

PROGRAMME

WEDNESDAY, 11.03.2020

10:30 – 10:50 OPENING ANDREAS DANILEWSKY, ANDREAS ERB

SESSION 1

CHAIR PROF. DR. ANDREAS DANILEWSKY

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- 10:50 – 11:10 **DR. DIRK KOK**, RADBOUD UNIVERSITEIT NIJMEGEN, NL
Thermochemical heat storage using alcohol solvates
- 11:10 – 11:30 **DR-ING. MATTHIAS GERMANN**, ISABELLENHÜTTE, DILLENBURG
VGF-Growth of Half-Heusler-material for industrial production of thermoelectric-material
- 11:30 – 11:50 **TOM SCHNEIDER**, TU BERGAKADEMIE FREIBERG
3D interlayer growth in the high temperature vapor phase epitaxy of GaN
- 11:50 – 12:10 **DR. NIKOLAY ABROSIMOV**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG, BERLIN
Growth of ²⁸Si crystals for the preparation of Si spheres

12:10 – 13:20 LUNCHBREAK

SESSION 2

CHAIR PROF. DR. PETER GILLE

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- 13:20 – 14:00 **DR. MATTHIAS SCHRECK**, UNIVERSITÄT AUGSBURG
(INVITED) *Single crystal diamond wafers by heteroepitaxy: Synthesis and potential applications*
- 14:00 – 14:20 **DR. LUTZ KIRSTE**, FRAUNHOFER IAF, FREIBURG
X-Ray Diffraction analysis of the defect structure of diamond substrates and Thick Diamond Films
- 14:20 – 14:40 **DR. STEPHAN MÜLLER**, FRAUNHOFER IISB, ERLANGEN
PVT growth of large freestanding C-doped AlN crystals
- 14:40 – 15:00 **DR. THOMAS STRAUBINGER**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG, BERLIN
Growth of bulk AlN crystals: Influence of the temperature field on growth rate, optical absorption and dislocation density

15:00 – 16:30 POSTERSESSION WITH DRINKS AND SNACK

- 16:30 – 17:10 **PROF. DR. GÜNTHER EGGELER**, RUHR-UNIVERSITÄT BOCHUM
(INVITED) *On mosaicity and the formation of defects during Bridgman processing of Ni-base single crystal superalloys*
- 17:10 – 17:30 **TIMMY REIMANN**, INNOVENT E.V, JENA
Magneto-optical Bismuth substituted rare-earth iron garnet sensor films for characterization of electrical steel sheets
- 17:30 – 17:50 **DARREN PEETS PhD**, TECHNISCHE UNIVERSITÄT DRESDEN
Self-flux growth of single crystals of BaCoSO
- 17:50 – 18:10 **MARIUS PETERS**, GOETHE UNIVERSITÄT FRANKFURT AM MAIN
Crystal growth of the valence fluctuating system EuPd_2Si_2
- 18:30 – 20:30 MITGLIEDERVERSAMMLUNG (GENERAL ASSEMBLY)
WITH DRINKS AND SNACK
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THURSDAY, 12.03.2020

SESSION 4

CHAIR DR. WOLFRAM MILLER

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- 08:30 – 09:10 **PROF. DR. JÖRG NEUGEBAUER**, MAX-PLANCK-INSTITUT FÜR EISENFORSCHUNG,
(INVITED) DÜSSELDORF
Modeling crystal growth and materials design in high dimensional chemical and structural configuration spaces
- 09:10 – 09:30 **DR. NORA WOLFF**, HELMHOLTZ-ZENTRUM BERLIN FÜR MATERIALIEN UND ENERGIE
Growth of CuFeO₂ single crystals by the optical floating-zone technique
- 09:30 – 09:50 **DR. NATALIJA VAN WELL**, LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN
Investigation of orthorhombic and tetragonal phases of Cs₂CuCl_{4-x}Br_x mixed system
- 09:50 – 10:10 **SEBASTIAN GRUNER**, FRAUNHOFER THM FREIBERG
Investigation of facet growth in heavily doped silicon single crystals grown in the mirror furnace
- 10:10 – 10:40 COFFEEBREAK

