

3. Publications 2003

Alsina, F., P. V. Santos, S. Eshlaghi, and A. D. Wieck,
Tunable electronic properties in quantum wells modulated by surface acoustic waves,
in *Proceedings of the 26th International Conference on the Physics of Semiconductors*, edited
by A. R. Long and J. H. Davies, IOP Conf. Ser. **171**, D81.pdf, 8 pages (2003).

Alsina, F., P. V. Santos, H.-P. Schönherr, R. Nötzel, and K. H. Ploog,
Real-time dynamics of the acoustically induced carrier transport in GaAs quantum wires,
Phys. Rev. B **67**, 161305(R), 4 pages (2003).

Alsina, F., J. A. H. Stotz, R. Hey, and P. V. Santos,
Acoustically induced potential dots in GaAs quantum wells,
Solid State Commun. **129**, 453–457 (2003).

Bardot, C., M. Potemski, G. Martinez, A. Riedel, R. Hey, and K.-J. Friedland,
Excitations of a dense two dimensional electron gas: Luminescence and resonant Raman
magneto-spectroscopy in the regime of quantum Hall effect,
in *Proceedings of the 26th International Conference on the Physics of Semiconductors*, edited
by A. R. Long and J. H. Davies, IOP Conf. Ser. **171**, H78.pdf, 7 pages (2003).

Behn, U., O. Brandt, and H. T. Grahn,
Relation between photoreflectance excitation and absorption spectra for GaAs and GaN films,
J. Appl. Phys. **93**, 221–225 (2003).

Bierwagen, O., C. Walther, W. T. Masselink, and K.-J. Friedland,
Weak localization in laterally coupled quantum wires,
Phys. Rev. B **67**, 195331, 5 pages (2003).

Brandt, O., Y. J. Sun, H.-P. Schönherr, K. H. Ploog, P. Waltereit, S.-H. Lim, and J. S. Speck,
Improved synthesis of (In,Ga)N/GaN multiple quantum wells by plasma-assisted
molecular-beam epitaxy,
Appl. Phys. Lett. **83**, 90–92 (2003).

Braun, W., B. Jenichen, V. M. Kaganer, A. S. Shtukenberg, L. Däweritz, and K. H. Ploog,
Island and pit kinetics on the growing GaAs(001) surface studied by synchrotron x-ray
diffraction,
J. Cryst. Growth **251**, 56–61 (2003).

Braun, W., B. Jenichen, V. M. Kaganer, A. G. Shtukenberg, L. Däweritz, and K. H. Ploog,
Layer-by-layer growth of GaAs(001) studied by in situ synchrotron x-ray diffraction,
Surf. Sci. **525**, 126–136 (2003).

Braun, W., and K. H. Ploog,
Real-time surface composition and roughness analysis in MBE using RHEED-induced x-ray
fluorescence,
J. Cryst. Growth **251**, 68–72 (2003).

