Lett. **89**, 172109 (2006)
- ▶ V.G. Talalaev, J.W. Tomm, A.S. Sokolov, I.V. Shtrom, B.V. Novikov, A.T. Winzer, R. Goldhahn, G. Gobsch, N.D. Zakhar
P. Werner, U. Gösele, G.E. Cirlin, A.A. Tonkikh, V.M. Ustinov, G.G. Tarasov
Tuning of the interdot resonance in stacked InAs quantum dot arrays by an external electric field
J. Appl. Phys. **100** (8), 083704 (2006)
- ▶ A.T. Winzer, G. Gobsch, R. Goldhahn, D. Fuhrmann, A. Hangleiter, A. Dadgar, A. Krost
Influence of excitons and electric fields on the dielectric function of GaIn : Theory and experiment
Phys. Rev. B **74** (12), 125207 (2006)
- ▶ C. Buchheim, R. Goldhahn, A. T. Winzer, C. Cobet, M. Rakel, N. Esser, U. Rossow, D. Fuhrmann, A. Hangleiter, O. Ambacher
Critical points of the bandstructure of AlIn/GaIn superlattices investigated by spectroscopic ellipsometry and modulation spectroscopy
Phys. Status Solidi C **3** (6), 2009-2013 (2006)
- ▶ V. Cimalla, M. Niebelschütz, G. Ecke, O. Ambacher, R. Goldhahn, H. Lu, W. J. Schaff
The conductivity of Mg-doped InN
Phys. Status Solidi C **3** (6), 1721-1724 (2006)
- ▶ P. Schley, R. Goldhahn, A.T. Winzer, G. Gobsch, V. Cimalla, O. Ambacher, M. Rakel, C. Cobet, N. Esser, H. Lu, W.J. Schaff
Transition energies and Stokes shift analysis for In-rich InGaIn alloys
Phys. Status Solidi B **243** (7), 1572-1576 (2006)
- ▶ R. Goldhahn, P. Schley, A.T. Winzer, M. Rakel, C. Cobet, N. Esser, H. Lu, W.J. Schaff
Critical points of the band structure and valence band ordering at the Γ point of wurtzite InN
J. Cryst. Growth **288** (2), 273-277 (2006)
- ▶ R. Goldhahn, P. Schley, A.T. Winzer, G. Gobsch, V. Cimalla, O. Ambacher, M. Rakel, C. Cobet, N. Esser, H. Lu, W.J. Schaff
Detailed analysis of the dielectric function for wurtzite InN and In-rich InAlIn alloys
Phys. Status Solidi A **203** (1), 42-49 (2006)
- ▶ A.T. Winzer, R. Goldhahn, G. Gobsch, A. Dadgar, A. Krost, O. Weidemann, M. Stutzmann, M. Eickhoff
Electroreflectance spectroscopy of $\text{Pt}/\text{AlGaIn}/\text{GaIn}$ heterostructures exposed to gaseous hydrogen
Appl. Phys. Lett. **88** (2), 024101 (2006)
- ▶ P. Streitenberger and D. Zöllner
Effective growth law from three-dimensional grain growth simulations and new analytical grain size distribution
Scripta Materialia **55** (5), 461-464 (2006)
- ▶ D. Zöllner and P. Streitenberger
Three Dimensional Normal Grain Growth: Monte Carlo Potts Model Simulation and Analytical Mean Field Theory
Scripta Materialia **54** (9), 1697-1702 (2006)
- ▶ S. Matchyn, M. Lisker, M. Silinskas, B. Garke, E. Burte
Characterisation of Ferroelectric $\text{PbZr}_x\text{Ti}_{1-x}\text{O}_3$ (PZT) Thin Films Prepared by Liquid-Delivery Metalorganic Chemical Vap
Deposition
Integrated Ferroelectrics **81**, 289-295 (2006)



Kontakt

Otto-von-Guericke-Universität

Magdeburg

Universitätsplatz 2

39106 Magdeburg

Sekretariat

A. Lidzba

Tel.: 58674

✉ annette.lidzba@ovgu.de

› Sekretariat

GraFOx



Forschungsportal

SPP2312 GaNius

Aktuelle Informationen



zum Physikstudium

