

Technical Report Number 164

February 1968

Apparatus for Mechanical Testing of  
Soft Crystals at High Pressure

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Abstract

Apparatus which has sufficient sensitivity for the tensile testing of soft single crystals at pressure levels to approximately 30 kbars is described. This equipment makes use of a tensile yoke and a load cell based on a linear variable differential transformer within the high pressure fluid. Strain is measured externally by monitoring the movement of the loading piston with a linear variable differential transformer and the load-displacement relationship is displayed on an X-Y recorder. Discussion of the calibration procedure and performance of the apparatus is included.

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