PHYSICS AND CHEMISTRY OF SOLIDS UNDER HIGH PRESSURE DELFT, THE NETHERLANDS

FAR INFRARED SPECTROSCOPY AT HIGH PRESSURES\*

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## ABSTRACT

The use of far infrared (FIR) spectroscopy at high pressures has had a rapid development since 1966. This development will be traced, and useful applications of the technique will be demonstrated.

Instrumental difficulties will be discussed.

The applications of the technique have developed along four paths:

(1) The measurement of the pressure dependencies of the optical long-wave phonons in ionic, or pseudo-ionic unimixed crystals has been made. Examples of the solids used are the alkali

 $<sup>\</sup>ensuremath{^*}\textsc{Based}$  on work performed under the auspices of the U. S. Atomic Energy Commission.