- Bryksin, V. V., and P. Kleinert,
Diffusion and electric field domain formation in one-dimensional superlattices,
Phys. Lett. A **308**, 202–207 (2003).
- Bryksin, V. V., and P. Kleinert,
Theory of quantum diffusion in biased semiconductors,
J. Phys.: Condens. Matter **15**, 1415–1425 (2003).
- Bryksin, V. V., P. Kleinert, and M. P. Petrov,
Theory of space-charge waves in semiconductors with negative differential conductivity,
Fiz. Tverd. Tela (St. Petersburg) **45**, 1946–1953 (2003) [*Phys. Solid State* **45**, 2044–2052].
- Butkute, R., M. Aleszkiewicz, E. Janik, G. Cywiński, P. Wojnar, L. Däweritz, J.-L. Primus,
J. de Boeck, and J. Kossut,
Topographical, magnetic and optical studies of (II,Mn)VI quantum structures grown on
(Ga,Mn)As,
Acta Physica Polonica A **103**, 649–657 (2003).
- Camacho, J., P. V. Santos, F. Alsina, M. Ramsteiner, K. H. Ploog, A. Cantarero, H. Obloh, and
J. Wagner,
Modulation of the electronic properties of GaN films by surface acoustic waves,
J. Appl. Phys. **94**, 1892–1897 (2003).
- Chauveau, J.-M., A. Trampert, M.-A. Pinault, E. Tournié, K. Du, and K. H. Ploog,
Correlations between structural and optical properties of GaInNAs quantum wells grown by
MBE,
J. Cryst. Growth **251**, 383–387 (2003).
- Chauveau, J.-M., A. Trampert, K. H. Ploog, M.-A. Pinault, and E. Tournié,
Interplay between the growth temperature, microstructure, and optical properties of GaInNAs
quantum wells,
Appl. Phys. Lett. **82**, 3451–3453 (2003).
- Das, A. K., C. Pampuch, A. Ney, T. Hesjedal, L. Däweritz, R. Koch, and K. H. Ploog,
Ferromagnetism of MnAs studied by heteroepitaxial films on GaAs(001),
Phys. Rev. Lett. **91**, 087203, 4 pages (2003).
- Däweritz, L., M. Kästner, T. Hesjedal, T. Plake, B. Jenichen, and K. H. Ploog,
Structural and magnetic order in MnAs films grown by molecular beam epitaxy on GaAs for
spin injection,
J. Cryst. Growth **251**, 297–302 (2003).
- Däweritz, L., M. Ramsteiner, A. Trampert, M. Kästner, F. Schippan, H.-P. Schönherr,
B. Jenichen, and K. H. Ploog,
Growth and properties of ferromagnet-semiconductor hetero-structures for spin injection,
Phase Transit. **76**, 445–458 (2003).

Deatcher, C. J., C. Liu, S. Pereira, M. Lada, A. G. Cullis, Y. J. Sun, O. Brandt, and I. M. Watson,
In situ optical reflectometry applied to growth of indium gallium nitride epilayers and multi-quantum well structures,
Semicond. Sci. Technol. **18**, 212–218 (2003).

de Lima, Jr., M. M., F. Alsina, W. Seidel, and P. V. Santos,
Focusing of surface-acoustic-wave fields on (100) GaAs surfaces,
J. Appl. Phys. **94**, 7848–7855 (2003).

de Lima, Jr., M. M., R. Hey, and P. V. Santos,
Active photonic crystals based on surface acoustic waves,
Appl. Phys. Lett. **83**, 2997–2999 (2003).

Dhar, S., O. Brandt, A. Trampert, L. Däweritz, K. J. Friedland, K. H. Ploog, J. Keller, B. Beschoten, and G. Güntherodt,
Origin of high-temperature ferromagnetism in (Ga,Mn)N layers grown on 4H-SiC(0001) by reactive molecular-beam epitaxy,
Appl. Phys. Lett. **82**, 2077–2079 (2003).

Dhar, S., O. Brandt, A. Trampert, K. Friedland, and K. H. Ploog,
Magnetic properties of (Ga,Mn)N grown directly on 4H-SiC substrates by molecular-beam epitaxy,
in *Proceedings of the 29th International Symposium on Compound Semiconductors 2002*, edited by M. Ilegems, G. Weimann, and J. Wagner, IOP Conf. Ser. **174**, 141–144 (2003).

Dhar, S., O. Brandt, A. Trampert, K. J. Friedland, Y. J. Sun, and K. H. Ploog,
Observation of spin-glass behavior in homogeneous (Ga,Mn)N layers grown by reactive molecular-beam epitaxy,
Phys. Rev. B **67**, 165205, 7 pages (2003).

Faugeras, C., J. Zeman, M. Potemski, G. Martinez, A. Riedel, R. Hey, and K.-J. Friedland,
Electron correlation in two dimensional electron gas studied by cyclotron resonance,
in *Proceedings of the 26th International Conference on the Physics of Semiconductors*, edited by A. R. Long and J. H. Davies, IOP Conf. Ser. **171**, P131.pdf, 4 pages (2003).

