

A2.8 (Kalt / Hetterich)

- [A2.8:1] * D. Litvinov, D. Gerthsen, A. Rosenauer, M. Schowalter, T. Passow, P. Feinäugle, and M. Hetterich, *Transmission electron microscopy investigation of segregation and critical floating-layer content of indium for island formation in $In_xGa_{1-x}As$* , Phys. Rev. B **74**, 165306 (2006)
- [A2.8:2] * D. Litvinov, D. Gerthsen, A. Rosenauer, T. Passow, M. Grün, C. Klingshirn, and M. Hetterich, *In distribution in $InGaAs$ quantum wells and quantum islands*, Microscopy of Semiconducting Materials, Proc. 14th conference (MSM XIV), Oxford, UK, 2005, Springer Proceedings in Physics **107**, 275, Eds.: A.G. Cullis, J.L. Hutchison (2006)
- [A2.8:3] * J. Brückner, J. Silbereisen, D. Daub, U. Geyer, G. Bastian, B. Daniel, and M. Hetterich, *Optical and acoustical ridge waveguides based on piezoelectric semiconductors for novel integrated acoustooptic components*, Proc. Photonics Europe 2006, Integrated Optics, Silicon Photonics, and Photonic Integrated Circuits, G.C. Righini (Ed.), Proc. SPIE **6183**, 618309 (2006)
- [A2.8:4] * T. Passow, S. Li, D. Litvinov, W. Löffler, J. Fallert, B. Daniel, J. Lupaca-Schomber, J. Kvietková, D. Gerthsen, H. Kalt, and M. Hetterich, *Investigation of $InAs$ quantum dot growth for electrical spin injection devices*, 4th Int. Conf. on Quantum Dots (QD2006), Chamonix-Mont Blanc, France, phys. stat. sol. (c) **3**, 3943 (2006)
- [A2.8:5] * F.M. Weber, M. Karl, J. Lupaca-Schomber, W. Löffler, S. Li, T. Passow, J. Hawecker, D. Gerthsen, H. Kalt, and M. Hetterich, *Optical modes in pyramidal $GaAs$ microcavities*, Appl. Phys. Lett. **90**, 161104 (2007); featured in: Nature Photonics **1**, 317 (2007), News & Views
- [A2.8:6] * T. Passow, S. Li, P. Feinäugle, T. Vallaitis, J. Leuthold, D. Litvinov, D. Gerthsen, and M. Hetterich, *Systematic investigation into the influence of growth conditions on $InAs/GaAs$ quantum dot properties*, J. Appl. Phys. **102**, 073511 (2007)
- [A2.8:7] * M. Karl, S. Li, T. Passow, W. Löffler, H. Kalt, and M. Hetterich, *Localized and delocalized modes in coupled optical micropillar cavities*, Optics Express **15**, 8191 (2007)
- [A2.8:8] * D. Litvinov, D. Gerthsen, A. Rosenauer, M. Schowalter, T. Passow, and M. Hetterich, *The role of segregation in $InGaAs$ heteroepitaxy*, THERMEC' 2006 (Int. Conf. on Processing & Manufacturing of Advanced Materials), Vancouver, Canada, 2006, Mat. Sci. Forum **539–543**, 3540 (2007)
- [A2.8:9] * M. Karl, W. Löffler, J. Lupaca-Schomber, T. Passow, S. Li, J. Hawecker, F. Pérez-Willard, D. Gerthsen, H. Kalt, C. Klingshirn, and M. Hetterich, *Single and coupled microcavities – $AlAs/GaAs$ DBR pillars and $GaAs$ pyramids*, Proc. 28th Int. Conf. on the Physics of Semiconductors, Vienna, Austria, 2006, AIP Conf. Proc. **893**, 1133 (2007)
- [A2.8:10] * M. Karl, T. Beck, S. Li, H. Kalt, and M. Hetterich, *Q-factor and density of optical modes in pyramidal and cone-shaped $GaAs$ microcavities*, Appl. Phys. Lett. **92**, 231105 (2008)
- [A2.8:11] * D. Litvinov, H. Blank, R. Schneider, D. Gerthsen, T. Vallaitis, J. Leuthold, T. Passow, A. Grau, H. Kalt, C. Klingshirn, and M. Hetterich, *Influence of $InGaAs$ cap layers with different In concentration on the properties of $InGaAs$ quantum dots*, J. Appl. Phys. **103**, 083532 (2008)
- [A2.8:12] * M. Karl, F.M. Weber, J. Lupaca-Schomber, S. Li, T. Passow, W. Löffler, H. Kalt, and M. Hetterich, *GaAs pyramids on GaAs/AlAs Bragg reflectors as alternative microcavities*, 7th Int. Conf. on the Physics of Light-Matter Coupling in

Nanostructures (PLMCN7), Havana, Cuba, 2007, Superlattices and Microstructures **43**, 635 (2008)

