

In fact, carbamate II obtained by an alternative method is readily cyclized to oxazolidinone I by refluxing with triethylamine in acetonitrile.

**3-Tosyl-2-oxazolidinone (I).** A. A solution of 2.52 g (10 mmole) of phosgene tosylimine [3] in 15 ml of acetonitrile was added with stirring to a solution of 0.62 g (10 mmole) of ethylene glycol and 2.02 g (20 mmole) of triethylamine in 7 ml of absolute acetonitrile, after which the reaction mixture was stirred for 12 h at 20°C. The solvent was then removed in vacuo, the residue was extracted with hot benzene, and the extract was filtered. The solvent was removed by distillation, and the residue was recrystallized from ethanol to give 0.8 g (33%) of I with mp 189-190°C. The melting point and IR and PMR spectra were in agreement with the data presented in [4].

B. A solution of 0.97 g (12 mmole) of ethylene chlorohydrin in 5 ml of acetonitrile was added with stirring to a solution of 1.97 g (10 mmole) of tosyl isocyanate [5] in 20 ml of absolute acetonitrile, after which the reaction mixture was maintained at 20°C for 1 h. It was then treated with 1.01 g (10 mmole) of triethylamine, and the resulting mixture was refluxed for 1 h, cooled, and poured into water. The reaction product was removed by filtration, washed with water, dried, and recrystallized from ethanol to give 2.04 g (85%) of a product with mp 190-192°C.

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## SYNTHESIS OF SPIROSELENAPYRANS WITH A CONDENSED

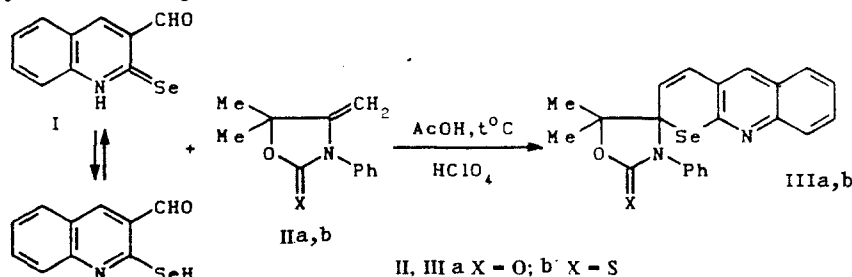
### QUINOLINE FRAGMENT

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Standard methods of synthesis based on the condensation of methylene bases or their precursors with heterocyclic o-hydroxy aldehydes lead to the formation of only noncyclic isomers of the merocyanine type [1].

The production of spiropyrans of the indoline series that include 2H-thiapyran and 2H-selenapyran rings condensed with a heterocyclic pyrazole ring has been accomplished only as a result of isomerization during thermal vacuum sputtering of their merocyanines on a solid support (quartz, glass, KBr plates) [2].

We were able to obtain new spiroseleapyrans III, which include a heterocyclic quinoline fragment condensed with a selenopyran ring, by refluxing 3-formyl-2-(1H)quinolineselenone (I) [3] and methylene bases II [4, 5] in glacial acetic acid in the presence of catalytic amounts of perchloric acid:



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The spirocyclic structure of the III obtained was confirmed by IR, UV, and PMR spectroscopic data. Signals of anisochronic methyl groups in the 5 position are observed separately in the PMR spectra; this is associated with the presence of an asymmetric spiro carbon atom in the molecules.

**Compound IIIa (C<sub>22</sub>H<sub>18</sub>N<sub>2</sub>O<sub>2</sub>Se).** This compound had mp 201-202°C (C<sub>2</sub>H<sub>5</sub>OH). IR spectrum (in mineral oil): 1748 ( $\nu_{C=O}$ ); 1633, 1601, 1586 cm<sup>-1</sup> ( $\nu_{C=C}$ ). UV spectrum (in 2-propanol),  $\lambda_{max}$ , nm (log  $\epsilon$ ): 275 (4.44), 350 (3.61). PMR spectrum (in CDCl<sub>3</sub>): 1.54 and 1.61 [3H each, s, C(CH<sub>3</sub>)<sub>2</sub>], 5.78 (1H, d,  $^3J_{CH=CH}$  = 11 Hz, 3'-H), 6.68 (1H, d,  $^3J_{CH=CH}$  = 11 Hz, 4'-H), 7.06-7.92 ppm (10H, m, arom.). The yield was 74%.

**Compound IIIb (C<sub>22</sub>H<sub>18</sub>N<sub>2</sub>OSSe).** This compound had mp 207-208°C (C<sub>2</sub>H<sub>5</sub>OH). IR spectrum (in mineral oil): 1633, 1613, 1577 cm<sup>-1</sup> ( $\nu_{C=C}$ ). UV spectrum (in 2-propanol),  $\lambda_{max}$ , nm (log  $\epsilon$ ): 272 (4.48), 344 (3.79). PMR spectrum (CDCl<sub>3</sub>): 1.64 and 1.72 [3H each, s, C(CH<sub>3</sub>)<sub>2</sub>], 5.84 (1H, d,  $^3J_{CH=CH}$  = 11 Hz, 3'-H), 6.68 (1H, d,  $^3J_{CH=CH}$  = 11 Hz, 4'-H), 7.08-7.94 ppm (10H, m, arom.). The yield was 70%.

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#### DIBENZO[b,f]TELLUREPANE

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Up until now, seven-membered heterocyclic compounds with one tellurium atom were unknown. We have synthesized the first representative of these compounds — dibenzo[b,f]tellurepane (I). This compound was obtained in 32% yield by treatment of an ether solution of 2,2'-dilithiodibenzyl (from 2,2'-dibromodibenzyl and butyllithium [1]) with TeI<sub>2</sub> with subsequent bromination of the reaction mixture and reduction of the resulting 5,5-dibromodibenzo[b,f]tellurepane (IIa) with sodium borohydride in ethanol.

