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 ($C_{22}H_{18}N_2O_2Se$). This compound had mp 201-202°C (C_2H_5OH). IR spectrum (in mineral oil): 1748 ($\nu_{C=O}$); 1633, 1601, 1586 cm⁻¹ ($\nu_{C=C}$). UV spectrum (in 2-propanol), λ_{max} , nm (log ε): 275 (4.44), 350 (3.61). PMR spectrum (in CDCl₃): 1.54 and 1.61 [3H each, s, C(CH₃)₂], 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 ($C_{22}H_{18}N_2OSSe$). This compound had mp 207-208°C (C_2H_5OH). IR spectrum (in mineral oil): 1633, 1613, 1577 cm⁻¹ ($\nu_{C=C}$). UV spectrum (in 2-propanol), λ_{max} , nm (log ε): 272 (4.48), 344 (3.79). PMR spectrum (CDCl₃): 1.64 and 1.72 [3H each, s, C(CH₃)₂], 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 TeI₂ with subsequent bromination of the reaction mixture and reduction of the resulting 5,5-dibromodibenzo[b,f]tellurepane (IIa) with sodium borohydride in ethanol.

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IIaX = Br; b X = CI; cX = I

Scientific-Research Institute of Physical and Organic Chemistry, Rostov State University, Rostov-on-Don 344104. Translated from Khimiya Geterotsiklicheskikh Soedinenii, No. 1, pp. 133-134, January, 1992. Original article submitted June 10, 1991.

- 5,5-Dihalodibenzo[b,f]tellurepanes IIa-c were obtained in high yields by oxidation of I in solution in CHCl₃ with halogens.
- **Dibenzo[b,f]tellurepane (I, C_{14}H_{12}Te).** This compound was obtained in the form of colorless crystals with mp 57°C (from hexane). PMR spectrum (d_6 -DMSO): 3.10 (s, 4H, CH₂), 7.00-7.80 ppm (m, 8H, C_6H_4).
- 5,5-Dibromodibenzo[b,f]tellurepane (IIa, $C_{14}H_{12}Br_2Te$). This compound was obtained in the form of yellow crystals with mp 271°C (dec., from chlorobenzene). PMR spectrum (d₆-DMSO): 3.77 (s, 4H, CH₂), 7.67-8.75 ppm (m, 8H, C₆H₄). The yield was 92%.
- 5,5-Dichlorodibenzo[b,f]tellurepane (IIb, $C_{14}H_{12}Cl_2Te$). This compound was obtained in the form of colorless crystals with mp 267°C (from chlorobenzene). PMR spectrum (d₆-DMSO): 3.42 (s, 4H, CH₂), 7.40-8.30 ppm (m, 8H, C_6H_4). The yield was 91%.
- 5,5-Diiododibenzo[b,f]tellurepane (IIc, $C_{14}H_{12}I_2Te$). This compound was obtained in the form of red crystals with mp 261°C (dec., from chlorobenzene). PMR spectrum (d₆-DMSO): 3.34 (s, 4H, CH_2), 7.20-8.10 ppm (m, 8H, C_6H_4). The yield was 92%.

The results of elementary analysis of I and II were in agreement with the calculated values.

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