- [A2.8:13] * D. Litvinov, M. Schowalter, A. Rosenauer, B. Daniel, J. Fallert, W. Löffler, H. Kalt, and M. Hetterich, *Determination of critical thickness for defect formation of CdSe / ZnSe heterostructures by transmission electron microscopy and photoluminescence spectroscopy*, phys. stat. sol. (a) **205**, 2892 (2008)
- [A2.8:14] ‡ M.F. Saenger, M. Hetterich, T. Hofmann, R.D. Kirby, D.J. Sellmyer, and M. Schubert, *Dielectric and magnetic birefringence in low-chlorine-doped n-type Zn_{1-x}Mn_xSe*, 4th Int. Conf. on Spectroscopic Ellipsometry (ICSE 4), Stockholm, Sweden, 2007, phys. stat. sol. (c) **5**, 1007 (2008)
- [A2.8:15] * M. Karl, B. Kettner, S. Burger, F. Schmidt, H. Kalt, and M. Hetterich, *Dependencies of micro-pillar cavity quality factors calculated with finite element methods*, Optics Express **17**, 1144 (2009)
- [A2.8:16] * M. Karl, D. Rülke, T. Beck, D.Z. Hu, D.M. Schaadt, H. Kalt, and M. Hetterich, *Reversed pyramids as novel optical micro-cavities*, 9th Int. Conf. on the Physics of Light-Matter Coupling in Nanostructures (PLMCN9), Lecce, Italy, 2009, Superlattices and Microstructures **47**, 83 (2010)
- [A2.8:17] * M. Karl, T. Beck, S. Li, D.Z. Hu, D.M. Schaadt, H. Kalt, and M. Hetterich, *GaAs micro-pyramids serving as optical micro-cavities*, 29th Int. Conf. on the Physics of Semiconductors (ICPS), Rio de Janeiro, Brazil, 2008, AIP Conf. Proc. **1199**, 369 (2010)
- [A2.8:18] * D. Gerthsen, H. Blank, D. Litvinov, R. Schneider, A. Rosenauer, T. Passow, A. Grau, P. Feinäugle, H. Kalt, C. Klingshirn, and M. Hetterich, *On the incorporation of indium in InAs-based quantum structures*, Microscopy of Semiconducting Materials (MSM XVI), Oxford, UK, 2009, J. Phys.: Conf. Ser. **209**, 012006 (2010)
- [A2.8:19] * D. Rülke, M. Karl, D.Z. Hu, D.M. Schaadt, H. Kalt, and M. Hetterich, *Optical microcavities fabricated by DBR overgrowth of pyramidal-shaped GaAs mesas*, J. Crystal Growth **342**, 259 (2011)
- [A2.8:20] * D. Ruelke, D.M. Schaadt, H. Kalt, and M. Hetterich, *Efficient single-photon extraction from quantum-dots embedded in GaAs micro-pyramids*, Appl. Phys. Lett. **100**, 251101 (2012)

Invited Talks at International Conferences

D. Litvinov, D. Gerthsen, A. Rosenauer, M. Schowalter, T. Passow, and M. Hetterich, *The role of segregation in InGaAs heteroepitaxy*, THERMEC' 2006 (Int. Conf. on Processing & Manufacturing of Advanced Materials), Vancouver, Canada, 2006

M. Hetterich, *Pyramidal and pillar-type optical cavities*, Symposium Nano Optics, Konrad-Zuse-Zentrum für Informationstechnik (ZIB), Berlin (Germany), 2006

W. Löffler, M. Hetterich, and H. Kalt, *Quanteninformationsverarbeitung mit Halbleiterquantenpunkten und Cavities*, Symposium Nano Optics, Konrad-Zuse-Zentrum für Informationstechnik (ZIB), Berlin, (Germany), 2006

D. Litvinov, D. Gerthsen, T. Vallaitis, T. Passow, A. Grau, and M. Hetterich, *Influence of InGaAs cap layers with different In-concentrations on the structure and properties of InAs/GaAs quantum dot layers*, Microscopy Conference (MC 2007), 33rd Conference of the DGE (Deutsche Gesellschaft für Elektronenmikroskopie), Saarbrücken, Germany, 2007

D. Gerthsen, H. Blank, D. Litvinov, R. Schneider, A. Rosenauer, T. Passow, A. Grau, P. Feinäugle, H. Kalt, C. Klingshirn, and M. Hetterich, *On the incorporation of indium in InAs-*

based quantum structures, Microscopy of Semiconducting Materials (MSM XVI), Oxford, UK, 2009

D. Rülke, M. Hetterich, D.Z. Hu, D.M. Schaad, and H. Kalt, *GaAs microresonators for quantum optical and cavity quantum electrodynamic applications*, Matheon-Workshop *Photonic Devices*, Freie Universität Berlin, Feb. 2010