deformation were ... dependencies
substances. The difference ... explained by the structural phase transition in KCl.

K 18 The Determination and Analysis Surface Impurities on the Diamond by SIMS. ZHANG SHUDA, ICMP Academia Sinica and TRTV University; LI XIANGDONG, KCHB Diamond Factory. ---- The surface impurities on the diamond were determined and analysed by the secondary ion mass spectroscopy (SIMS) . In order to obtain the depth-profiling of the surface impurities, the ion erosion method was used. The time of erosion by Ar^+ with 15 keV totals 6400s. N, Na, Mg and Si are mainly chosen for the objects of study. Both high quality and low-grade synthetic diamond is determined. The analyses results indecate that the concentration maximums of various impurities are at thin layer near the most outward surface and its erosion time is about 6.5 min. Then the impurity concentrations are suddenly dropped. The different samples concentrations for a given impurity at the most outward surface may be very large difference, but there is not clearly difference where the erosion time is about more than 30 min. The distribution of most impurities, such as H, Al, K, Ca, Mn and Fe, are similar to above mentioned. The impurity states on the diamond surface could very greatly be deffered for it to grow under different circumstances. The impurity concentrations on the diamond surface could large be fallen by peculiar chemical treatment when there are more impurities.

K 19 Techniques for Studying Physical Properties in Large Volume Hydrostatic Pressure Apparatus* L. H. HANSEN, Sandia National Laboratories, Albuq
studying phase transi
on defects
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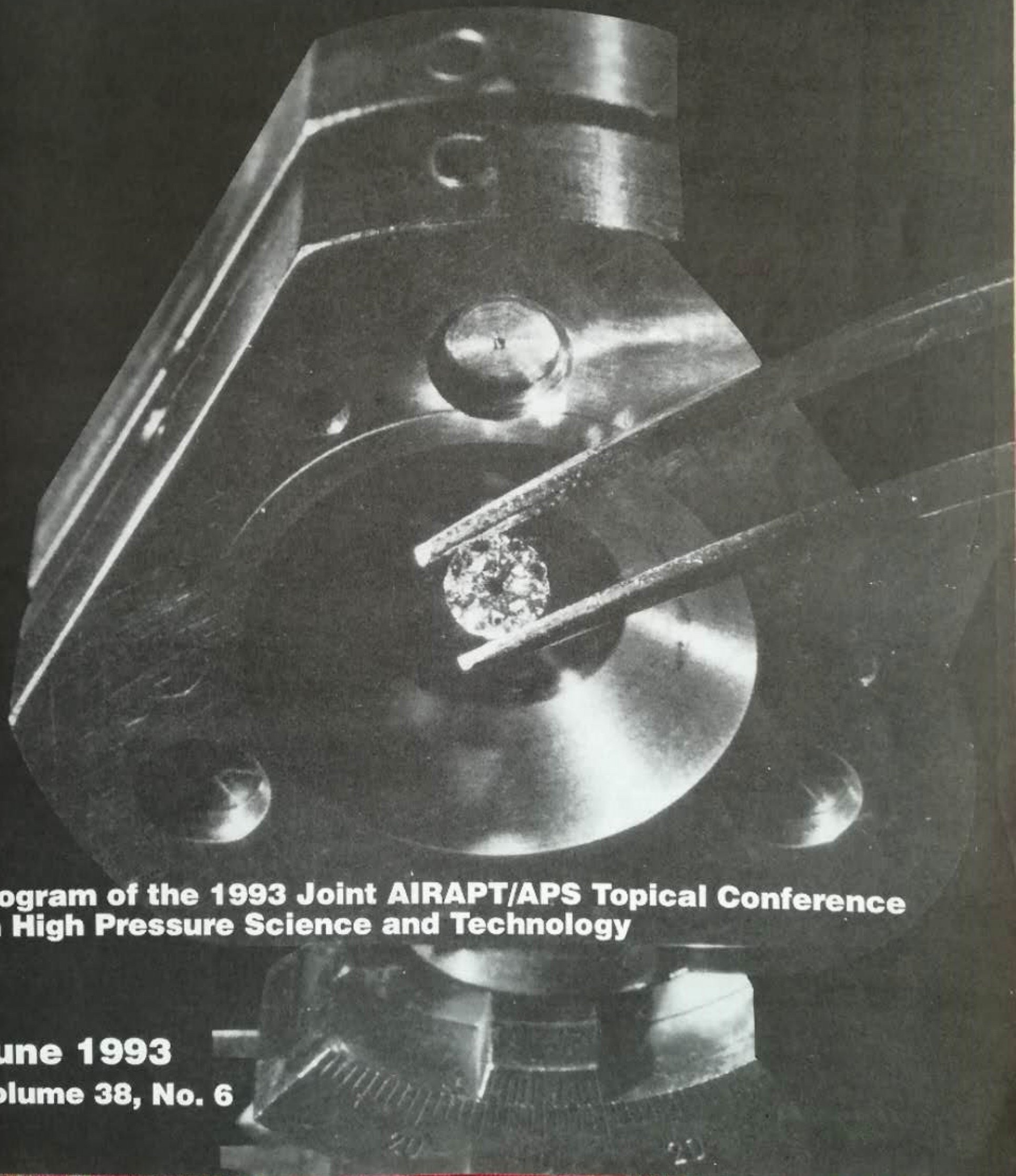

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