

# List of Publications

## Scientific Reports (including manuscripts under preparation)

1. H. Protzmann, T. Marschner, O. Zsebök, W. Stolz, E.O. Göbel, R. Dorn, J. Lorberth  
*Hydride Group - III-Precursors for the Metalorganic Vapour Phase Epitaxy (MOVPE) of (AlGa)As/GaAs-Heterostructures*  
Journal of Crystal Growth **115** (1991) 248-253.
2. G. Zimmermann, H. Protzmann, T. Marschner, O. Zsebök, W. Stolz, E.O. Göbel  
P. Gimmnich, J. Lorberth, T. Filz, P. Kurpas and W. Richter  
*Amino-arsine- and -phosphine-compounds for the MOVPE of III/V-semiconductors*  
Journal of Crystal Growth **129** (1993) 37-44.
3. H. Protzmann, T. Marschner, O. Zsebök, W. Stolz, E.O. Göbel, R. Dorn, J. Lorberth  
*Hydride Group - III-Precursors for the Metalorganic Vapour Phase Epitaxy (MOVPE) of (AlGa)As/GaAs-Heterostructures*  
Proc. 7th Int. Conf. on VAPOUR GROWTH AND EPITAXY, Nagoya (Japan), 1991.
4. J. Lorberth, R. Dorn, S. Wocaldo, W. Massa, E.O. Göbel, T. Marschner, H. Protzmann, O. Zsebök, W. Stolz,  
*Synthesis of gallane gmine adducts as potential precursors for GaAs and (AlGa)As MOVPE processes and the crystal-structure of the (gallane-1,3-bis(dimethylamino)propane adduct  $H_3Ga-N(CH_3)_2(CH_2)_3N(CH_3)_2$*   
Advanced Materials **4** (1992) 576-579.
5. J.H. Roslund, O. Zsebök, G. Swenson and T.G. Andersson  
*Molecular Beam Epitaxial Growth of  $Ga_{1-x}In_xSb$  on GaAs Substrates*  
J. Crystal Growth **175/176** (1997) 883-887.
6. J.V. Thordson, O. Zsebök, U. Södervall and T.G. Andersson  
*Surface Morphology and Structure of  $GaN_xAs_{1-x}$*   
Journal of MRS Nitride Semiconductor Research **2** (1997) 8.
7. J.V. Thordson, O. Zsebök, U. Södervall and T.G. Andersson  
*Molecular Beam Epitaxy Growth and Characterisation of  $GaN_xAs_{1-x}$*   
ECASIA '97, Proceedings of the 7th European Conference on Application of Surface and Interface Analysis, John Wiley & Sons Publishing, 1997.
8. T.G. Andersson, J.V. Thordson and O. Zsebök  
*Surface of GaN and GaAsN grown by MBE*  
ECASIA '97, 7th European Conference on Application of Surface and Interface Analysis, John Wiley & Sons Publishing, 1997.
9. O. Zsebök, J.V. Thordson and T.G. Andersson  
*Surface morphology of MBE-grown GaN on GaAs(001) as function of the N/Ga-ratio*  
Proceedings of the Third European GaN Workshop, Jadwisin, Poland, June 22-24, 1998.
10. O. Zsebök, J.V. Thordson and T.G. Andersson  
*Surface morphology of MBE-grown GaN on GaAs(001) as function of the N/Ga-ratio*  
Journal of MRS Nitride Semiconductor Research **3** (1998) 14.
11. J.V. Thordson, O. Zsebök, U. Södervall and T.G. Andersson  
*Molecular Beam Epitaxy Growth and Characterisation of  $GaN_xAs_{1-x}$  layers*  
Materials Science Forum **264-268** (1998) 1185-8.
12. O. Zsebök  
*Epitaxial Growth, Processing and Characterisation of III-V Semiconductor Micro- and Nanostructures*  
Chalmersbibliotekets Reproservice, Göteborg, 1998.

