ACTION OF ETHYL MERCAPTAN ON TRIALLYBORON

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Translated from Izvestiya Akademii Nauk SSSR, Otdelenie Khimicheskikh Nauk, No. 11, p. 2068, November, 1960
Original article submitted August 10, 1960

We found that triallylboron reacts with ethyl mercaptan at -15°, and with equimolecular amounts of the reagents we obtained propylene and the ethyl ester of diallylthioboric acid in 62.5% of theoretical yield; b.p. 67-70° (11 mm); d_4 0.8419; n_D^{20} 1.4719. Found: C 62.70; H 10.05; B 6.86%; MR 51.24. $C_8H_{15}BS$. Calculated: C 62.36; H 9.81; B 7.02%; MR 51.28.

The action of 2 moles of ethyl mercaptan on 1 mole of triallylboron formed: 1) the diethyl ester of allylthioboric acid in 51.8% of theoretical yield; b.p. 62-64° (2 mm); d_4^{20} 0.9563; n_D^{20} 1.5182. Found: C 48.60; H 8.66; B 6.39%; MR 55.20. $C_7H_{15}BS_2$. Calculated: C 48.28; H 8.68 B 6.21%; MR 55.76. 2) the product from the addition of ethyl mercaptan to the double bond of the diethyl ester of allythioboric acid in 31.8% of theoretical yield; b.p. 133.5-134° (2 mm); d_4^{20} 1.0076; n_D^{20} 1.5312. Found: C45.97; H 8.91; B 4.58%; MR 72.57. $C_9H_{21}BS_3$. Calculated: C 45.75; H 8.96; B 4.58%; MR 73.47.

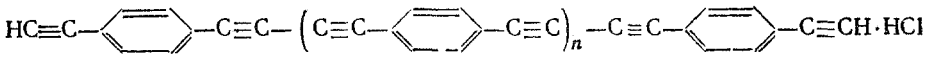
We established that the latter compound may be obtained in 77.4% of theoretical yield by mixing ethyl mercaptan with the diethyl ester of allylthioboric acid. Ethyl mercaptan is also capable of adding to the di-n-butyl ester of allythioboric acid to form the di-n-butyl ester of 2-ethylmercapto-n-propylboric acid with b.p. 104-106° (1.5 mm); d_4^{20} 0.9035; n_D^{20} 1.4514.

Found: C 60.22; H 11.18; B 4.20%; MR 77.62. $C_{13}H_{29}BO_2S$.
Calculated: C 59.99; H 11.23; B 4.16%; MR 77.44.

CORRECTIONS

In No. 5 (1960) p. 811, the expression in the third column of the table should read: [$k.10^{13}$] in $cc \cdot sec^{-1}$.

On p. 951 the first formula from the top should read:



In No. 10 on p. 1821 formula (II) should read: