List of Publications

# Yury Kuzminykh

## Theses

*Crystalline, rare-earth-doped sesquioxide and YAG PLD-films*
Ph.D. thesis, University of Hamburg, Hamburg, Germany, 2006
http://www.sub.uni-hamburg.de/opus/volltexte/2006/3039/
http://deposit.ddb.de/cgi-bin/dokserv?idn=981073182

*Spectral and lasing properties of potassium-yttrium tungstate, doped with ytterbium and thulium*
Diploma thesis, Belorussian State University, Minsk, Belarus, 2002

## Journals

*Epitaxial layer-by-layer growth of Yb:YAG and YbAG PLD-films*
Teoman Gün , Yury Kuzminykh, Friedjof Tellkamp, Klaus Petermann, and Günter Huber
Appl Phys A 93: 387–391 (2008)
http://dx.doi.org/10.1007/s00339-008-4844-0
http://www.springerlink.com/content/rr261148w7745348/

*Amplification in epitaxially grown Er:$(Gd,Lu)_2O_3$ waveguides for active integrated optical devices*
Andreas Kahn, Henning Kühn, Sebastian Heinrich, Klaus Petermann, Jonathan D. B. Bradley, Kerstin Wörhoff, Markus Pollnau, Yury Kuzminykh, and Günter Huber
JOSA B, Vol. 25, Issue 11, pp. 1850-1853 (2008)
http://dx.doi.org/10.1364/JOSAB.25.001850
http://www.opticsinfobase.org/josab/abstract.cfm?URI=josab-25-11-1850

*Epitaxial growth by pulsed laser deposition of Er-doped $Sc_2O_3$ films on sesquioxides monitored in situ by reflection high energy electron diffraction*
Teoman Gün, Yury Kuzminykh, Klaus Petermann, Hanno Scheife, and Günter Huber
Appl. Phys. Lett. 91, 083103 (2007)
http://dx.doi.org/10.1063/1.2773750
http://link.aip.org/link/?APPLAB/91/083103/1

*Nondestructive measurement of the propagation losses in active planar waveguides*
Andreas. Kahn, Yury Kuzminykh, Hanno Scheife, and Günter Huber
JOSA B, Vol. 24, Issue 7, pp. 1571-1574 (2007)
http://dx.doi.org/10.1364/JOSAB.24.001571
http://www.opticsinfobase.org/abstract.cfm?URI=josab-24-7-1571

*PLD-grown Yb-doped Sesquioxide Films on Sapphire and Quartz Substrates*
Yury Kuzminykh, Hanno. Scheife, Sebastian Bär, Klaus Petermann, and Günter Huber
J. Phys.: Conf. Ser. 59, 462-465 (2007)
http://dx.doi.org/10.1088/1742-6596/59/1/099

*$Nd^{3+}$ doped $Sc_2O_3$ waveguiding film produced by pulsed laser deposition*
Yury Kuzminykh, Andreas Kahn, and Günter Huber
Optical Materials, 28, 883-7 (2006)
http://dx.doi.org/10.1016/j.optmat.2005.09.051

## International conferences

*Combination of Electron or Laser Beam Irradiation with High Vacuum Chemical Vapor Deposition (HV-CVD) of $Al_2O_3$ for in-situ Local Structuring on Wafer Scale Substrate*
Yury Kuzminykh, Xavier Multon, and Patrik Hoffmann
EuroCVD-17; Vienna, Austria, 4-9 October 2009, accepted

*Tailoring of Optical Properties of Alumina films deposited by High Vacuum CVD (HV-CVD)*
Xavier Multon, Bamdad Afra, Yury Kuzminykh, and Patrik Hoffmann
EuroCVD-17; Vienna, Austria, 4-9 October 2009, accepted

*Combinatorial Chemical Vapor Deposition of Lithium Niobate Thin Films*
Ali Dabirian, Yury Kuzminykh, Silviu Cosmin Sandu, Estelle Wagner, Giacomo Benvenuti, Catherine Parsons and Simon Rushworth, Patrik Hoffmann
EuroCVD-17; Vienna, Austria, 4-9 October 2009, accepted

*Optimization of Ca precursor Transport for High Vacuum Chemical Vapor Deposition (HV-CVD)*
Lu Luo, Yury Kuzminykh, Maria Rita Catalano, Graziella Mal*andrino, a*nd Patrik Hoffmann
EuroCVD-17; Vienna, Austria, 4-9 October 2009, accepted

*High Vacuum Chemical Vapour Deposition#of Mixed (Titanium-Copper) Oxide Films*
Yury Kuzminykh, Silviu Cosmin Sandu, Estelle Wagner, Giacomo Benvenuti, and Patrik Hoffmann
European Material Research Society (EMRS 2009) Spring Meeting, Strasbourg, France, 8–12 June 2009, Talk H 2 2.

