

It is anticipated that this work will continue with several modifications of the equipment and techniques as follows:

- (1) Attenuation will be made with a second beam condenser and diamond cell. This will serve to equalize the path lengths in both beams.
- (2) Low temperature and high pressure studies of solids will be made.
- (3) An attempt will be made to optimize the optics geometry.
- (4) Metal foil washers, with smaller holes than the size of the diamond, will be used as spacers between the diamonds. This will prevent observing the solid at the edges of the diamond faces.

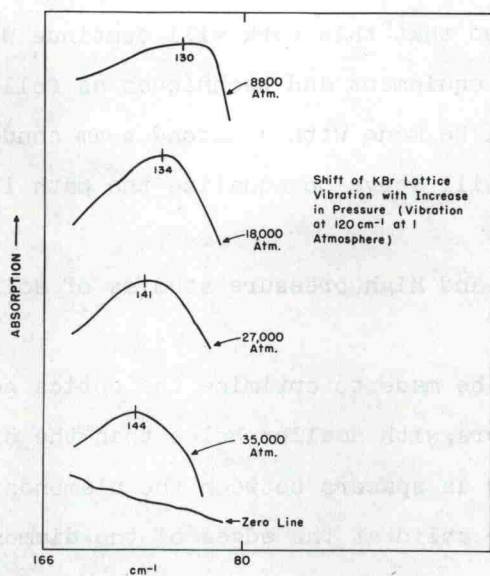


Fig. 3 - Effect of pressure on the lattice vibration of KBr.

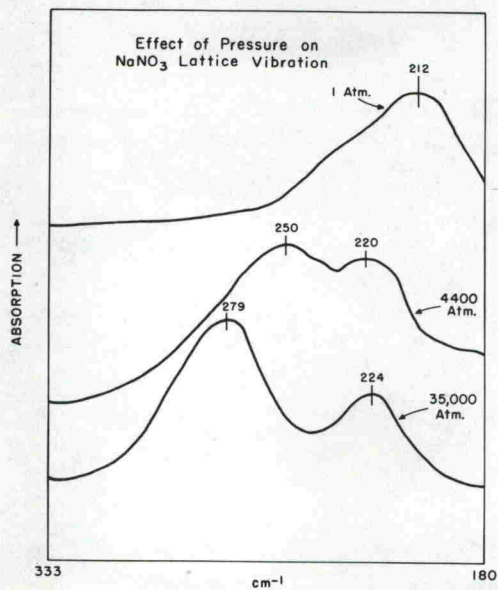


Fig. 4 - Effect of pressure on the lattice vibration of  $\text{NaNO}_3$ .