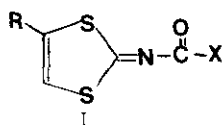


SYNTHESIS OF 2-SUBSTITUTEDIMINO-1,3-DITHIOLES, 2-SUBSTITUTEDIMINO-1,3-THIASELENOLAS AND 2-SUBSTITUTEDIMINO-1,3-DISELENOLAS.

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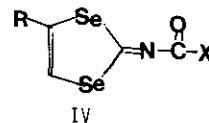
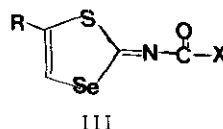
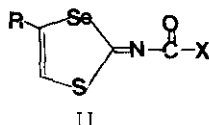
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The synthesis of 5-substituted-2-carbethoxyimino-1,3-thiaselenoles in low yield was previously reported (1). In the present work a general one step method for the preparation of 4-alkyl (or aryl)-2-substitutedcarbonylimino-1,3-dithioles (I), 4-alkyl (or aryl)-2-substitutedcarbonylimino-1,3-thiaselenoles (II), 5-alkyl (or aryl)-2-substitutedcarbonylimino-1,3-thiaselenoles (III) and 4-alkyl (or aryl)-2-substitutedcarbonylimino-1,3-diseleoles (IV) in moderate to high yield is reported.



R= Alkyl, aryl

X= OEt, CH₃, aryl



R-C≡C-SK

V

Y=C=N-CO-X

VI

R-C≡C-SeK

VII

The reaction of potassium 2-alkyl (or aryl)ethynethiolate (V) with isothiocyanates (VI, Y=S) or isoselenocyanates (VI, Y=Se) in tetrahydrofuran gave compounds I or II respectively. The reaction of potassium 2-alkyl (or aryl)ethyneselenolate (VII)(2) with VI (Y=S) or VI (Y=Se) gave compounds III or IV respectively.

References

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- 2) I. Lalezari, A. Shafiee and M. Yalpani, *J. Org. Chem.*, **38**, 338 (1973).