13.  
J.V. Thordson, O. Zsebök and T.G. Andersson  
*Surface Reconstruction and Surface Morphology of GaN Grown by MBE on GaAs (001)*  
Physica Scripta, Vol. **T79** (1999) 198-201.
14.  
O. Zsebök, J.V. Thordson, L. Ilver, U. Södervall and T.G. Andersson  
*Characterisation of Surface Morphological Defects in MBE-grown GaN<sub>0.1</sub>As<sub>0.9</sub> Layers on GaAs*  
Formation of Semiconductor Interfaces, Edited by: Janusz Kanski, Per-Olof Nilsson, North Holland, 1999.
15.  
O. Zsebök, J.V. Thordson, Q.X. Zhao and T.G. Andersson  
*Influence of N/Ga-flux ratio on Optical Properties and Surface Morphology of GaN Grown on Sapphire(0001) by MBE*  
Formation of Semiconductor Interfaces, Edited by: Janusz Kanski, Per-Olof Nilsson, North Holland, 1999.
16.  
O. Zsebök, J.V. Thordson, L. Ilver and T.G. Andersson  
*Nanocrystals at MBE-Grown GaN/GaAs(001) Interfaces*  
Formation of Semiconductor Interfaces, Edited by: Janusz Kanski, Per-Olof Nilsson, North Holland, 1999.
17.  
O. Zsebök, J.V. Thordson, B. Nilsson and T.G. Andersson  
*Morphology of InGaAs/GaAs Quantum Wires Prepared by Highly Controlled Deep Etching Techniques*  
Nanotechnology **12** (2001) 32-37.
18.  
O. Zsebök, J.V. Thordson, L. Ilver and T.G. Andersson  
*Surface Morphology and Compositional Variations in Molecular Beam Epitaxy Grown GaN<sub>x</sub>As<sub>1-x</sub> Alloys*  
Nanostructured Materials **12** (1999) 425-428.
19.  
Q.X. Zhao, O. Zsebök, U. Södervall, M. Karlsteen and M. Willander, X.Q. Liu, Y.D. Chen, W. Lu and S.C. Shen  
*GaAs film deposited on SrTiO<sub>3</sub> substrate by molecular beam epitaxy*  
Journal of Crystal Growth **208** (2000) 117-122.
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O. Zsebök, J.V. Thordson, L. Ilver, U. Södervall and T.G. Andersson  
*Characterisation of Surface Morphological Defects in MBE-grown GaN<sub>0.1</sub>As<sub>0.9</sub> Layers on GaAs*  
Applied Surface Science **166** (2000) 259-262.
21.  
O. Zsebök, J.V. Thordson, Q.X. Zhao and T.G. Andersson  
*Influence of N/Ga-flux ratio on Optical Properties and Surface Morphology of GaN Grown on Sapphire(0001) by MBE*  
Applied Surface Science **166** (2000) 423-427.
22.  
O. Zsebök, J.V. Thordson, L. Ilver and T.G. Andersson  
*Nanocrystals at MBE-Grown GaN/GaAs(001) Interfaces*  
Applied Surface Science **166** (2000) 317-321.
23.  
O. Zsebök, J.V. Thordson, Q.X. Zhao, U. Södervall, G. Swenson and T.G. Andersson  
*The effect of Al in plasma-assisted MBE-grown GaN*  
MRS Journal of Nitride Semiconductor Research (in press)  
MRS Internet Journal of Nitride Semiconductor Research, **5S1** (2000) W3.36.
24.  
O. Zsebök, K.K.M.N. Gurusinge, J.V. Thordson, Q.X. Zhao, G. Swenson, and T.G. Andersson  
*GaN Grown on GaAs and Sapphire Substrates by MBE*  
Proceedings of the GHz2000 Symposium on Gigahertz Electronics, 2000.
25.  
O. Zsebök  
*Molecular Beam Epitaxy and Characterisation of GaN-compounds on GaAs(001) and Sapphire(0001)*  
Chalmersbibliotekets Reproservice, Göteborg, ISBN 91-7197-931-x, 2000.
26.  
O. Zsebök, J.H. Gunnarsson, J.V. Thordson and T.G. Andersson  
*The use of RHEED to minimise the nitridation damage when growing GaN on GaAs by MBE*  
TATF' 2000 Proceedings on Trends and Applications of Thin Films.
27.  
O. Zsebök, J.V. Thordson, R. Gunnarsson, L. Ilver and T.G. Andersson  
*The effect of the first GaN monolayer on the nitridation damage of MBE-grown GaN on GaAs(001)*  
Journal of Applied Physics **89** (2001) 3662-3666.

