

SYNTHESIS AND PROPERTIES OF STABLE QUINONE METHIDE IMINES,
4-(1,3-DITHIOL-2-YLIDENE)-2,5-CYCLOHEXADIEN-1-IMINES

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Synthesis and spectroscopic properties of stable quinone methide imines were reported.

The reaction of 2,6-diethylaniline with 2 molar amounts of 1,3-benzodithiolylium tetrafluoroborate in acetonitrile at room temperature gave 2-(4-amino-3,5-diethylphenyl)-1,3-benzodithiolylium tetrafluoroborate (1a) as deep green crystals in 75% yield. Treatment of 1a with 1,8-diazabicyclo[5.4.0]-7-undecene (DBU) in acetonitrile afforded the stable quinone methide imine, 2,6-diethyl-4-(1,3-benzodithiol-2-ylidene)-2,5-cyclohexadien-1-imine (2a), as orange crystals in 61% yield.

2-Methylthio-1,3-dithiolylium iodide reacted with 2,6-diethylaniline in boiling acetonitrile, giving rise to 2-(4-amino-3,5-diethylphenyl)-1,3-dithiolylium iodide (1b) in 51% yield. Treating 1b with DBU in acetonitrile gave the quinone methide imine, 2,6-diethyl-4-(1,3-dithiol-2-ylidene)-2,5-cyclohexadien-1-imine (2b) in 72% yield.

A variety of stable quinone methide imines were prepared in similar ways.

