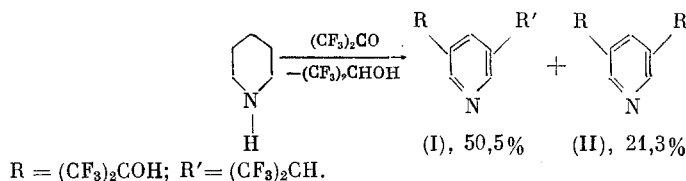


3-(2-HYDROXYHEXAFLUORO-2-PROPYL)-5-(2H-HEXAFLUORO-2-PROPYL)-
PYRIDINE AND 3,5-DI(2-HYDROXYHEXAFLUORO-2-PROPYL)PYRIDINE

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547.446.5:546.16

Heating piperidine with hexafluoroacetone taken in excess in Freon-113 at 90°C is accompanied by an oxidation-reduction reaction with the formation of pyridines (I) and (II) and hexafluoro-2-propanol.



3-(2-Hydroxyhexafluoro-2-propyl)-5-(2H-hexafluoro-2-propyl)pyridine (I), mp 110°C (from benzene), R_f 0.70 (3:1 CCl₄-acetone on Silufol). PMR spectrum in acetone-d₆ (δ, ppm): 5.48 sept [1H, (CF₃)₂C-H], 8.25 br.s (1H, OH), 8.40 br.s (1H, C⁴-H), 9.00 br.s, 9.12 br.s (2H, C²-H, C⁶-H). ¹⁹F NMR spectrum in acetone (δ, ppm): -2.9 s, -12.7 d, J_{H-F} = 19 Hz. ¹³C NMR spectrum in acetone (δ, ppm): 49.4 [HC(CF₃)₂], 121.7 (CF₃, J_{C-F} = 287.8 Hz), 122.0 (CF₃, J_{C-F} = 281.7 Hz), 122.3 (C⁵), 126.7 (C³), 135.1 (C⁴), 151.3, 148.4 (C², C⁶). Found, %: C 33.41, H 1.14, N 3.70. C₁₁H₅NOF₁₂. Calculated, %: C 33.41, H 1.26, N 3.54.

3,5-Di(2-hydroxyhexafluoro-2-propyl)pyridine (II), mp 145°C, R_f 0.52 (3:1 CCl₄-acetone on Silufol). PMR spectrum in acetone-d₆ (δ, ppm): 8.25 br.s (2H, OH), 8.52 br.s (1H, C⁴-H), 9.16 br.s (2H, C²-H, C⁵-H). ¹⁹F NMR spectrum in acetone (δ, ppm): -2.9 s. ¹³C NMR spectrum in CH₃OH (δ, ppm): 77.3 [C(CF₃)₂], 123.5 (CF₃, J_{C-F} = 287.8 Hz), 129.0 (C³, C⁵), 135.4 (C⁴), 149.7 (C², C⁶). Found, %: C 32.00, H 1.13, N 3.53. C₁₁H₅NO₂F₁₂. Calculated, %: C 32.11, H 1.21, N 3.41.

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