28. O. Zsebök, J.V. Thordson, Q.X. Zhao, and T.G. Andersson  
*The effects of small amounts of Al in GaN grown on sapphire(0001) by molecular beam epitaxy*  
Journal of Applied Physics **89** (2001) 1954-1958.
29. O. Zsebök, J.V. Thordson, and T.G. Andersson  
*The formation of nitrogen damage during the growth of GaN on GaAs(001)*  
Japanese Journal of Applied Physics Part 1, **40** (2001) 472-475.
30. J.H. Yang and O. Zsebök  
*Effects of buffer layer and nitrogen purification on optical properties of MBE-grown GaN on sapphire(0001)*  
Thin Solid Films, **466(1-2)**:21-26 (November 1, 2004).
31. J.H. Yang, J. Gong, L.L. Yang, H.G. Fan, Y.J. Zhang, O. Zsebök, and G. Chen  
*Effects of AlN layer and impurities on optical properties of GaN*  
Chemical Research in Chinese Universities, **21(1)** 78-82 (January 2005).
32. O. Zsebök  
*Anyagtudomány és technológia*  
Egyetemi jegyzet (2007), elektronikus
33. O. Zsebök  
*Fejezetek a nanoelektronikából*  
Egyetemi jegyzet (2008), elektronikus
34. O. Zsebök  
*Fejezetek a nanoelektronika mikrofizikájából*  
Egyetemi jegyzet (2009), elektronikus
35. B. Szórádi, O. Zsebök,  
*LED fényforrások fénymegtartása, várható élettartamának vizsgálata*  
LED Konferencia, MEE Világítástechnikai Társaság, Budapest, February 23-24, 2010
36. O. Zsebök,  
*Multifunctional system for sports and leisure complex in Hungary*  
LEGIC News Magazine **1/11** (2011) 12-13.
37. O. Zsebök,  
*Multifunktionales System für Sport- und Freizeitkomplex in Ungarn*  
LEGIC News Magazine **1/11** (2011) 12-13.
38. O. Zsebök,  
*Anyagtudomány és technológia (Fejezetek a vegyület-félvezetőkben és a félvezetők technológiáiból)*  
Széchenyi István Egyetem, 2013 (ISBN 978.615-5391-01-9)
39. O. Zsebök, L-Å. Sidenberg and T.G. Andersson  
*Scanning Photoluminescence System for Low Temperature Mapping of Semiconductor Quantum Structures*  
(manuscript)
40. O. Zsebök, B. Nilsson, V. Thordson and T.G. Andersson  
*Processing and Morphological Characterisation of Deep Etched InGaAs/GaAs Semiconductor Quantum Wires down to 10 nm Width*  
(manuscript)
41. O. Zsebök, J.V. Thordson, Q.X. Zhao and T.G. Andersson  
*Effects of buffer layer and nitrogen purification on optical properties of MBE-grown GaN on sapphire(0001)*  
(manuscript)
42. O. Zsebök, J.H. Roslund and T.G. Andersson  
*Selective Wet Chemical Etching of MBE Grown Ga<sub>1-x</sub>In<sub>x</sub>Sb on GaAs Substrates*  
(manuscript)

43. O. Zsebök, J.V. Thordson, Q.X. Zhao, G. Swenson, and T.G. Andersson  
*The effect on optical, electrical and morphological properties of MBE-grown GaN due to the addition of indium*  
(manuscript)
44. J.H. Roslund, O. Zsebök, G. Swenson and T.G. Andersson  
*Optimum growth conditions for Ga<sub>1-x</sub>In<sub>x</sub>Sb in molecular beam epitaxy*  
(manuscript)