Faugeras, C., J. Zeman, M. Potemski, G. Martinez, A. Riedel, R. Hey, and K.-J. Friedland,
Polaron coupling in high density GaAs quantum well,
in *Proceedings of the 26th International Conference on the Physics of Semiconductors*, edited by A. R. Long and J. H. Davies, IOP Conf. Ser. **171**, P132.pdf, 6 pages (2003).

Flannery, C. M., and D. C. Hurley,
Laser ultrasound: An inspection tool of soft porous low-dielectric constant films for microelectronic interconnect,
AIP Conf. Proc. **657**, 1436–1470 (2003).

Flannery, C. M., and H. von Kiedrowski,
Roughness-caused dispersion of high frequency surface acoustic waves on crystal materials,
AIP Conf. Proc. **657**, 1056–1063 (2003).

Flannery, C. M., M. D. Whitfield, and R. B. Jackman,
Acoustic wave properties of CVD diamond,
Semicond. Sci. Technol. **18**, S86–S95 (2003).

Friedland, K.-J., M. Kästner, and L. Däweritz,
Epitaxial orientation and planar Hall effect for MnAs films grown on GaAs(001),
J. Supercond. **16**, 261–265 (2003).

Friedland, K.-J., M. Kästner, and L. Däweritz,
Ordinary Hall effect in MBE-grown MnAs films grown on GaAs(001) and GaAs(111)B,
Phys. Rev. B **67**, 113301, 4 pages (2003).

Ghosh, S., O. Brandt, H. T. Grahn, and K. H. Ploog,
Electronic band structure of strained *C*- and *M*-plane GaN films investigated by polarized
photoreflectance spectroscopy,
in *Proceedings of the 26th International Conference on the Physics of Semiconductors*, edited
by A. R. Long and J. H. Davies, IOP Conf. Ser. **171**, P3.pdf, 8 pages (2003).

Ghosh, S., P. Misra, O. Brandt, and H. T. Grahn,
Polarization-sensitive photo-detectors based on strained *M*-plane GaN,
in *Proceedings of the 29th International Symposium on Compound Semiconductors 2002*,
edited by M. Ilegems, G. Weimann, and J. Wagner, IOP Conf. Ser. **174**, 431–434 (2003).

Giehler, M., R. Hey, H. Kostial, S. Cronenberg, T. Ohtsuka, L. Schrottke, and H. T. Grahn,
Lasing properties of GaAs/(Al,Ga)As quantum-cascade lasers as a function of injector doping
density,
Appl. Phys. Lett. **82**, 671–673 (2003).

Giehler, M., R. Hey, H. Kostial, T. Ohtsuka, L. Schrottke, and H. T. Grahn,
Lasing properties of GaAs/(Al,Ga)As quantum cascade lasers as a function of injector doping
density,
in *Proceedings of the 29th International Symposium on Compound Semiconductors 2002*,
edited by M. Ilegems, G. Weimann, and J. Wagner, IOP Conf. Ser. **174**, 459–462 (2003).

Gutheim, F., H. Müller-Krumbhaar, E. Brenner, and V. Kaganer,
Thermal roughening of a solid-on-solid model with elastic interaction,
Phys. Rev. B **67**, 195404, 7 pages (2003).

Hatami, F., W. T. Masselink, L. Schrottke, J. W. Tomm, V. Talalaev, C. Kristukat, and
A. R. Goñi,
InP quantum dots embedded in GaP: Optical properties and carrier dynamics,
Phys. Rev. B **67**, 085306, 8 pages (2003).

Herfort, J., H.-P. Schönherr, and K. H. Ploog,
Epitaxial growth of Fe₃Si/GaAs(001) hybrid structures,
Appl. Phys. Lett. **83**, 3912–3914 (2003).

- Hesjedal, T.,
Nanoacoustics — High-frequency acoustic wave fields under the microscope,
in *Science, Technology and Education of Microscopy: An Overview*, edited by A. Mendez Vilas (Formatex, Badajoz, Spain, 2003), pp. 76–83.
- Hesjedal, T.,
Nanoacoustics — Probing acoustic waves on the nanoscale,
Proc. SPIE Int. Soc. Opt. Eng. **5045**, 13–27 (2003).
- Hesjedal, T., and W. Seidel,
Near-field elastomeric mask photolithography fabrication of high-frequency surface acoustic wave transducers,
Nanotechnol. **14**, 91–94 (2003).
- Hierro, A., J.-M. Ulloa, J.-M. Chauveau, A. Trampert, M.-A. Pinault, E. Tournié, A. Guzmán, J. L. Sánchez-Rojas, and E. Calleja,
Annealing effects on the crystal structure of GaInNAs quantum wells with large In and N content grown by molecular beam epitaxy,
J. Appl. Phys. **94**, 2319–2324 (2003).
- Iikawa, F., P. V. Santos, M. Kästner, F. Schippan, and L. Däweritz,
Elasto- and magneto-optical properties of epitaxial MnAs/GaAs heterostructures,
in *Proceedings of the 26th International Conference on the Physics of Semiconductors*, edited by A. R. Long and J. H. Davies, IOP Conf. Ser. **171**, H248.pdf, 7 pages (2003).
- Jahn, U., S. Dhar, O. Brandt, H. T. Grahn, K. H. Ploog, and I. M. Watson,
Exciton localization and quantum efficiency — A comparative cathodoluminescence study of (In,Ga)N/GaN and GaN/(Al,Ga)N quantum wells,
J. Appl. Phys. **93**, 1048–1053 (2003).
- Jahn, U., S. Dhar, H. Kostial, I. M. Watson, and K. Fujiwara,
Low-energy electron-beam irradiation of GaN-based quantum well structures,
Phys. Status Solidi C **0**, 2223–2226 (2003).
- Jenichen, B., W. Braun, V. M. Kaganer, A. G. Shtukenberg, L. Däweritz, C.-G. Schulz, K. H. Ploog, and A. Erko,
Combined molecular beam epitaxy and diffractometer system for *in situ* x-ray studies of crystal growth,
Rev. Sci. Instrum. **74**, 1267–1273 (2003).
- Jenichen, B., V. M. Kaganer, M. Kästner, C. Herrmann, L. Däweritz, K. H. Ploog, N. Darowski, and I. Zizak,
Structural and magnetic phase transition in MnAs(0001)/GaAs(111) epitaxial films,
Phys. Rev. B **68**, 132301, 4 pages (2003).
- Kaganer, V. M., W. Braun, B. Jenichen, L. Däweritz, and K. H. Ploog,
Two-dimensional coarsening kinetics of reconstruction domains: GaAs(001)- β (2 x 4),
Phys. Rev. Lett. **90**, 016101, 4 pages (2003).

Kawaharazuka, A., M. Ramsteiner, H. J. Zhu, H. Y. Hao, H. T. Grahn, M. Kästner, R. Hey, L. Däweritz, and K. H. Ploog,
Electrical spin injection from MnAs into GaAs,
in *Proceedings of the 26th International Conference on the Physics of Semiconductors*, edited by A. R. Long and J. H. Davies, IOP Conf. Ser. **171**, R3_5.pdf, 8 pages (2003).

Kim, H. J., T. G. Andersson, J.-M. Chauveau, and A. Trampert,
Arsenic incorporation and its influence on microstructure of wurtzite GaN grown by molecular-beam epitaxy,
J. Appl. Phys. **94**, 7193–7200 (2003).

Kleinert, P., and V. V. Bryksin,
A theoretical treatment of the subband population in the intersubband staircase laser,
IEEE J. Quantum Electron. **39**, 130–134 (2003).

Kleinert, P., and V. V. Bryksin,
Density matrix theory of population inversion in biased semiconductor superlattices,
Eur. Phys. J. B **31**, 489–494 (2003).

Kleinert, P., and V. V. Bryksin,
Microscopic stability analysis for homogeneous electric fields in superlattices under quantizing magnetic fields,
Physica B **334**, 413–424 (2003).

