

Location ISSCG-12 will be held in a quiet region 20km outside of Berlin center in an elegant 18th century mansion at the Lake Wernsdorfer.

Participants will enjoy the mixture of lectures in the morning, relaxing and discussions during an extended lunch break, afternoon seminars and special programs in the evening.



Social events A welcome party will be held on Sunday evening.

For Wednesday afternoon a sight seeing trip to Berlin, the capital of Germany, is scheduled including an evening boat trip through the center of Berlin.

A special program for accompanying persons will be arranged.

IKZ Tour For interested participants one day before ISSCG-12, on July 31, a guided tour through the Institute for Crystal Growth in Berlin (IKZ) is planned.

Sponsoring Institutions, companies and organizations are cordially welcome to financially support ISSCG-12. Please contact the chairmen.

Contact

- Prof. Georg Müller, Crystal Growth Laboratory, University Erlangen-Nürnberg, georgmueller@ww.uni-erlangen.de
- Prof. Jean-Jaques Metois, CRMC2 - CRNS, University Marseille, metois@crmc2.univ-mrs.fr
- Prof. Peter Rudolph, Institut für Kristallzüchtung Berlin, rudolph@ikz-berlin.de

Further information can be found:
<http://ISSCG12.ikz-berlin.de>



ISSCG-12

The Twelfth International Summer School on Crystal Growth

August 1 - 7, 2004 in Berlin

jointly organized by



under the auspices of
International Organization of Crystal Growth

Objective/Organization

Objective The 12th International Summer School on Crystal Growth (ISSCG-12) will take place under the auspices of the International Organization of Crystal Growth in Berlin from August 1 - 7, 2004. ISSCG-12 will be held in conjunction with the 14th International Conference on Crystal Growth (ICCG-14) in Grenoble (August 9 - 13, 2004).

ISSCG-12 will be held in the tradition of previous schools, in an informal style with close personal contacts among the students, lecturers and other participants.

ISSCG-12 attracts newcomers as well as experts in the fascinating and industrially important field of crystal growth. It offers introductory lectures especially for beginners, tutorial seminars and expert lectures to special topics in the field of crystal growth.

The program topics are ranging from theory of crystal growth and modeling until crystal growth technology and characterization. Bulk growth and epitaxy of inorganic and organic materials as well as computer simulations are treated in 20 lectures and 12 seminars.

ISSCG-12 will be completed by a student poster session and an industrial exhibition. Furthermore, an interesting social program guarantees to deepen not only the knowledge in crystal growth but also in the cultural attractions of Germany's capital Berlin.

Organization ISSCG-12 is jointly organized by the German and French crystal growth organizations GFCC and DGKK.

ISSCG-12 will be chaired by

- Prof. Georg Müller, Crystal Growth Laboratory, University Erlangen-Nürnberg, georgmueller@ww.uni-erlangen.de
- Prof. Jean-Jaques Metois, CRMC2 - CRNS, University Marseille, metois@.crmc2.univ-mrs.fr
- Prof. Peter Rudolph, Institut für Kristallzüchtung Berlin, rudolph@ikz-berlin.de

The local organization will be carried out by

- T. Boeck, A. Lüdge, U. Rehse, J. Warneke, Institut für Kristallzüchtung, Berlin
- J. Friedrich, Crystal Growth Laboratory, Fraunhofer IISB Erlangen

Program (tentative)

Fundamentals

- Thermodynamics of modern epitaxy processes
- Actual concepts of interface kinetics
- Theory of crystal growth morphology
- Crystallization physics in biomacromolecular systems
- Crystal growth under μg on the Int.- Space Station
- Nanocrystals and nanotubes
- Fundamentals of epitaxial growth

Modeling

- Modeling of crystal growth processes
- Modeling of fluid dynamics in melt growth
- Molecular dynamics of crystal growth processes
- Computation of dislocation dynamics
- Modeling and analysis of phase diagrams
- Atomistic ad initio calculations in crystal growth

Technology

- Growth of silicon for microelectronics
- Growth of oxide crystals for non linear optics and sensors
- Growth of biological crystals
- Materials and crystal growth for photovoltaics
- Microchannel epitaxy - physics of lateral growth and its application
- Epitaxial technology of modern opto-electronic devices
- MOCVD of compound semiconductors

Defects

- Point defects in semiconductors
- Synchrotron radiation x-ray imaging
- Macromolecular crystals - growth and characterization
- In-situ analysis by AFM
- High resolution electron microscopy
- X-ray methods
- Electrical and spectroscopic analysis of point defects

ISSCG-12 Proceedings

The lectures will be published by ELSEVIER in a special volume and provided to all participants at the beginning of ISSCG-12.