## List of Presentations at Conferences

1. H. Protzmann, T. Marschner, O. Zsebök, W. Stolz, E.O. Göbel, R. Dorn, J. Lorberth  
*Hydride Group - III-Precursors for the MOVPE of (AlGa)As/GaAs-Heterostructures*  
FOURTH EUROPEAN WORKSHOP ON METALORGANIC VAPOUR PHASE EPITAXY,  
Nijmegen, The Netherlands, 5-7 June 1991.
2. H. Protzmann, T. Marschner, O. Zsebök, W. Stolz, E.O. Göbel, R. Dorn, J. Lorberth  
*Alternative III-Verbindungen vom Typ (MH<sub>3</sub> \* NR<sub>3</sub>) für die MOVPE von Al<sub>x</sub>Ga<sub>1-x</sub>As/GaAs Heterostrukturen*  
55. PHYSIKERTAGUNG UND FRÜHJAHRSTAGUNG des Arbeitskreises Festkörperphysik bei der Deutschen  
Physikalischen Gesellschaft, Münster, 8-12 April 1991.
3. J.H. Roslund, O. Zsebök, G. Swenson and T.G. Andersson  
*Molecular Beam Epitaxial Growth of Ga<sub>1-x</sub>In<sub>x</sub>Sb on GaAs Substrates*  
Ninth International Conference on Molecular Beam Epitaxy, Malibu, California, August 5-9, 1996.
4. O. Zsebök, G. Harsányi  
*Hybrid Optical Waveguides by Thich-Film Microelectronical Technologies*  
ISMEC, Zagreb, Yugoslavia, 1989.
5. O. Zsebök, B. Nilsson, J.V. Thordson, T.G. Andersson  
*Towards 10 nm Semiconductor Quantum Wires*  
Mesoscopic Days Göteborg, Sweden, 14-15 September 1995.
6. P. Grossmann, J. Feldmann, O. Zsebök, W. Stolz, E.O. Göbel, K. Ploog  
*Transiente Gitterexperimente zur Untersuchung der Elektron-Loch-Separation in einem elektrischen Feld*  
55. PHYSIKERTAGUNG UND FRÜHJAHRSTAGUNG des Arbeitskreises Festkörperphysik bei der Deutschen  
Physikalischen Gesellschaft, Regensburg, 16-20 März 1992.
7. G. Zimmermann, H. Protzmann, T. Marschner, O. Zsebök, W. Stolz, E.O. Göbel  
P. Gimmnich, J. Lorberth  
*Amino-Arsine- and -Phosphine-Compounds for the MOVPE of III/V-Semiconductors*  
WORKSHOP ON METALORGANIC VAPOUR PHASE EPITAXY, Boston, USA, 6-11 July 1992.
8. O. Zsebök, B. Nilsson, J.V. Thordson and T.G. Andersson  
*Semiconductor Quantum Wires down to 10 nm Width*  
Ninth Chalmers Postgraduate Conference on Material Science, Göteborg, Sweden, 15 May 1996.
9. Semiconductor Physics and Heterostructures  
O. Zsebök, B. Nilsson, J.V. Thordson and T.G. Andersson:  
*10 nm Semiconductor Quantum Wires*  
NUTEK Programme Conference for Microelectronics, Göteborg, 29-30 January 1996.
10. J.V. Thordson, O. Zsebök, U. Södervall and T.G. Andersson  
*Molecular Beam Epitaxy Growth and Characterisation of GaN<sub>x</sub>As<sub>1-x</sub>*  
ECASIA '97, 7th European Conference on Application of Surface and Interface Analysis, Göteborg, Sweden, 16-20  
June 1997.

11. T.G. Andersson, J.V. Thordson and O. Zsebök  
*Surface of GaN and GaAsN grown by MBE*  
ECASIA '97, 7th European Conference on Application of Surface and Interface Analysis, Göteborg, Sweden, 16-20 June 1997.
12. J.V. Thordson, O. Zsebök, U. Södervall and T.G. Andersson  
*Surface Morphology and Structure of GaN<sub>x</sub>As<sub>1-x</sub>, x=0-1*  
2nd European GaN Workshop (EGW2), Valbonne Sophia Antipolis, France, 11-13 June 1997.
13. J.V. Thordson, O. Zsebök, U. Södervall and T.G. Andersson  
*Molecular Beam Epitaxy Growth and Characterisation of GaN<sub>x</sub>As<sub>1-x</sub> Layers*  
ICSC III-N'97, International Conference on SiC and Group-III-Nitrides, Stockholm, Sweden, 31 Aug.-5 Sept. 1997.
14. O. Zsebök, J.V. Thordson, U. Södervall and T.G. Andersson  
*Surface Morphology and Compositional Variations in Molecular Beam Epitaxy Grown GaN<sub>x</sub>As<sub>1-x</sub> Alloys*  
NANO '98, Fourth International Conference on Nanostructured Materials, Stockholm, Sweden, June 14-19, 1998
15. O. Zsebök, J.V. Thordson and T.G. Andersson  
*Surface morphology of MBE-grown GaN on GaAs(001) as function of the N/Ga-ratio*  
EGW-3, The Third European GaN Workshop, Jadwisin, Poland, June 22-24, 1998.
16. J.V. Thordson, O. Zsebök and T.G. Andersson  
*Surface Reconstruction and Surface Morphology of GaN Grown by MBE on GaAs (001)*  
18th Nordic Semiconductor Meeting, Linköping, Sweden, June 7-10, 1998.
17. O. Zsebök, J.V. Thordson, B. Nilsson and T.G. Andersson  
*Morphology of InGaAs/GaAs Quantum Wires Prepared by Highly Controlled Deep Etching Techniques*  
ANV'98, Advanced Nanomaterials from Vapours, Uppsala, Sweden, June 26, 1998.
18. O. Zsebök, J.V. Thordson, L. Ilver, U. Södervall and T.G. Andersson  
*Characterisation of Surface Morphology and Phase Separation in Molecular Beam Epitaxy Grown GaN<sub>x</sub>As<sub>1-x</sub> Layers*  
ICFSI-7, 7th International Conference on the Formation of Semiconductor Interfaces  
Göteborg, Sweden, June 21-25, 1999.
19. O. Zsebök, J.V. Thordson, Q.X. Zhao and T.G. Andersson  
*Influence of N/Ga-flux ratio on Optical Properties and Surface Morphology of GaN Grown on Sapphire(0001) by MBE*  
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20. O. Zsebök, J.V. Thordson, Q.X. Zhao, U. Södervall, G. Swenson and T.G. Andersson  
*The effects of Al in plasma-assisted MBE-grown GaN*  
Materials Research Society (MRS) 1999 FALL MEETING, Boston, United States, November 29 - December 3, 1999.
21. O. Zsebök, J.H. Gunnarsson, J.V. Thordson and T.G. Andersson  
*The use of RHEED to minimise the nitridation damage when growing GaN on GaAs by MBE*  
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Nancy, France, March 27-30, 2000.
22. O. Zsebök, K.K.M.N.Gurusinghe, J.V. Thordson, Q.X. Zhao, G. Swenson, and T.G. Andersson  
*GaN Grown on GaAs and Sapphire Substrates by MBE*  
GHZ2000 SYMPOSIUM ON GIGAHERZ ELECTRONICS, Göteborg, Sweden, March 13-14, 2000.
23. O. Zsebök,  
*Rádiófrekvenciás kommunikáció és a chipkártyák felépítése*  
Kutatók éjszakája, Széchenyi István Egyetem, Győr, September 26, 2006.
24. O. Zsebök  
*Connection of Personal Identification and Asset Tracking*  
RFID Networking Forum, London, United Kingdom, June 20-21, 2007.