Kleinert, P., and V. V. Bryksin,
Unified quantum approach for the electric field-dependent drift velocity and the diffusion coefficient,
Phys. Lett. A **317**, 315–323 (2003).

Kleinert, P., L. Schrottke, H. T. Grahn, and V. V. Bryksin,
Field dependence of the carrier occupation in double-quantum-well superlattices,
Phys. Rev. B **67**, 195306, 10 pages (2003).

Knauer, A., P. Krispin, V. R. Balakrishnan, and M. Weyers,
Properties of (In,Ga)(As,P)/GaAs interfaces grown under different metalorganic vapor phase epitaxy conditions,
J. Cryst. Growth **248**, 364–368 (2003).

Krishnamurty, S., and P. V. Santos,
High-contrast optical modulation by surface acoustic waves,
Appl. Phys. Lett. **83**, 2548–2550 (2003).

Krispin, P., V. Gambin, J. S. Harris, and K. H. Ploog,
Compositional dependence of electron traps in Ga(As,N) grown by molecular-beam epitaxy,
in *Proceedings of the 29th International Symposium on Compound Semiconductors 2002*, edited by M. Ilegems, G. Weimann, and J. Wagner, IOP Conf. Ser. **174**, 101–104 (2003).

Krispin, P., V. Gambin, J. S. Harris, and K. H. Ploog,
Nitrogen-related electron traps in Ga(As,N) layers (<3% N),
J. Appl. Phys. **93**, 6095–6099 (2003).

Kunets, V. P., U. Müller, J. Dobbert, R. Pomraenke, G. G. Tarasov, W. T. Masselink, H. Kostial, H. Kissel, and Y. I. Mazur, Generation-recombination noise in doped-channel $\text{Al}_{0.3}\text{Ga}_{0.7}\text{As}/\text{GaAs}/\text{In}_{0.2}\text{Ga}_{0.8}\text{As}$ quantum well micro-Hall devices, *J. Appl. Phys.* **94**, 7590–7593 (2003).

Luna, E., A. Guzmán, J. L. Sánchez-Rojas, J. M. G. Tijero, R. Hey, J. Hernando, and E. Muñoz, Growth and characterization of modulation-doped double barrier quantum well infrared photodetectors, *J. Vac. Sci. Technol. B* **21**, 883–887 (2003).

Misra, P., Y. J. Sun, O. Brandt, and H. T. Grahn, Angular dependence of the in-plane polarization anisotropy in the absorption coefficient of strained *M*-plane GaN films on $\gamma\text{-LiAlO}_2$, *Phys. Status Solidi B* **240**, 293–296 (2003).

Misra, P., Y. J. Sun, O. Brandt, and H. T. Grahn, In-plane polarization anisotropy and polarization rotation for *M*-plane GaN films on LiAlO_2 , *Appl. Phys. Lett.* **83**, 4327–4329 (2003).

Mohanty, J., T. Hesjedal, A. Ney, Y. Takagaki, R. Koch, L. Däweritz, and K. H. Ploog, Effect of strain on the local phase transition temperature of $\text{MnAs}/\text{GaAs}(001)$, *Appl. Phys. Lett.* **83**, 2829–2831 (2003).

Mohanty, J., T. Hesjedal, T. Plake, M. Kästner, L. Däweritz, and K. H. Ploog, Variable-temperature micromagnetic study of epitaxially grown MnAs films on $\text{GaAs}(001)$, *Appl. Phys. A: Mater. Sci. Process.* **77**, 739–742 (2003).

Moore, G. P., J. Ferré, A. Mougin, M. Moreno, and L. Däweritz, Magnetic anisotropy and switching process in diluted $\text{Ga}_{1-x}\text{Mn}_x\text{As}$ magnetic semiconductor films, *J. Appl. Phys.* **94**, 4530–4534 (2003).

Moreno, M., B. Jenichen, V. Kaganer, W. Braun, A. Trampert, L. Däweritz, and K. H. Ploog, MnAs nanoclusters embedded in GaAs studied by x-ray diffuse and coherent scattering, *Phys. Rev. B* **67**, 235206, 8 pages (2003).

