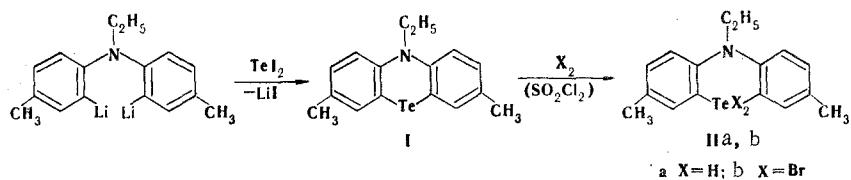


3,7-DIMETHYL-10-ETHYLPHENOTELLURAZINE — FIRST REPRESENTATIVE
OF PHENOTELLURAZINES

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The first representative of the previously undescribed tellurium-containing heterocycle phenotellurazine, viz., 3,7-dimethyl-10-ethylphenotellurazine (I), was synthesized in 48% yield by the reaction of 2,2'-dilithio-4,4'-dimethyl-N-ethyldiphenylamine (from 2,2'-dibromo-4,4'-dimethyl-N-ethyldiphenylamine and butyllithium in ether) with tellurium diiodide in an argon atmosphere. The light-yellow crystals had mp 89–90°C (from octane). PMR spectrum (CCl₄): 1.31 (t, 3H, CH₂CH₃), 2.27 (s, 6H, C—CH₃), 3.91 (q, 2H, CH₂CH₃), 6.96 (AB system, 4H, aromatic 1-H, 2-H, 8-H, and 9-H protons), and 7.35 ppm (s, 2H, aromatic 4-H and 6-H protons).



Treatment of an ether solution of I with an equimolar amount of sulfonyl chloride or bromine gave (in virtually quantitative yields) 5,5-dichloro- (IIa) [golden-yellow crystals with mp 265–267°C (from chlorobenzene)] and 5,5-dibromo-3,7-dimethyl-10-ethylphenotellurazine (IIb) [brick-red crystals with mp 256–258°C (from chlorobenzene)]. The results of elementary analysis of the compounds obtained were in agreement with the calculated values.

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