SESSION 5

CHAIR PROF. DR. MATTHIAS BICKERMANN

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- 10:40 – 11:00 **PROF. DR. MICHAEL HEUKEN**, AIXTRON, SE HERZOGENRATH
Control of AlInN composition in closed coupled showerhead MOCVD reactors
- 11:00 – 11:20 **DR. ANDREAS POPP**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG IKZ, BERLIN
Growth of modulation-doped β-Ga₂O₃ multilayers by MOVPE
- 11:20 – 11:40 **DR. WOLFRAM MILLER**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG, BERLIN
A KMC model for homoepitaxial growth of Ga₂O₃
- 11:40 – 12:00 **DR. CARSTEN DUBS**, INNOVENT E.V, JENA
Nanometer-thin iron garnet films grown by liquid phase epitaxy
- 12:00 – 13:00 LUNCHBREAK

SESSION 6

CHAIR PROF. DR. MICHAEL HEUKEN

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- 13:00 – 13:40 **DR. ALEXANDER KILLI**, TRUMPF LASER GMBH, SCHRAMBERG
(INVITED) *Significance of Optical Crystals for the laser industry*
- 13:40 – 14:00 **PROF. DR. MATTHIAS BICKERMANN**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG,
BERLIN
Crystal growth of oxides and fluorides at the IKZ
- 14:00 – 14:20 **ANASTASIA UVAROVA**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG IKZ, BERLIN
Growth of high-melting sesquioxides for laser applications
- 14:20 – 14:50 COFFEEBREAK

FRIDAY, 13.03.2020

SESSION 7

CHAIR DR. CHRISTIANE FRANK-ROTSCH

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- 09:00 – 09:20 **DR. KASPARS DADZIS**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG, BERLIN
Model experiments for crystal growth technique
- 09:20 – 09:40 **STANISLAUS SCHWANKE**, FRAUNHOFER IISB, ERLANGEN
Numerical modeling of metallic impurity incorporation during directional solidification of multi-crystalline silicon assisted by experimental proof
- 09:40 – 10:00 **OLIVER HARDER**, LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN
Forced convection by high-speed rotation in Czochralski growth from high temperature solutions
- 10:00 – 10:20 **DR. D.V. BERKOV**, GENERAL NUMERICS RESEARCH LAB. , JENA
Theoretical analysis, critique and validity limits of Haasen-Alexander-Model for predicting the dislocation density
- 10:20 – 11:00 COFFEEBREAK

SESSION 8

CHAIR DR. JOCHEN FRIEDRICH

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- 11:00 – 11:30 **PROF. DR. STEFAN SCHÖNERT**, TU MÜNCHEN
(INVITED) *High-purity single crystals for experiments in astroparticle physics research*
- 11:30 – 11:50 **DR. RADHAKRISHNAN SUMATHI** LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG, BERLIN
Towards 80 mm diameter ultra-high purity germanium single crystals by Czochralski growth
- 11:50 – 12:10 **KEVIN-PETER GRADWOHL**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG, BERLIN
Formation of vacancy related defects in high-purity germanium
- 12:10 – 12:30 **ANGELINA KINAST**, TU MÜNCHEN
CaWO₄ crystal growth for the CRESST dark matter search
- 12:30 – 12:50 **DR. THOMAS JAUß**, ALBERT-LUDWIGS UNIVERSITÄT, FREIBURG
Investigation of particle incorporation in a transparent melt system under μg conditions
- 12:50 – 13:00 CLOSING REMARKS

