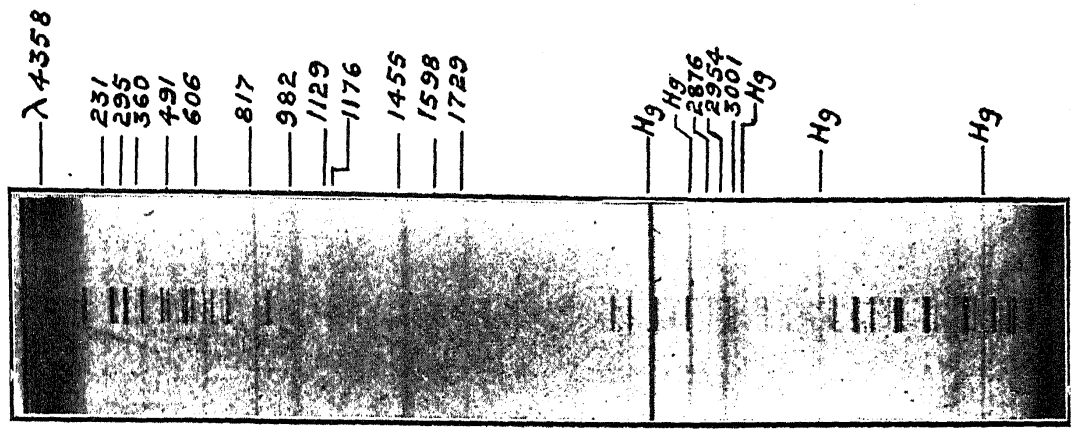

FIG. 1. Raman spectrum of plexi-glass.

in brackets represent rough estimates of the relative intensities of the lines. b = broad, d = diffuse. Besides confirming the frequency shifts already reported by Hibben, the three lines 231, 1176 and 1598 have been recorded for the first time. The appearance of the 1598 line in the spectrum of plexi-glass is very significant. It is in all probability due to C=C oscillation. The spectrum of methyl methacrylate liquid exhibits a line at 1638 cm. $^{-1}$ corresponding to C=C oscillation. Its absence in the spectrum taken by Hibben led him to conclude that the coupling of the molecules on polymerisation took place by the breaking of the C=C double band. This conclusion has to be revised in the light of the present investigation.

The author is grateful to Prof. R. S. Krishnan for suggesting the problem.

Department of Physics, M. M. PATEL.
Indian Institute of Science,
Bangalore,
November 24, 1949.

1. Hibben, *Jour. Chem. Phys.*, 1937, **5**, 706.

SPECTRUM OF MONOBROMOBENZENE

FOLLOWING the work on the ultra-violet absorption spectrum of iodobenzene,[1] that of bromobenzene was studied under similar conditions. The absorption bands extending from λ 2300 to λ 2350 consist of about 150, appearing in a number of groups. As reported earlier by Walerstein[2] and also referred to by Sponer and Teller,[3] the spectrum is a combination of the allowed transitions due to C_{2v} symmetry of C_6H_5Br and of the forbidden transitions of the benzene structure. The totally symmetrical carbon vibrations of 933,963 and 1020 in the upper state, the difference frequency 60 are evident in the structure of one set of the intense groups. The second set of intense bands displaced by about 520 cm.$^{-1}$ is also obtained. In addition, as observed in similar spectra of aniline,[4] phenol,[5] fluorobenzene,[6] several of the intense heads show a splitting into doublets with an average separation of about 6 cm.$^{-1}$ An additional difference frequency 221 cm.$^{-1}$, not reported previously, is also established. The most intense band of the group in the region near ν 38900 corresponds to (0+966 +932), while the overtone (0+2 × 1020) is absent.

Full details will be reported elsewhere.

Andhra University, K. SREERAMAMURTY.
Waltair,
November 22, 1949.

1. Sreeramamurty, K., and Rao, K. R., *Curr. Sci.*, in press. 2. Walerstein, *Phy. Rev.*, 1941, **59**, 924. 3. Sponer and Teller, *Rev. Mod. Phys.*, 1941, **13**, 75. 4. Ginsburg and Matsen, *J. Chem. Phys.*, 1945, **13**, 167. 5. Matsen, Ginsburg and Robertsen, *Ibid.*, 1945, **13**, 309. 6. Wollman, *Ibid.*, 1946, **14**, 123.

GEOGRAPHICAL INVESTIGATION OF THE GOKALPUR LAKE NEAR JUBBULPORE

THE important lake, situated north of Gokalpur village, is about two miles E.N.E. of Jubbulpore, over 1,300 feet above sea level and is put to multipurpose use. There is a depression, forming a natural rock basin in the granitic country with blocks of granite rising in some places above its surface. The north and the west are bounded by granitic hills, while on the north-west there is a natural