

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. 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
Pyrazolylpropanoate 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-Carboranylamine 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 -(Ti_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
Z. Anorg. Angew. Chemie **649**(1), e202200289 (2023).

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 V_2O_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>)

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- ▶ 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 $(\text{In,Ga})_2\text{O}_3$ 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. Hählsler, H. Nadasi, 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>)

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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. Tacken, 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>)

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- ▶ 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).

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- ▶ 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
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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>)

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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
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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>)
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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>)
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New J. Phys. **20**, 053016 (2018)
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- ▶ 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>), B. 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
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Structural and optical characterization of AlGaIn multiple quantum wells grown on semipolar (20-21) bulk AlN substrate
Appl. Phys. Lett. **111**, 111101 (2017)
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- ▶ 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>)

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- ▶ P. Streitenberger, D. Zöllner
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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
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Triple junction energy and mobility controlled microstructural evolution in 2D and 3D polycrystals
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- ▶ D.O. Demchenko, N. Izyumskaya, M. Feneberg, V. Avrutin, Ü. Özgür, R. Goldhahn, and H. Morkoç
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Phys. Rev. B **94**, 075206 (2016)
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J. Appl. Phys. **120**, 015703 (2016)
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Grain microstructural evolution in 2D and 3D polycrystals under triple junction energy and mobility control
Computational Materials Science **118**, 325-337 (2016)
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Inversion of absorption anisotropy and bowing of crystal field splitting in wurtzite MgZnO
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Many-electron effects on the dielectric function of cubic In₂O₃: Effective electron mass, band nonparabolicity, band gap renormalization, and Burstein-Moss shift
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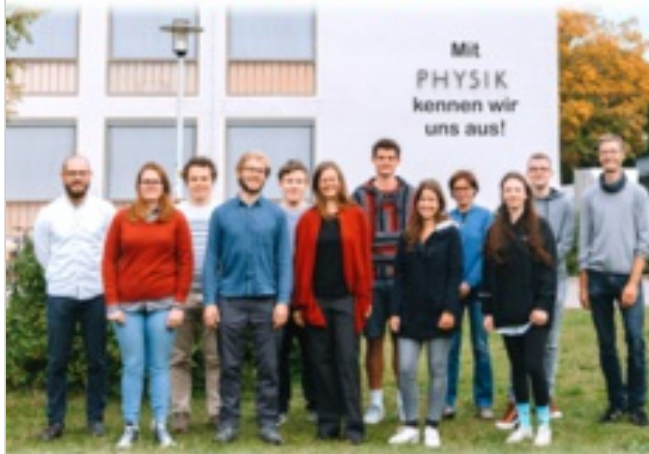
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