Mussler, G., L. Däweritz, and K. H. Ploog, Thickness dependent roughening of $\text{Ga}(\text{As},\text{N})/\text{GaAs}$ MQW structures with high nitrogen content, *J. Cryst. Growth* **251**, 399–402 (2003).

Mussler, G., L. Däweritz, K. H. Ploog, J. W. Tomm, and V. Talalev, Optimized annealing conditions identified by analysis of radiative recombination in dilute $\text{Ga}(\text{As},\text{N})$, *Appl. Phys. Lett.* **83**, 1343–1345 (2003).

Neumann, K.-U., K. R. A. Ziebeck, F. Jewiss, L. Däweritz, K. H. Ploog, and A. Murani, Magnetic correlations in the paramagnetic phases of MnAs, *Physica B* **335**, 34–36 (2003).

Ney, A., T. Hesjedal, C. Pampuch, J. Mohanty, A. K. Das, L. Däweritz, R. Koch, and K. H. Ploog, Magnetic out-of-plane component in MnAs/GaAs(001), *Appl. Phys. Lett.* **83**, 2850–2852 (2003).

Ney, A., C. Pampuch, R. Koch, and K. H. Ploog, Programmable computing with a single magnetoresistive element, *Nature* **425**, 485–487 (2003).

Ney, A., C. Pampuch, J. J. Schulz, L. Perepelittchenko, and R. Koch, Nanopatterned Si(001) substrates as templates for quantum dot growth, in *Self-Assembled Nanostructured Materials*, edited by Y.-F. Lu, C. J. Brinker, M. Antonietti, and C.-L. Bai, *Mater. Res. Soc. Proc. Vol. 775* (MRS, Pittsburgh, 2003), P9.17, 5 pages.

Ohno, H., K. Yoh, K. Sueoka, K. Mukasa, A. Kawaharazuka, and M. E. Ramsteiner, Spin-polarized electron injection through an Fe/InAs junction, *Jpn. J. Appl. Phys., Part 2* **42**, L87–L89 (2003).

Ohtsuka, T., L. Schrottke, R. Hey, H. Kostial, and H. T. Grahn, Investigation of carrier transport and carrier distribution in GaAs/(Al,Ga)As quantum-cascade structures, *J. Appl. Phys.* **94**, 2192–2198 (2003).

Ohtsuka, T., L. Schrottke, H. Kostial, R. Hey, and H. T. Grahn, Electrical and optical investigations of GaAs/(Al,Ga)As quantum-cascade-laser structures, *Physica E (Amsterdam)* **17**, 623–625 (2003).

Pampuch, C., A. K. Das, A. Ney, L. Däweritz, R. Koch, and K. H. Ploog, Magnetologic with α -MnAs thin films, *Phys. Rev. Lett.* **91**, 147203, 4 pages (2003).

Plake, T., T. Hesjedal, J. Mohanty, M. Kästner, L. Däweritz, and K. H. Ploog, Temperature-dependent magnetic force microscopy investigation of epitaxial MnAs films on GaAs(001), *Appl. Phys. Lett.* **82**, 2308–2310 (2003).

Ploog, K. H., S. Dhar, and A. Trampert, Structural and magnetic properties of (Ga,Mn)N layers grown on SiC by reactive molecular beam epitaxy, *J. Vac. Sci. Technol. B* **21**, 1756–1759 (2003).

Ploog, K. H., J. Herfort, H.-P. Schönherr, M. Moreno, and S. Dhar, Growth and properties of ferromagnet-semiconductor heterostructures for spin injection at room temperature, *J. Cryst. Growth* **251**, 292–296 (2003).

Ramsteiner, M.,

Electrical spin injection from ferromagnetic metals into GaAs,
J. Supercond. **16**, 661–667 (2003).

