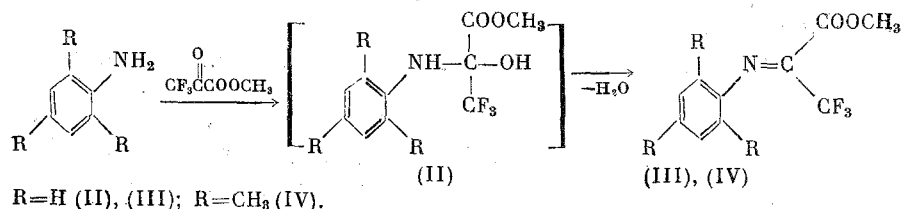


ANILS OF METHYL TRIFLUOROPYRUVATE

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We have found that the geminal aminohydroxy compound (II) formed upon the reaction of aniline with methyl trifluoropyruvate (I) [1], in contrast to the corresponding hexafluoroacetone derivatives [2], is dehydrated upon the azeotropic distillation of water with toluene to form anil (III) in 35% yield. Under these reaction conditions, mesidine gives anil (IV) in 93% yield.



Methyl ester of 2-(N-phenylimino)trifluoropropanoic acid (III) was obtained as a yellow liquid, bp 85°C (7 mm), n_D^{20} 1.4600. UV spectrum (λ_{\max} , nm): 214.4 (ϵ 3820), 323.2 (ϵ 1455). IR spectrum (ν , cm^{-1}): 1043 (C-O), 1685 (C=N), 1752 (C=O). ^{13}C NMR spectrum (δ , ppm, in CCl_4 rel. to TMS): 50.50 s (OCH_3), 116.42 q (CF_3 , $^1J_{\text{C-F}} = 277.2$ Hz), 117.47 s (C^2 , C^6), 125.27 s (C^4), 127.20 s (C^3 , C^5), 144.70 s (C^1), 146.84 q (N=C, $^2J_{\text{C-F}} = 32.8$ Hz), 157.74 s (C=O). Found: C 51.81; H 3.38; N 6.11%. Calculated for $\text{C}_{10}\text{H}_8\text{F}_3\text{NO}_2$: C 51.95; H 3.46; N 6.06%.

Methyl ester of 2-[N-(2,4,6-trimethylphenyl)imino]trifluoropropanoic acid (IV) was obtained as an orange liquid, bp 93°C (4 mm), n_D^{20} 1.4600. UV spectrum (λ_{\max} , nm): 259.6 (ϵ 912), 358.2 (ϵ 265). IR spectrum (ν , cm^{-1}): 1040 (C-O), 1689 (C=N), 1750 (C=O). ^{13}C NMR spectrum (δ , ppm, in CCl_4 rel. to TMS): 15.33 s (2,6- CH_3), 18.65 s (4- CH_3), 50.39 s (OCH_3), 116.06 q (CF_3 , $^1J_{\text{C-F}} = 278.7$ Hz), 122.24 s (C^2 , C^6), 126.60 s (C^3 , C^5), 132.00 s (C^4), 140.78 s (C^1), 148.56 q (N=C, $^2J_{\text{C-F}} = 31.9$ Hz), 157.01 s (C=O). Found: 56.84; H 5.22; N 5.16%. Calculated for $\text{C}_{13}\text{H}_{14}\text{F}_3\text{NO}_2$: C 57.14; H 5.13; N 5.13%.

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