*Efficient optimization of high vacuum chemical vapor deposition of niobium oxide on full wafer scale*
Ali Dabirian, Yury Kuzminykh, Cathrine Parsons, Simon Rushworth, EstelleWagner, Silviu Cosmin Sandu, Giacomo Benvenuti Scott Harada, Paul Muralt, Patrik Hoffmann
European Material Research Society (EMRS 2009) Spring Meeting, Strasbourg, France, 8–12 June 2009, Talk G 8 4.

*Assisted Beam Chemical Deposition: new potentialities for complex oxide deposition*
Silviu Cosmin Sandu, Giacomo Benvenuti, Estelle Wagner, Ali Dabirian, Yury Kuzminykh and Patrik Hoffmann
European Material Research Society (EMRS 2009) Spring Meeting, Strasbourg, France, 8–12 June 2009, Talk G 8 3.

*Systematic study of lithium tert-butoxide (Li(OBut)) in high vacuum chemical vapor deposition of lithium niobate*
Ali Dabirian, Yury KuzminykhSilviu Cosmin Sandu, Estelle Wagner, Giacomo Benvenuti, Cathrine Parsons, Simon Rushworth, Patrik Hoffmann
European Material Research Society (EMRS 2009) Spring Meeting, Strasbourg, France, 8–12 June 2009, Poster H P2 21.

*Epitaxial growth of Yb-doped YAG and YbAG PLD-films monitored in situ by Reflection High Energy Electron Diffraction*
Teoman Gün, Yury Kuzminykh, Klaus Petermann, Hanno Scheife, and Günter Huber
in CLEO/Europe and IQEC 2007 Conference Digest, (Optical Society of America, 2007), paper CE8_6
ECLEO Munich, Germany, June 17, 2007

*Yb-doped YAG and YbAG PLD-films: Growth and Characterization*
Yury Kuzminykh, Teoman Gün, Klaus Petermann, Hanno Scheife, and Günter Huber
European Material Research Society 2007 Spring Meeting, Strasbourg, France, 28 May – 1 June 2007, Talk C-1 4

*In situ Monitoring of $Sc_2O_3$ and Er-doped $Sc_2O_3$ PLD-films Growth by Reflection High Energy Electron Diffraction*
Teoman Gün, Yury Kuzminykh, Klaus Petermann, Hanno Scheife, and Günter Huber
European Material Research Society (EMRS 2007) Spring Meeting, Strasbourg, France, 28 May – 1 June 2007, Talk P-O9 3

*Miniature Lasers on the Basis of Yb:$Sc_2O_3$*
K. Scholle, P. Fuhrberg, T. Gün, Y. Kuzminykh, K. Petermann, and G. Huber
in Advanced Solid-State Photonics, OSA Technical Digest Series (CD) (Optical Society of America, 2007), paper WB5
ASSP, Vancouver, Canada, 28 – 31 January 2007

*Highly Yb-doped YAG Films Grown by Pulsed Laser Deposition*
Y. Kuzminykh, K. Petermann, G. Huber, and H. Scheife
EPS-QEOD Europhoton Conference, Pisa, Italy, 10 – 15 September 2006, Poster TuC1

*Non-destructive scattering loss measurement in active planar waveguides*
A. Kahn, Y. Kuzminykh, H. Scheife, G. Huber,
EPS-QEOD Europhoton Conference, Pisa, Italy, 10 – 15 September 2006, Poster TuC6

*Properties of crystalline, Nd-doped $Sc_2O_3$ PLD-films depending on process parameters*
Y. Kuzminykh, A. Kahn, K. Petermann, and H. Scheife
European Material Research Society 2006 Spring Meeting, Nice, France, 29 May – 2 June 2006, Talk H/J 05 04

*PLD-grown Yb-doped Sesquioxide Films on Sapphire and Quartz Substrates*
H. Scheife, Y. Kuzminykh, S. Bär, K. Petermann, and G. Huber
The 8$^{th}$ International Conference on Laser Ablation, Banff, Canada, 11 – 16 September 2005, Poster TuPO84

*$Nd^{3+}$ doped $Sc_2O_3$ waveguiding film produced by pulsed laser deposition*
Y. Kuzminykh, A. Kahn and G. Huber
European Material Research Society 2005 Spring Meeting, Strasbourg, France, 31 May – 3 June 2005, Talk C-IV02 and Poster C/PII.26

*Quantum Efficiency of the Cascade Emission Process in $Pr^{3+}$ doped $YF_3$*
S. Kück, A. Richter, Y. Kuzminykh, I. Sokólska, and E. Osiac
in Conference on Lasers and Electro-Optics/Quantum Electronics and Laser Science and Photonic Applications Systems Technologies, Technical Digest (CD) (Optical Society of America, 2005), paper CMR1.
CLEO, Baltimore, MA, USA, 3 - 27 May 2005, Talk CMR1

