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Einladung
zum
Physikalischen Kolloquium

Montag, 17.05.2010 um 16.15 Uhr im H2 (025)

und

um 15:30 Uhr zum Gespräch bei Getränken und Gebäck im Institut für Quantenmaterie, Uni West, Raum 45.2.304

Prof. Dr. Thomas Lörting
Institut für Physikalische Chemie
Universität Innsbruck

Water at Subzero Temperatures

Water shows many anomalous properties, making it one of the most fundamental and important molecules. We are still very far from an understanding why its properties are so different from the properties of almost all other substances. These anomalies are even more pronounced in the supercooled, subzero temperature region.

In this talk I will speak about our experiments on liquid and solid water at subzero temperatures aiming at improving our understanding. This includes experiments about the manifold of crystalline ice structures at ambient and elevated pressures ("polymorphism"), the three non-crystalline forms of water ("amorphous polymorphism"), the possibility of separating water into two liquids of composition H_2O, the freezing of ice clouds in our atmosphere and experiments aimed at understanding water in interstellar space or in the interior of planetary bodies such as Ganymede.
As an appetizer you can see the "popcorn ice effect" in the picture sequence, i.e., how high-density amorphous ice converts into low-density amorphous ice.

Organisation: **Prof. Ankerhold, Tel.: - 22913**
Prof. Hecker Denschlag, Tel.: - 26100
Host: **Prof. Hecker Denschlag, Tel.: - 26100**