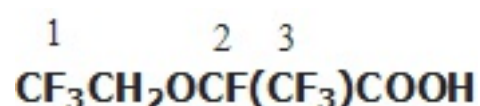


Hexafluoropropene oxide (16,6 g, 0,1 mol) was gradually introduced into the mixture of 19,3g (0,19 mol) trifluoroethanol, 19g (0,34 mol) KOH, 40 ml of H₂O, 50 ml of ether and 1,5g of Bu₄NBr at <30°C, then the mixture was stirred 1h at room temperature, acidified

with 30% hydrochloric acid, ethereal layer was separated, dried with MgSO_4 and distilled to give a fraction with b.p. 82-92°C/35 Torr. The following rectification afforded 16g (68% based on HFPO taken into reaction) of **1a**, b.p. 61-63°C/10 Torr. (lit. data: b.p. 125-127°C [2]). NMR ^{19}F spectrum (δ , p.p.m.): -3.3 (3F^1); 4.0 (3F^3); 54,5 (1F^2).



2-Phenoxytetrafluoropropionic acid **1b**

was obtained similarly from HFPO and phenol in 40% yield, b.p. 93-98°C/3 Torr; NMR ^{19}F spectrum (δ , p.p.m.): 5,2 (3F); 42,5 (1F). The acid was transformed into its K-salt **2b** without further purification.

2,2,2-Trifluoroethyltrifluorovinyl ether **3a**.

A solution of 16g (0,065 mol) **1a** in MeOH was neutralized with solution of KOH in MeOH (phenolphthalein as indicator), evaporated under reduced pressure, the residue was dried over P_2O_5 at 110°C/2-3 Torr., then pulverized, mixed with 20g of dry sand and subjected to thermolysis at 10-15 Torr by heating in the flame of Bunsen burner (or in Wood alloy bath at 225-280°C). The volatile products were collected in a trap (-78°C), the condensate was distilled to give 8.5g (67%) of ether **3a**, b.p. 41-44°C (b.p. and NMR ^{19}F spectrum were identical to that described in [2,4]).

Phenyltrifluorovinyl ether **3b**.

A mixture of 10.4g (0.037 mol) salt **2b** (dried over P_2O_5 at 110-115°C/3 Torr.) and 13g of dry sand was subjected to thermolysis under vacuum of oil pump, collecting the volatile products in a trap (-78°C). The condensate was distilled to give 5.9g (63%) of ether **3b**, b.p. 132-134°C (b.p. and NMR ^{19}F spectrum were identical to that described in [5,6]).

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