46. *The Parachors of Ethyl Orthoformate and Triphenylmethane.*

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WE recently showed (J., 1934, 32) that the parachors of tetrabromo- and tetranitromethane have negative anomalies of −16·7 and −20·8 respectively. From data given by Przyluska (*J. Chim. phys.*, 1909, **7**, 518), the parachor for triphenylmethane was derived as 578, $P_{calc.}$ being 591·9, and the suggestion was made that the presence of the three large groups substituted in the methane molecule was connected with the anomaly. A determination of the parachor of ethyl orthoformate showed, however, that for this trisubstituted methane no anomaly exists ($P_{obs.} = 367·2$; $P_{calc.} = 367·2$), and led us to redetermine the parachor of triphenylmethane. We find $P_{obs.} = 586·5$ ($P_{calc.} = 591·9$), there being no anomaly greater than the 1% variation allowed by Sugden's method. There is thus at present no evidence for parachor anomaly in the trisubstituted methanes.

Surface tensions were determined by Sugden's " bubble pressure " method, the apparatus being standardised with pure benzene. Densities were found by means of a standardised dilatometer.

Ethyl orthoformate, b. p. 145·1°.

Temp.	$d^{t°}_{4°}$.	γ, dynes/cm.	$P_{obs.}$
25·0°	0·888	23·41	366·7
40·0	0·872	21·99	367·6
50·0	0·862	20·90	367·0
60·0	0·851	19·99	367·7

Mean $P_{obs} = 367·2$; $P_{calc.} = 367·2$.

Triphenylmethane, m. p. 92·8°.

Temp.	$d^{t°}_{4°}$.	γ, dynes/cm.	P_{obs}
98·6°	1·0133	35·10	586·2
108·2	1·0058	34·22	586·9
117·6	0·9986	33·15	586·2
128·4	0·9908	32·25	586·9

Mean $P_{obs.} = 586·5$; $P_{calc} = 591·9$.

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