

This publication concerns the effects of pressures and solvents on the migratory aptitude of the *o*-anisyl group of meso and racemic 2,2'-dimethoxybenzopinacols [V] (equation 2) in order to clarify the nature of the so-called *ortho* effect in pinacol rearrangement.

Experimentals

Materials

2, 2'-Dimethoxybenzopinacol was prepared by the method of Beale and Hatt from 2-methoxybenzophenone. Meso form and racemic form⁶⁾ were separated by thin layer chromatography*1 (silicagel, *n*-hexane: benzene=1:3 v/v). mp 189~190°C (meso), 178~179°C (racemic). Acetic acid, acetonitrile, and toluene were commercial materials and purified by the ordinary method. Chloroform was commercial analytical reagent. Guaranteed reagent grade *p*-toluenesulfonic acid monohydrate was used as catalyst after drying under vacuum at room temperature. When anhydrous *p*-toluenesulfonic acid was desired, the acid monohydrate was dehydrated by heating to 55~60°C under vacuum in the presence of phosphorous pentoxide for a week⁷⁾.

Apparatus

The high pressure equipment is shown in Fig. 1. The glass hypodermic syringe, which contained

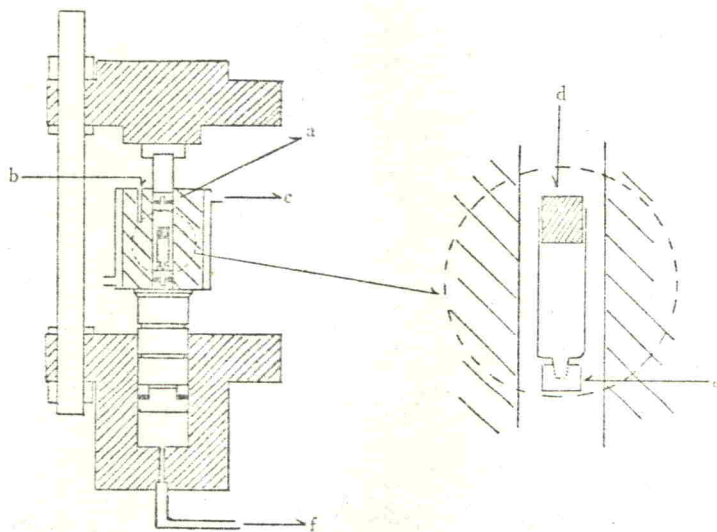


Fig. 1 The high pressure equipment
a, pressure vessel; b, thermocouple; c, thermostatted water; d, glass syringe; e, "Teflon"; f, to plunger-pump

- * 1 Silicagel was suspended in 0.04% uranine aqueous solution instead of distilled water.
- 6) R. Goto, A. Sera and K. Matsumoto, *Nippon Kagakuzasshi (J. Chem. Soc. Japan, Pure Chem. Sect.)*, **86**, 96 (1966)
- 7) F. Kraft and W. Wilke, *Ber.*, **33**, 3208 (1900)