2-Methyl-5-[(3-ethyl-2-benzothiazolinylidene)methylidyne]thiazolo[4,3-b][1,3,4]thiadiazolium Iodide (VII). A mixture of 0.16 g (5 mmole) of III ($R = R' = CH_3$, X = I), 0.17 g (5 mmole) of 2-methylbenzothiazole ethyltosylate, 5 ml of absolute alcohol, 0.05 g of acetic anhydride, and 0.05 g of triethylamine was heated at 100° for 20 min, after which the dye was removed by filtration and washed with alcohol.

The characteristics of this dye and the other synthesized dyes are presented in Table 2.

2-Phenyl-5-[(3-ethyl-2-benzothiazolinylidene)methylidyne]thiazolo[4,3-b][1,3,4]thiadiazolium Iodide (VIII). This dye was obtained as in the preceding experiment from III ($R = C_6H_5$, $R' = CH_3$, and X = I).

3-Ethyl-5-(2-methylthiazolo[4,3-b][1,3,4]-2-thiadiazolinylidene)thiazolidene-2-thion-4-one (IX). This compound was obtained by heating 0.33 g (1 mmole) of III ($R = R' = CH_3$, X = I) with 0.16 g (1 mmole) of ethylrhodanine in 8 ml of absolute alcohol containing 0.1 g of triethylamine at 80° for 15 min.

3-Allyl-5-(2-phenylthiazolo[4,3-b][1,3,4]-2-thiadiazolinylidene)thiazolidine-2-thion-4-one (X). This compound was obtained by heating 0.19 g (0.5 mmole) of III ($R = C_6H_5$, $R' = CH_3$, and X = I) and 0.09 g (0.5 mmole) of N-allylrhodanine in 10 ml of absolute alcohol and 2 ml of DMF containing 0.05 g of triethylamine at 100° for 15 min.

5-(p-Dimethylaminostyryl)-2-methylthiazolo[4,3-b][1,3,4]thiadiazolium Perchlorate (XI). A mixture of 0.09 g (0.3 mmole) of VI, 0.05 g (0.3 mmole) of p-dimethylaminobenzaldehyde, and 3 ml of acetic anhydride was heated at 100° for 1 h.

5-Methyl-2-[(2-methylthiazolo[4,3-b][1,3,4]thiadiazolinylidene)propenyl]thiazolo[4,3-b][1,3,4]thiadiazolium Perchlorate (XII). This compound was obtained by heating 0.16 g (0.6 mmole) of VI, 0.13 g (0.6 mmole) of ethyl orthoformate, 2 ml of pyridine, and 0.12 g of acetic anhydride at 100° for 40 min.

2,5-Bis(3-ethyl-2-benzothiazolinylidene)thiazolo[4,3-b][1,3,4]thiadiazolium Perchlorate (XIII). This compound was obtained by heating a mixture of 0.13 g (0.5 mmole) of VI, 0.22 g (0.5 mmole) of 2,2'-acetanilidovinyl-3-ethylbenzothiazolium iodide, 1 ml of acetic anhydride, and 0.05 g of triethylamine at 100° for 30 min.

5-Ethylthio-2-(3-methylthiazolinylidenemethylidyne)thiazolo[4,3-b][1,3,4]thiadiazolium Iodide (XIV). A mixture of 0.34 g (0.1 mmole) of III ($R = R' = CH_3$, X = I), 0.3 g (1 mmole) of 2-methylthio-3-methylbenzothiazolium methylsulfate, 0.1 g of acetic anhydride, 0.1 g of triethylamine, and 2 ml of absolute alcohol was refluxed for 20 min, after which the dye was removed by filtration.

5-Ethylthio-2-(3-ethyl-2-benzothiazolinylidene)propenylthiazolo[4,3-b][1,3,4]thiadiazolium Tetrafluoroborate (XV). A mixture of 0.5 g (1 mmole) of III ($R = R' = CH_3$, $X = BF_4$), 0.45 g (1 mmole) of 2,2'-anilidovinyl-3-ethylbenzothiazolium iodide, 2 ml of pyridine, 0.1 ml of acetic anhydride, and 0.1 g of triethylamine was refluxed for 1 h, after which the dye was removed by filtration and washed with alcohol.

2-(2-Methylthiazolo[4,3-b][1,3,4]-5-thiadiazolylidenemethylidyne)-5-ethylthiothiazolo[4,3-b][1,3,4]thiadiazolium Tetrafluoroborate (XVI). This compound was obtained by refluxing a mixture of 0.16 g (0.05 mmole) of III ($R = R' = CH_3$, $X = BF_4$), 0.5 g of acetic anhydride, and 0.05 g of triethylamine for 30 min. The dye was precipitated by the addition of ether to the reaction mixture.

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