TABLE I

Summary of Available Optical High Pressure Cells

Type of Cell	Pressures	Advantages	Disadvantages
Shock Wave	1000 kbar	1) Highest obtainable pressures	1) Pressure exerted over short time
Piston and Cylinder	200 kbar	1) Largest specimen volumes	1) Not enough optical clarity to permit optical observation or photography
		2) Considered to give hydrostatic pressures	2) Specimen may interact with salt matrix
			3) Must be calibrated with respect to pressures measured in a different type of cell
Opposed Anvils (Diamonds)	200 kbar	1) Micro-quantities of material necessary	1) Pressure gradient exists
		2) Compact--can be used with spectrophotometers	2) Absorption of diamonds from 4-6 μ

TABLE II

High Pressure Apparatus Currently Used for Low Frequency Studies

Workers	Spectrophotometer or Interferometer	Wavelength Range μ	Optical Cell
Weir, Van Valkenburg, and Lippincott[3-5]	Commercial double-beam spectrophotometer with beam condenser	2-35	Diamond Anvil
Jacobsen and Brasch[15-16]	Perkin-Elmer No. 521*	2-35	Diamond Anvil
Ferraro, Mitra and Postmus[6-7]	Perkin-Elmer No. 301*	16-200	Diamond Anvil
	Beckman IR-11**	16-200	" "
	Beckman IR-12**	2-40	" "
McDevitt, Witkowski, and Fateley[9]	FS-520 interferometer	to 250	Diamond Anvil
Bradley, Gebbie et al.[8]	Michelson interferometer	50-1000	Anvil, quartz window

*With 6x beam condenser.

**With 8x beam condenser, (see L. Basile, et al. Spec. Letters, 1(5), 189 (1968)).

NOTE: For operation to 200 μ with a grating spectrophotometer, a cost of about $12,000 is necessary for a beam condenser and the diamond cell.