Rieder, K. H., G. Meyer, K. F. Braun, S. W. Hla, F. Moresco, K. Morgenstern, J. Repp,
S. Fölsch, and L. Bartels,
STM as an operative tool: Physics and chemistry with single atoms and molecules,
Europhys. News **34**, 95–98 (2003).

Ristić, J., E. Calleja, M. A. Sánchez-García, J. M. Ulloa, J. Sánchez-Páramo, J. M. Calleja,
U. Jahn, A. Trampert, and K. H. Ploog,
Characterization of GaN quantum discs embedded in $\text{Al}_x\text{Ga}_{1-x}\text{N}$ nanocolumns grown by
molecular beam epitaxy,
Phys. Rev. B **68**, 125305, 5 pages (2003).

Santos, P., S. K. Zhang, F. Alsina, H.-P. Schönherr, R. Nötzel, R. Hey, and K. H. Ploog,
Ambipolar carrier transport by surface acoustic waves in GaAs quantum wells and quantum
wires,
in *Proceedings of the 26th International Conference on the Physics of Semiconductors*, edited
by A. R. Long and J. H. Davies, IOP Conf. Ser. **171**, C3_7.pdf, 8 pages (2003).

Schönherr, H.-P., J. Herfort, M. Ramsteiner, H. J. Zhu, and K. H. Ploog,
Growth and properties of Fe/GaAs(001) heterostructures for tunneling assisted spin injection
at room temperature,
in *Towards the controllable quantum states (Proceedings of the International Symposium on
Mesoscopic Superconductivity and Spintronics 2002)*, edited by H. Takayanagi and J. Nitta
(World Scientific, Singapore, 2003), pp. 10–16.

Shlimak, I., V. Ginodman, M. Levin, M. Potemski, D. K. Maude, K.-J. Friedland, and
D. J. Paul,
Longitudinal conductivity in Si/SiGe heterostructures at integer filling factors,
Phys. Rev. B **68**, 075321, 5 pages (2003).

Sun, Y. J., O. Brandt, S. Cronenberg, S. Dhar, H. T. Grahn, K. H. Ploog, P. Waltereit, and
J. S. Speck,
Nonpolar $\text{In}_x\text{Ga}_{1-x}\text{N}/\text{GaN}(1\bar{1}00)$ multiple quantum wells grown on $\gamma\text{-LiAlO}_2(100)$ by
plasma-assisted molecular-beam epitaxy [Erratum: *Phys. Rev. B* **69**, 129902(E) (2004)],
Phys. Rev. B **67**, 041306(R), 4 pages (2003).

Sun, Y. J., O. Brandt, S. Cronenberg, H. T. Grahn, and K. H. Ploog,
Impact of exciton localization on the optical properties of non-polar M-plane $\text{In}_{0.1}\text{Ga}_{0.9}\text{N}/\text{GaN}$
multiple quantum wells,
Phys. Status Solidi B **240**, 360–363 (2003).

Sun, Y. J., O. Brandt, B. Jenichen, and K. H. Ploog,
In surface segregation in M-plane $(\text{In,Ga})\text{N}/\text{GaN}$ multiple quantum well structures,
Appl. Phys. Lett. **83**, 5178–5180 (2003).

