

Printed graph referenced as "Ethyl-alcohol in CCl₄ [carbon chloride] layer 1mm (1-3) and 5mm (4-6)"

Contributors

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a atom of O such as acetone (see
 ol in acetone gives a band at about
 due to an addition-compound of one
 alcohol with one molecule of acetone.
 It is therefore logical to ascribe the
 in alcohol- CCl_4 solutions also to
 compounds but now of one alcohol
 with another alcohol-molecule. The
 must then be due to higher complexes.
 temperature the band of these
 most completely masks the band of
 molecules, but a relatively small
 temperature (of about 30°) destroys
 in favor of the formation of double
 and monomolecules.

Interpretation is correct we should find
 the double molecules even at ordinary
 if the concentration of the solution
 is diminished. Indeed, the results
 in Fig. 4 confirm this expectation. At
 a concentration of 1 percent an inflection in the
 curves appears at 3520, but at 0.125
 polymolecular band has disappeared
 but distinct band appears at 3525.
 on with temperature at this small
 is also in accordance with our
 n. At relatively great concentrations
 (2) the 3520 band becomes stronger
 of temperature because there are
 molecular complexes decomposed into

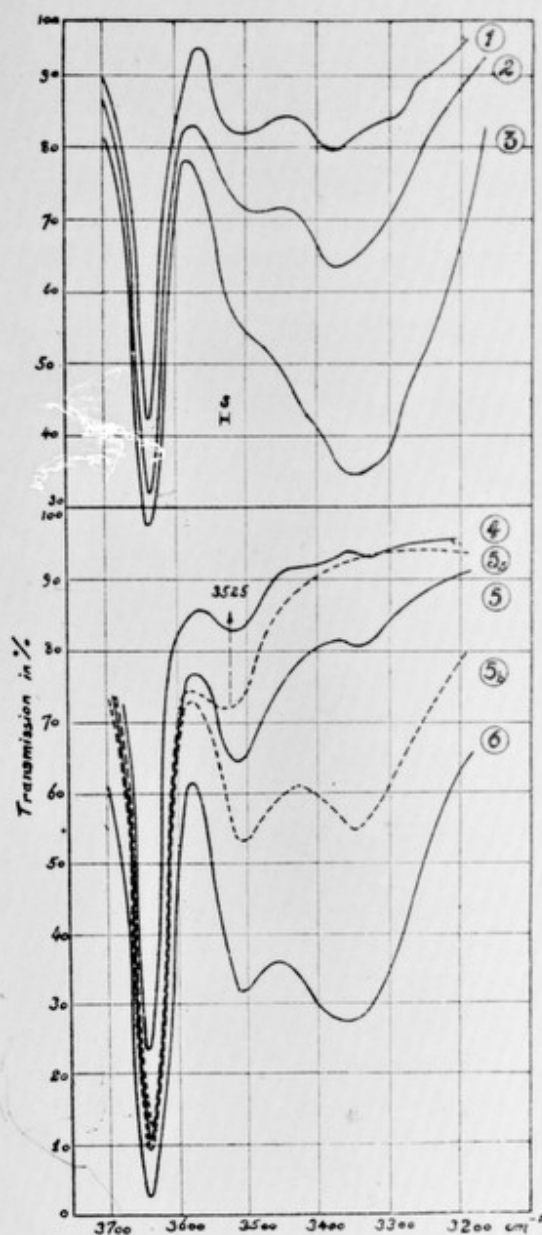
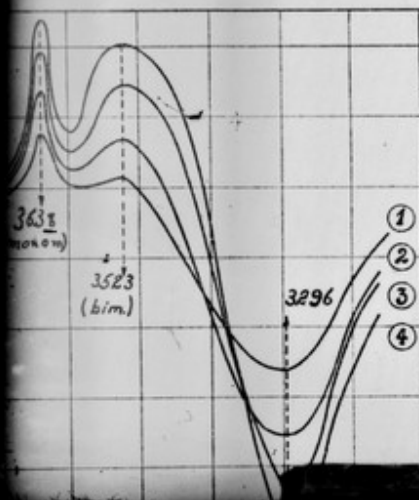


FIG. 4. Ethyl-alcohol in CCl_4 ; layer 1 mm (1-3) and 5 mm (4-6). (1) 0.5% (20°); (2) 0.75% (20°); (3) 1.0% (20°); (4) 0.125% (20°); (5) 0.25% (20°); (5a) 0.25% (55°) (5b) 0.25% (5°); (6) 0.5% (20°).



double molecules than double molecules decom-
 posed into monomolecules. At a very low concen-
 tration on the contrary, as is to be seen in Fig. 4,
 the 3520 band decreases with increasing tempera-
 ture because there are only a very few polymole-
 cules which may be decomposed and the effect of
 decomposition of double molecules into mono-