POSTERS

- 1** **MATTHIAS ARZIG**, FRIEDRICH-ALEXANDER-UNIVERSITÄT ERLANGEN-NÜRNBERG
Influence of the surface morphology on the defect distribution in the faceted region of 4H-SiC single crystals
- 2** **MICHAEL SCHÖLER**, FRIEDRICH-ALEXANDER-UNIVERSITÄT ERLANGEN-NÜRNBERG
Limitations during Vapor Phase Growth of Bulk (100) 3C-SiC Using 3C-SiC-on-SiC Seeding Stacks
- 3** **MELISSA RODER**, ALBERT LUDWIGS UNIVERSITY FREIBURG
X-Ray Analysis of Defects in 4H-SiC
- 4** **JOHANNES STEINER**, FRIEDRICH-ALEXANDER-UNIVERSITÄT ERLANGEN-NÜRNBERG
Impact of Varying Parameters on the Temperature Gradients in 100 mm Silicon Carbide Bulk Growth in a Computer Simulation Validated by Experimental Results
- 5** **DR. KLAUS BÖTTCHER**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG, BERLIN
Numerical Modelling of the Czochralski Growth of Neodymium-scandate single crystals
- 6** **FRANZISKA GRUßLER**, UNIVERSITY OF AUGSBURG
Synthesis and characterization of the triangular antiferromagnets NaYbO₂, KYbO₂ and NaYbS₂
- 7** **ELLA SUPIK** ALBERT LUDWIGS UNIVERSITY FREIBURG
The Influence of Sodium Dodecyl Sulfate on the Growth and Properties of Triglycine Sulfate Crystals
- 8** **ALEXANDER ENGELHARDT**, TECHNISCHE UNIVERSITÄT MÜNCHEN
Single-crystal growth and magnetic phase diagram of TbFeO₃
- 9** **FRANZISKA BREITNER**, UNIVERSITY OF AUGSBURG
Crystal Growth of Fe-doped Li₃N
- 10** **GLORIA KIRSTE**, LEIBNIZ-INSTITUT FÜR FESTKÖRPER- UND WERKSTOFFFORSCHUNG, DRESDEN
Microstructural evolution of intermetallics under the influence of magnetic field annealing – exemplified by Mn₃Ga
- 11** **PATRIZIA FRITSCH**, LEIBNIZ-INSTITUT FÜR FESTKÖRPER- UND WERKSTOFFFORSCHUNG, DRESDEN
ZF NMR as a tool to clarify crystallographic, magnetic, and electronic structure of magnetically ordered materials

- 12 DR. KRISTIN KLIEMT**, GOETHE-UNIVERSITÄT FRANKFURT
LnMn₂Ge₂ (Ln = Nd, Sm, Dy): Single crystal growth and characterization
- 13 DR. MATTHIAS SCHUSTER**, FRIEDRICH-ALEXANDER-UNIVERSITÄT ERLANGEN-NÜRNBERG
Directly analyzing the depth dependent properties of Cu(In,Ga)(S,Se)₂ wedges manufactured by exfoliation and a nontoxic, adjustable etching process
- 14 JIAONA ZOU**, MATERIALS RESEARCH CENTER FMF, FREIBURG
Crystal growth of (Cd,Zn)Te under microgravity Vampir-F: Characterization of ground experiments
- 15 ANDREAS-GABRIEL SCHNEIDER**, UNIVERSITY OF AUGSBURG
In-situ detection of crystallization processes and seed selection in high temperature solutions
- 16 JAN PHILLIP WÖHRLE**, ALBERT-LUDWIGS-UNIVERSITY FREIBURG
Investigation of soluto-capillary convection in Ge_xSi_{1-x} melts
- 17 IRYNA BUCHOVSKA**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG, BERLIN
Parameter study on n-type multicrystalline ingots with tailored resistivity profiles
- 18 DR. FRANK M. KIESSLING**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG, BERLIN
Investigation of directionally solidified quasi-mono silicon for future gravitational- wave detector test-mass mirrors
- 19 STEFAN PÜSCHEL**, LUDWIG-MAXIMILIANS-UNIVERSITÄT MÜNCHEN
Single crystal growth of Sn- and Ge-substituted GaPd₂ for basic research in catalysis
- 20 DR. HANS-JOACHIM ROST**, LEIBNIZ-INSTITUT FÜR KRISTALLZÜCHTUNG, BERLIN
Thermally stimulated dislocation generation in silicon crystals grown by the Floating Zone method