Freie Universität Berlin

Geowissenschaftliches Kolloquium

Crystal Growth under Microgravity

Donnerstag, 30. April 2015 - 16.15 Uhr

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Shooting the laboratory into space offers unique experimental conditions: Gravity is one of the parameters which influences fluid flows in melts for crystal growth. Convection strongly effects the quality and physical properties of crystals. Reducing the gravity allows a deeper insight into growth and transport mechanisms and the verification of numerical modelling. Some highlights from numerous microgravity campaigns will be reported by example of Si, Ge and GaAs. Such semiconductors are not only of high industrial interest, but also well suited as model systems for basic research.

PD Dr. Andreas Danilewsky studied Mineralogy and Crystal Chemistry in Stuttgart. He finished his PhD 1991 at the Crystallographic Institute, Freiburg about "Growth Kinetics and Dopant Incorporation in Semiconductor Crystals", with space experiments playing an important role. Since 1991 at the Crystallography in Freiburg, his research and teaching is all around the growth and characterisation of single crystals.

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