- Sun, Y. J., O. Brandt, and K. H. Ploog,
Growth of *M*-plane GaN films on γ -LiAlO₂(100) with high phase purity,
J. Vac. Sci. Technol. B **21**, 1350–1356 (2003).
- Sun, Y. J., O. Brandt, and K. H. Ploog,
Photoluminescence intensity of GaN films with widely varying dislocation density,
J. Mater. Res. **18**, 1247–1250 (2003).
- Sun, Y. J., O. Brandt, M. Ramsteiner, H. T. Grahn, and K. H. Ploog,
Polarization anisotropy of photoluminescence of *M*-Plane (In,Ga)N/GaN multiple quantum wells,
Appl. Phys. Lett. **82**, 3850–3852 (2003).
- Tagliente, M. A., L. Tapfer, P. Waltereit, O. Brandt, and K. H. Ploog,
Structural properties of In_xGa_{1-x}N/GaN and Al_xGa_{1-x}N/GaN MQWs studied by XRD,
J. Phys. D **36**, A192–A197 (2003).
- Takagaki, Y., O. Brandt, and K. H. Ploog,
Surface-acoustic-wave delay line at 24 GHz using a guided Rayleigh mode in AlN/SiC structures,
Jpn. J. Appl. Phys., Part 1 **42**, 1594–1595 (2003).
- Takagaki, Y., and K. H. Ploog,
Electronic coupling in linear arrays of quantum cavities characterized using conductance fluctuations,
Phys. Rev. B **67**, 195323, 7 pages (2003).
- Takagaki, Y., M. Ramsteiner, and K. H. Ploog,
Guiding characteristics of surface acoustic waves visualized using photoluminescence quenching,
J. Appl. Phys. **93**, 9675–9678 (2003).
- Takagaki, Y., P. V. Santos, E. Wiebicke, O. Brandt, H.-P. Schönherr, and K. H. Ploog,
Guided surface-acoustic-wave modes in AlN layers grown on SiC substrates,
in *Proceedings of the 29th International Symposium on Compound Semiconductors 2002*,
edited by M. Ilegems, G. Weimann, and J. Wagner, IOP Conf. Ser. **174**, 73–76 (2003).
- Takagaki, Y., E. Wiebicke, T. Hesjedal, H. Kostial, C. Hermann, L. Däweritz, and K. H. Ploog,
Self-organized etching technique for fabricating a quasi-regular array of MnAs nano-islands,
Appl. Phys. Lett. **83**, 2895–2897 (2003).
- Takagaki, Y., E. Wiebicke, M. Ramsteiner, L. Däweritz, and K. H. Ploog,
Spontaneous growth of arsenic oxide micro-crystals on chemically etched MnAs surfaces,
Appl. Phys. A: Mater. Sci. Process. **76**, 837–840 (2003).
- Takagaki, Y., E. Wiebicke, A. Riedel, M. Ramsteiner, H. Kostial, R. Hey, and K. H. Ploog,
Hybrid optical modulator based on surface acoustic waves fabricated using imprint lithography and the epitaxial lift-off technique,
Semicond. Sci. Technol. **18**, 807–811 (2003).

- Tibebu Kassa, S., R. Hey, and K. H. Ploog,
Si doping for *n*- and *p*-type conduction in $\text{Al}_x\text{Ga}_{1-x}\text{As}$ grown on GaAs(311)A by
molecular-beam epitaxy,
J. Appl. Phys. **93**, 2638–2642 (2003).
- Tournié, E., M.-A. Pinault, M. Laügt, J.-M. Chauveau, A. Trampert, and K. H. Ploog,
GaInNAs/GaAs quantum wells grown by molecular-beam epitaxy emitting above 1.5 μm ,
Appl. Phys. Lett. **82**, 1845–1847 (2003).
- Ulrici, W., B. Clerjaud, and D. Côte,
Hydrogen passivation of the Si_{Ga} donor in GaP,
Phys. Status Solidi B **235**, 102–106 (2003).
- Ulrici, W., and M. Jurisch,
Vibrational modes of a di-hydrogen complex in GaAs,
Physica B **340–342**, 288–292 (2003).
- van der Meulen, H. P., J. M. Calleja, J. Sánchez-Páramo, R. Hey, K.-J. Friedland, and
K. H. Ploog,
Screening properties of a two-dimensional electron gas around integer filling factors,
in *Proceedings of the 26th International Conference on the Physics of Semiconductors*, edited
by A. R. Long and J. H. Davies, IOP Conf. Ser. **171**, D89.pdf, 7 pages (2003).
- Yang, J., Q. Cai, X.-D. Wang, and R. Koch,
Initial stages of erbium disilicide formation on Si(001),
Surf. Sci. **526**, 291–296 (2003).
- Yang, J., P. U. Voigt, and R. Koch,
Nanoscale investigation of longitudinal surface acoustic waves,
Appl. Phys. Lett. **82**, 1866–1868 (2003).