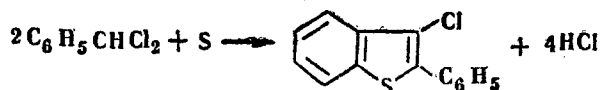


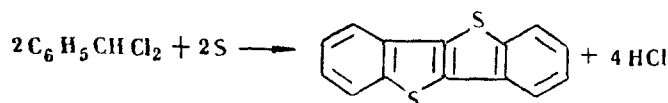
The product of reaction of sulfur with p-chlorobenzyl bromide under the same conditions is the hitherto unknown compound tetrakis-p-chlorophenylthiophene (yield 25-30%). Found: C 63.51; H 3.20; S 6.23; Cl 26.79%. Calculated for $\text{C}_{28}\text{H}_{16}\text{Cl}_4\text{S}$: C 63.87; H 3.05; S 6.09; Cl 26.99%.

Benzylidene chloride reacts with sulfur at 220-250° to give II (yield 51%)



This compound, also previously undescribed, melts at 64°. Found: C 68.5; H 3.54; S 13.28; Cl 14.23%. Calculated for $\text{C}_{14}\text{H}_9\text{SCl}$: C 68.70; H 3.70; S 13.10; Cl 14.48%.

When sulfur reacts with benzylidene chloride at higher temperatures (250°-300°) III is formed, the yield exceeding 60% (m.p. 215°).



Benzylidene bromide reacts similarly with sulfur, but the yield of III is under 10%.

Unlike the mono- and dichloro-derivatives, benzotrichloride undergoes practically no reaction with sulfur when they are heated together for a long time at 225-240°.

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SYNTHESIS OF PYRIMIDO[4, 5-b][1, 4]THIAZINE DERIVATIVES

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The pyrimido[4, 5-b][1, 4]thiazine system is practically uninvestigated, the only method described being the synthesis of certain 5H, 7H-pyrimido[4, 5-b][1, 4]thiazoles-6 (see [1, 2]). With a view to obtaining derivatives of the pyrimido[4, 5-b][1, 4]thiazine system, a study is being made of the reaction of 5-amino-6-mercaptopyrimidines with α -halogenoketones.

Reacting 4-methoxy-5-amino-6-mercaptopyrimidine with α -bromoacetophenone and its p-bromo derivative gives, respectively: 4-methoxy-6-phenyl- and 4-methoxy-6(p-bromophenyl)pyrimido[4, 5-b][1, 4]thiazines (I and II). Reaction of 2, 5-diamino-4-methyl-6-mercaptopyrimidine with chloroacetone, α -chloroethylmethyl ketone, bromoacetophenone, and its p-bromo- and p-nitro derivatives gives the corresponding 2-amino-4-methyl-6-alkyl(aryl)pyrimido[4, 5-b][1, 4]thiazines (III-VII).

4-Methoxy-6-phenylpyrimido[4, 5-b][1, 4]thiazine (I) m.p. 176-178° (from ethanol). Found: C 60.84; H 4.51; N 16.23; S 12.43%. $\text{C}_{13}\text{H}_{11}\text{N}_3\text{OS}$. Calculated: C 60.68; H 4.32; N 16.33; S 12.46%.

4-Methoxy-6-(p-bromophenyl)pyrimido[4, 5-b][1, 4]thiazine (II) m.p. 175-177° (from ethanol). Found: C 46.50; H 2.98; Br 23.80; N 12.55; S 9.66%. $\text{C}_{13}\text{H}_9\text{BrN}_3\text{OS}$. Calculated: C 46.44; H 2.99; Br 23.77; N 12.50; S 9.54%.

2-Amino-4, 6-dimethylpyrimido[4, 5-b][1, 4]thiazine (III) m.p. 223-224° (from dimethylformamide). Found: C 49.49; H 5.04; N 29.04; S 16.42%. $\text{C}_8\text{H}_{10}\text{N}_4\text{S}$. Calculated: C 49.45; H 5.20; N 28.83; S 16.50%.

2-Amino-4, 6, 7-trimethylpyrimido[4, 5-b][1, 4]thiazine (IV) m.p. 200-202.5° (from ethanol). Found: C 52.15; H 5.97; N 26.91; S 15.24%. $\text{C}_9\text{H}_{12}\text{N}_4\text{S}$. Calculated: C 51.89; H 5.80; N 26.90; S 15.39%.

2-Amino-4-methyl-6-phenylpyrimido[4, 5-b][1, 4]thiazine (V) m.p. 281-282° (from ethanol). Found: C 60.60; H 4.55; N 22.15; S 12.41%. $\text{C}_{13}\text{H}_{12}\text{N}_4\text{S}$. Calculated: C 60.91; H 4.72; N 21.86; S 12.51%.

2-Amino-4-methyl-6-(p-bromophenyl)pyrimido[4,5-b][1,4]thiazine (VI) m.p. 240-242° (from ethanol-dimethylformamide 2:1). Found: C 46.29; H 3.20; Br 23.62; N 16.91; S 9.67%. $C_{13}H_{11}BrN_4S$. Calculated: C 46.57; H 3.08; Br 23.84; N 16.71; S 9.56%.

2-Amino-4-methyl-6-(p-nitrophenyl)pyrimido[4,5-b][1,4]thiazine (VII) m.p. > 300° (from dimethylformamide). Found: C 51.52; H 3.66; N 22.91; S 10.65%. $C_{13}H_{11}N_3O_2S$. Calculated: C 51.81; H 3.68; N 23.37; S 10.64%.

A paper on preparing I and its 4-hydrazino derivative appeared before this letter was sent to the Editor [3].

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