to distances of 3.988(2) Å (**2a**), 3.925(6) Å (the adduct of **2a** with Ph_3PS), and 3.980(3) Å (**2b**) from one another. These atoms probably do not approach each other more closely due to steric factors (bulky substituents at the P atom). It is of interest to note that in the ethylated derivative $[Ph_3PCMe_2SiMe_2SEt]^+Br^-$ (**3**) studied by us a transoid chain conformation is realized (the P—C—Si—S torsion angle is 177.0(2)°, the P...S distance is 5.010(5) Å). The main geometric parameters of molecules **2a** and **2b** are as follows: Si—S bond lengths are 2.035—2.048(2) Å; Si—C (in the chain), 1.979—1.986 (4) Å; P—C (in the chain), 1.825—1.830(4) Å; the S—Si—C bond angles (in the chain) are 114.1—116.9(1)°; Si—C—P, 115.6—117.9(5)°.

Experimental

Crystal unit cell parameters and intensities of reflections were measured on a Siemens P3/PC four-circle automatic diffractometer (T = −120 °C, λ(Mo-Kα), graphite monochromator, θ/2θ scanning, $2\theta_{max}$ = 54°). The structures were solved by the direct method and refined by the full-matrix least-squares method. Crystals of **2a** are rhombic, at T = −120 °C a = 9.881(5), b = 13.525(8), c = 15.691(9) Å, Z = 4, space group $P2_12_12_1$. R = 0.031, R_w = 0.035 from 1916 independent reflections with $I > 3\sigma(I)$. Crystals of the adduct of **2a** with Ph_3PS (1 : 1) are triclinic, at T = −120 °C a = 12.699(11), b = 12.779(8), c = 12.905(12) Å, α = 77.97(1), β = 70.90(1), g = 83,49(1)°, Z = 2, space group P. R = 0.071, R_w = 0.052 from 1604 independent reflections with $I > 3\sigma(I)$. Crystals of **2b** are monoclinic, at T = −120 °C a = 9.423(4), b = 15.048(5), c = 11.901(4) Å, β = 92.88(1)°, Z = 4, space group $P2_1/n$. R = 0.066, R_w = 0.056 from 2130 independent reflections with $I > 3.5\sigma(I)$. Crystals of a solvate of **3** with methanol are monoclinic, at T = −120 °C a = 11.595(5), b = 14.758(6), c = 15.780(6) Å, β = 90.42(1)°, Z = 4, space group $P2^1/n$. R = 0.042, R_w = 0.038 from 2530 independent reflections with $I > 3\sigma(I)$.

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Base-catalyzed cyclization of β-(2-arylaminoethoxy)styrenes

B. F. Kukharev,* V. K. Stankevich, and G. R. Klimenko

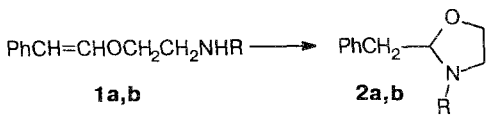
Irkutsk Institute of Organic Chemistry, Siberian Branch of the Russian Academy of Sciences, 1 ul. Favorskogo, 664033 Irkutsk, Russian Federation. Fax: +7 (395) 246 2952

β-(2-Arylaminoethoxy)styrenes undergo cyclization in the presence of KOH to give *N*-aryl-2-benzyloxazolidines in *ca.* 90 % yield. The structures of the products were confirmed by IR and NMR spectroscopy.

Key words: *N*-aryl-2-benzyloxazolidines, synthesis, β-(2-arylaminoethoxy)styrenes, base-catalyzed cyclization.

2-(Vinyloxy)ethylamines are known to undergo cyclization to give oxazolidines through the action of mild Lewis acids such as mercury chloride and acetate or palladium acetate.[1] When the nitrogen atom bears substituents that reduce its basicity (phenyl,[2] acetyl[3]), cyclization through the action of protic acids also becomes possible.

We have shown that the introduction of an aromatic substituent into position 2 of the vinyloxy group imparts to 2-(vinyloxy)ethylamines the previously unknown ability to undergo cyclization to yield oxazolidines through the action of bases:



1a,b **2a,b**

a: R = Ph
b: R = 4-MeC_6H_4

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Experimental

General procedure. 0.05 mol of *cis*-β-(2-arylaminoethoxy)styrenes (**1a,b**) was stirred with 0.01 mol of KOH for 1 h at 130 °C. The reaction mixture was cooled and oxazolidines (**2a,b**) were isolated by distillation *in vacuo*.

***N*-Phenyl-2-benzyloxazolidine (2a).** Yield 87 %. B.p. 192—198 °C (7 Torr), d_4^{20} 1.1127, n_D^{20} 1.6220. Found (%): C, 80.39; H, 7.11; N, 5.87. $C_{16}H_{17}NO$. Calculated (%): C, 80.30; H, 7.16; N, 5.85. IR, ν/cm^{-1}: 3075, 3050, 3015, 1600, 1575, 1495, 1175, 1100, 1090 (oxazolidine ring), 760, 730 (Ph). ^{1}H NMR ($CDCl_3$), δ: 2.93 (m, J_{AB} = 14.3 Hz, J_{AX} = 5.4 Hz, J_{BX} = 2.7 Hz, ABX system, 2 H, CH_2Ph); 3.34 (t, 2 H, CH_2N); 4.00 (t, 2 H, CH_2O); 5.34 (d.d, J_{AX} = 5.4 Hz, J_{BX} = 2.7 Hz, 1 H, OCHN); 6.64—7.28 (m, 10 H, 2 C_6H_5).

***N*-(*p*-Tolyl)-2-benzyloxazolidine (2b).** Yield 91 %. B.p. 202—205 °C (5 Torr), d_4^{20} 1.0968, n_D^{20} 1.6100. Found (%): C, 80.48; H, 7.62; N, 5.38. $C_{17}H_{19}NO$. Calculated (%): C, 80.60; H, 7.56; N, 5.53. IR, ν/cm^{-1}: 3080, 3060, 3010, 1605, 1560, 1505, 1495, 1165, 1105, 1080 (oxazolidine ring), 820, 795, 730, 685 (Ph, Ar). ^{1}H NMR ($CDCl_3$), δ: 2.24 (s, 3 H, CH_3); 2.88 (m, J_{AB} = 14.0 Hz, J_{AX} = 5.8 Hz, J_{BX} = 2.8 Hz, ABX system, 2 H, CH_2Ph); 3.32 (m, 2 H, CH_2N); 3.96 (t, 2 H, CH_2O); 5.27 (d.d, J_{AX} = 5.8, J_{BX} = 2.8 Hz, 1 H, OCHN); 6.52—7.25 (m, 9 H, C_6H_5, C_6H_4).

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