25. O. Zsebök,  
*Rádiófrekvenciás eszközök és plazma kapcsolata*  
Kutatók éjszakája, Széchenyi István Egyetem, Győr, September 28, 2007.
26. Z. Pólik, O. Zsebök, I. Hurtik  
*RFID-val a logisztika biztonságáért*  
Magyar Logisztikai Egyesület, MTA Székház, Budapest, Hungary, September 9, 2009.
27. O. Zsebök,  
*Félvezetőlézerek a mindennapokban*  
Kutatók éjszakája, Széchenyi István Egyetem, Győr, September 25, 2009.
28. O. Zsebök, Z. Pólik, I. Hurtik  
*Biometrikus azonosítás és UHF azonosítási technológia*  
Biztonságtechnikai Szakmai Nap, Budapest, Hotel Helia, 2009.
29. O. Zsebök  
*RFID and Biometric Identification*  
ESM 2010 in Telecommunication and Intercultural Communication, Széchenyi István University, Győr, May 9-16, 2010
30. B. Szórádi, O. Zsebök  
*LED fényforrások fénymegtartása, várható élettartamának vizsgálata*  
LED Konferencia, MEE Világítástechnikai Társaság, Budapest, February 23-24, 2010.
31. O. Zsebök, Zs. Pap  
*Integrated Security Solution for Access Control, Video Surveillance, and Intrusion Alarm*  
Integrated Security Forum, Brussels, April 26, 2010.
32. O. Zsebök, T. Tóth, Zs. Pap  
*Integrated Security System with Redundant Site Management*  
Integrated Security Forum, Győr, June 4, 2010.
33. O. Zsebök,  
*Rádiófrekvenciás azonosítási technológiák ipari alkalmazásai*  
RFID Forum, Budapest, June 10, 2010.
34. O. Zsebök,  
*Azonosak vagyunk-e önmagunkkal?*  
Kutatók éjszakája, Széchenyi István Egyetem, Győr, September 24, 2010.
35. O. Zsebök,  
*Rádióhullámok legújabb alkalmazásai*  
Kutatók éjszakája, Széchenyi István Egyetem, Győr, September 23, 2011.
36. I. Hurtik, O. Zsebök,  
*Kártyabiztonság*  
XV. Országos Tulajdonvédelmi Konferencia, AQUA-SOL Hotel, Hajdúszoboszló, October 13-15, 2011.
37. O. Zsebök  
*Új rádiófrekvenciás alkalmazások – Intelligens, univerzális decentralizált szerzórálózat és védelmi rendszer rádió-kommunikáció alapon*  
Biztonságtechnikai Szakmai Nap, Budapest, Hotel Helia, December 15, 2011.
38. O. Zsebök, J. Ledo  
*Remote temperature sensing systems for industrial applications*  
Conference on Temperature Validation, Balatonszemes, September 10-12, 2013.
39. O. Zsebök, J. Ledo  
*Temperature validation for industrial moist heat sterilization and washer disinfection*  
Conference on Temperature Validation, Balatonszemes, September 10-12, 2013.