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Sommario/riassunto	Christina Maria Tonauer finds novel evidence for the first-order nature of the transition between high-density amorphous ice (HDA) and low-density amorphous ice (LDA), supporting water's liquid-liquid transition scenarios. Pressure-dependent crystallisation experiments of differently prepared expanded high-density amorphous ice samples (eHDA) and subsequent powder x-ray diffraction experiments disclose nucleation of LDA domains in bulk HDA, a typical feature of a first-order transition. The comparison of pressure-dependent crystallisation temperatures of eHDA samples with LDA nuclei and bulk LDA allows the estimation of the Laplace pressure and the size of a LDA nucleus. Contents Water's Polyamorphism High-Pressure in situ Volumetry and Powder X-Ray Diffraction Studies of Amorphous Ices Nucleation of Glassy Nuclei in High-Density Amorphous Ice Phase Transitions in

Nanosized Amorphous Nuclei Target Groups University lecturers, students, and researchers (experimentalists and theoreticians) working in the field of water science, focusing on anomalies of cold and supercooled water Material scientists and engineers in the field of amorphous systems The Author Christina Maria Tonauer is currently a doctoral candidate at the Institute of Physical Chemistry at the University of Innsbruck, Austria. The focus of her scientific interests is on the physico-chemical characteristics and the reactivity of crystalline and amorphous water ices.
