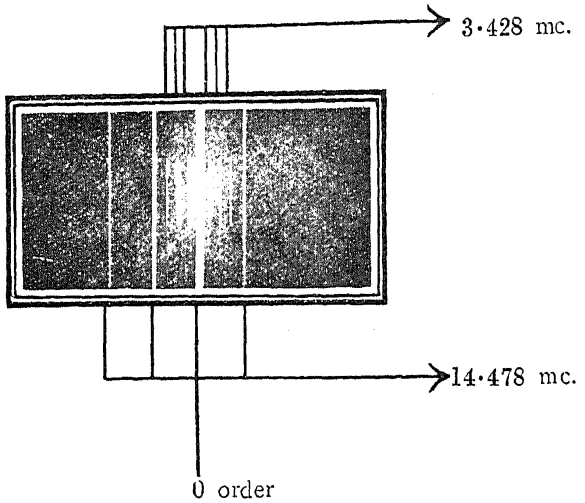
accurately in each case by a precision wave-meter.

The accompanying photograph shows the diffraction spectra at 3·428 mc. and 14·478 mc. taken with toluene as the liquid.



Diffraction spectra in toluene.

Experiments were carried out with the above arrangement on six liquids. While toluene and *m*-xylene show no dispersion within the range investigated, benzene, carbon tetrachloride and tetralin show a definite increase in velocity at 14·5 mc. and amyl-acetate a decrease in velocity.

The following table gives the experimental results :—

Liquids	Temp. in °C.	Sound velocity in m./s.	
		at 3·5 mc.	at 14·5 mc.
1. Benzene ..	26·8	1284	1290
2. Toluene ..	30·9	1272	1272
3. *m*-Xylene ..	27·1	1302	1302
4. Tetralin ..	30·3	1430	1434
5. Carbon tetrachloride ..	27·6	907·4	912·4
6. Amyl-acetate ..	27·2	1190	1179

A detailed paper will be published elsewhere.

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The Condensation of Resacetophenone with Open-chain and Cyclic β-ketonic Esters.

RESACETOPHENONE condenses with ethyl-acetoacetate in the presence of phosphorus oxychloride with the formation of 4-methyl-6-acetyl-7-hydroxycoumarin, (50% yield), which has already been isolated (in a small yield) by Limaye and Gangal[1] from the Frie's migration product of 7-acetoxy-4-methylcoumarin. The condensation does not take place in the presence of either concentrated sulphuric acid or sodium ethoxide. The reaction can be applied to all the unsubstituted and mono-substituted open-chain, as well as. cyclic β-ketonic esters, and we have already obtained a number of this type of coumarins and studied their properties. Full details will be shortly submitted for publication in the *Proceedings of the Indian Academy of Sciences.*

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Synthesis of Thujane.

THE synthesis of thujane, the parent hydrocarbon of the naturally occurring bicyclic terpenes of this group, was undertaken simultaneously in this laboratory by two different methods: *viz.*, (i) starting from a *cyclo*hexane derivative having two bromine atoms in positions 2 and 4, a methyl group in position 1, and an isopropyl group in position 4, and (ii) from a *cyclo*pentene derivative possessing a methyl group in position 1, a double bond between the carbon atoms in positions 2 and 3, and an *iso*propyl