*Rare-earth-doped yttria waveguides grown by pulsed laser deposition*
B. Neubert, S. Bär, Y. Kuzminykh, H. Scheife, and G. Huber
in Advanced Solid-State Photonics, Technical Digest (Optical Society of America, 2005), paper MB31
ASSP 2005, Vienna, Austria, 6 - 9 February 2005, Poster MB31

*Waveguiding thin $Y_2O_3$ films grown on sapphire substrates*
Y. Kuzminykh, S. Bär, H. Scheife, and G. Huber
EPS-QEOD Europhoton Conference, Lausanne, Switzerland, 28 August – 3 September 2004, Poster ThC2

*Europium-doped yttria and lutetia thin films grown by pulsed laser depositon* EPS-QEOD
S. Bär, Y. Kuzminykh, H. Scheife, G. Huber, J. Gonzalo, and M. Munz
Europhoton Conference, Lausanne, Switzerland, 28 August – 3 September 2004, Poster ThC3

*CW Yb,Tm:KYW Microchip Laser*
A. Kuzmin, Y. Kuzminyh, A. Demidovich, A. Titov, M. Mond, and S. Kueck
Conference on Lasers, Applications and Technologies , Moscow, Russia, 22 - 28 June 2002, Poster LME3

## National conferences

*Spektroskopische Charakterisierung von Er3+- und Er3+, Yb3+-dotierten Sesquioxidschichten für Laseranwendungen*
Andreas Kahn, Matthias Fechner, Nils-Owe Hansen, Henning Kühn, Yury Kuzminykh, Hanno Scheife und Günter Huber
DPG-Jahrestagung, Düsseldorf, Germany, 19 - 23 March 2007, Talk Q8.1

*Verlustmessung an $Nd^{3+}$-dotierten planaren Wellenleitern*
A. Kahn, Y. Kuzminykh, H. Scheife, and G. Huber
DPG-Jahrestagung, Frankfurt, Germany, 13 - 17 March 2006, Talk Q11.2

*Optisch Aktive Sesquioxidwellenleiter*
Y. Kuzminykh, B. Neubert, S. Bär, A. Kahn, and H. Scheife
DPG-Jahrestagung, Berlin, Germany, 4 – 9 March 2005, Talk Q66.6

*Epitaktisch gewachsene dünne PLD-Sesquioxideschchen auf Quarz*
S. Ehlert, S. Bär, L. Rabisch, Y. Kuzminykh, H. Scheife
DPG-Jahrestagung, Berlin, Germany, 4 - 9 March 2005, Talk DS5.2

*Planar garnet and sesquioxide waveguide structures*
A. Kahn, B. Neubert, Y. Kuzminykh, L. Rabisch, H. Scheife, and G. Huber
15. Norddeutscher Lasertag, Hamburg, Germany, 8 December 2004, Poster

*Eu-dotierte dünne Sesquioxidschichten auf Quarz*
S. Ehlert, S. Bär, Y. Kuzminykh, L. Rabisch, H. Scheife and G. Huber
15. Norddeutscher Lasertag, Hamburg, Germany, 8 December 2004, Poster

*PLD Herstellung von oxidischen Schichten (Saphir-Sesquioxid System)*
*Y. Kuzminykh, S. Bär, and G. Huber*
14. Norddeutscher Lasertag, Braunschweig, Germany, 3 December 2003, Poster

## Summer schools and workshops

Y. Kuzminykh, H.Scheife
*Kristalline, SE-doteirte PLD-Oxidschichten*
DGKK AK-Tagung “Kristalle für Laser und Nichtlineare Optik”, 28 – 29 September 2006, Hamburg, Germany

Y. Kuzminykh, *Thin oxide films fabricated by pulsed laser deposition (sapphire-sesquioxides system)*
*“*Nanophotonics” Summer School, Cargèse, France, 19 April – 1 May 2004

Y. Kuzminykh, *Herstellung und Charakterisierung von dünnen oxidischen PLD-Schichten*
Workshop des Graduertenkollegs 463, Stade, Germany, 12 – 13 October 2004

Y. Kuzminykh, *PLD Herstellung von oxidischen Schichten (Saphir-Sesquioxid System)*
Workshop des Graduertenkollegs 463, Ahrensburg, Germany, 4 – 5 November 2003

WE-Heraeus-Ferienkurs “Nitridische und Oxidische Wide-Gap-Halbleiter für Nano- und Optoelektronik”, Magdeburg, Germany, 8 – 19 September 2003

Y. Kuzminykh, “*Spectral and lasing properties of potassium- yttrium tungstate doped with thulium and ytterbium*
Workshop des Graduertenkollegs 463, Lüneburg, Germany, 17 - 18 October 2002

June 2009.