

Program

6 March 2006 (Monday)

10:00 Registration desk open

14:30-14:45 **Welcome & Opening ceremony**

R. Fornari (conference chair), W. Assmus (DGKK chair), S. Krukowski (PTWK chair)

**Oral session 1: - Dedicated to the memory of Dr. Elisabeth Bauser
Epitaxial growth and characterization of semiconductors** (Chair: W. Neumann)

14:45 **Invited:** Dr. Elisabeth Bauser – The epitaxial growth scientist and the great human being (S. Rotter)

15:15 **Invited:** Recent progress in the lateral overgrowth of semiconductor structures by LPE (Z. Zykiewicz)

15:45 Optical, electrical and morphological characterization of 2ⁿ gallium nitride layers grown by low pressure solution growth method (LPSG) (S. Hussy)

16:00 In situ x-ray diffraction studies of GaSb homoepitaxy (B. Tinkham)

16:15 Growth and characterization of HPHT type IIa diamonds for X-ray optical applications (J. Härtwig)

16:30-16:45 Break

Oral session 2: Advances in crystal growth theory and practice, growth modelling (Chair: W. von Ammon)

16:45 **Invited:** Coupling of different software for simulation of convection phenomena in crystal growth configurations (J. Fainberg)

17:15 Experiments to interpret the dynamic cellular convection pattern on the surface of refractory melts (D. Schwabe)

17:30 Dissolution of nitrogen in liquid Li - DFT study (S. Krukowski)

17:45 Sphere growth study on decagonal AlCoNi quasicrystals (G. Meisterernst)

18:00-19:00 **Visit of IKZ I for interested polish participants**

18:00-19:30 General assembly of DGKK

7 March 2006 (Tuesday)

Oral session 3: Growth from the melt of elemental and compound semiconductors (Chair: G. Müller)

09:00 **Invited:** Stoichiometry-related effects in the growth of compound semiconductors (P. Rudolph)

09:30 Development of Radiation detectors based on (Cd,Zn)Te (M. Fiederle)

09:45 Vertical Gradient Freeze with Travelling Magnetic Field (R. Lantzsich)

10:00 A new approach for feedback control of radius and growth rate in Czochralski processes (M. Neubert)

10:15-10:45 Break

Oral session 4: Bulk growth of wide-bandgap semiconductors (Chair: S. Eichler)

10:45 **Invited:** Growth of GaN single crystals for optoelectronic applications: high and low pressure methods (I. Grzegory)

11:15 Growth of AlN bulk crystals in carburized Ta crucibles via sublimation (C. Hartmann)

11:30 Influence of oxygen on initial growth stage in PVT growth of AlN on SiC substrates. (P. Heimann)

11:45 PVT growth of 6H-SiC crystals along the [01-15] direction (O. Filip)

12:00-13:00 **Poster Session A**

=> Growth of crystals for photonic and spintronic applications, doping issues, surfaces and interfaces, nanocrystals, quantum wells and dots, semiconductor epitaxy, semiconductor bulk growth, theory of crystallisation

13:00-14:00 Lunch

Oral session 5: Bulk growth of dielectric crystals (Chair: R. Uecker)

14:00 **Invited:** Solid solution of oxide single crystals - substrate materials for epitaxy (M. Berkowski)

14:30 Growth and characterisation of the novel tetragonal tungsten bronze $CaxBa_{1-x}Nb_2O_6$ (M. Burianek)

14:45 Czochralski growth of 2 inch single crystal Lithium Aluminate, LiAlO₂ (B. Velickov)

15:00 Growth of self-organized dielectric micro-structures by the micro-pulling down method (D. Pawlak)

15:15 Czochralski Growth of Rare-Earth Scandates (R. Uecker)

15:30-16:00 Break

Oral session 6: Thin films of functional oxides (Chair: K. Sangwall)	
16:00	Invited: Rare Earth Scandate Thin Layers for Microelectronic Applications (J. Schubert)
16:30	Growth of Praseodymium Oxide by Molecular Beam Epitaxy with High-temperature Effusion Cells (T. Watahiki)
16:45	Homoepitaxy of Zinc Oxide (S. Lautenschläger)
Oral session 7: Intermetallic and oxidic systems with spin and charge correlations (Chair: W. Assmus)	
17:00	Invited: Aspects of single crystal growth of intermetallic and oxide compounds with spin and charge correlations (G. Behr)
17:30	Crystal structure of a $\text{Ca}_{25}\text{Co}_{22}\text{O}_{56}(\text{OH})_{28}$ - a new layered misfit compound. (T. Klimczuk)
17:45	LPE grown bismuth substituted rare earth iron garnet layers (Bi-REIG) with different magneto-optical imaging behaviour (A. Lorenz)
19:30	Conference dinner in the "green house" of IKZ
8 March 2006 (Wednesday)	
9:00-10:00	Poster session B: Organic materials for NLO and electronic applications, biological crystals, novel growth approaches and improvement of traditional growth technologies, fibre growth, bulk oxides, HTC superconductors, oxide epitaxy and new precursors
Oral session 8: Growth and characterization of nano-materials, meta-materials, quantum structures and self-assembling phenomena (Chair: L. Däweritz)	
10:00	Invited: Growth of (In,Ga)As/(Al,Ga)As-quantum wells on GaAs(110) by MBE (R. Hey)
10:30	Metalorganic vapor phase epitaxy of multimodal InAs/GaAs quantum dot ensembles (K. Pötschke)
10:45	MBE growth of strained-Si on ultrathin highly-relaxed SiGe virtual substrates for MOSFET devices (K. Lyutovich)
11:00-11:15	Break
Oral session 9: Epitaxy of GaN and related alloys (Chair: S. Krukowski)	
11:15	Invited: GaN/Si heterostructures: growth and properties (R. Paszkiewicz)
11:45	Crystallographic issues in growth of AlGaIn layers on bulk GaN substrates for violet laser diode construction (M. Leszczynski)
12:00	Transmission electron microscope study of the reduction of the dislocation density of GaN layers grown by low pressure solution growth (LPSG) (I. Brauer)
12:15	Study of the sublimation growth of GaN on sapphire substrates (B. Kallinger)
12:30-12:45	Closing ceremony
12:45-14:00	Lunch
14:00-15:00	Visit of IKZ II for interested german and polish participants
14.00-18:00	Satellite workshop on "Wire sawing" will take place in the Institute of Crystal Growth.