DIELS-ALDER REACTION OF ENAMINODITHIOCARBOXYLATE DERIVATIVES WITH DIMETHYL ACETYLENEDICARBOXYLATE.

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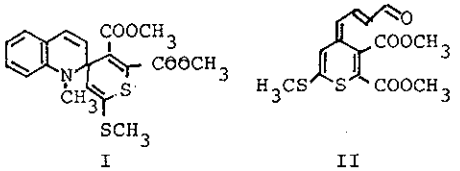
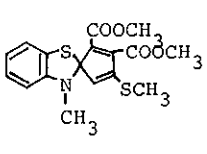
It is reported the Diels-Alder reaction of enaminodithiocarboxylate derivatives having a heterocyclic compound with dimethyl acetylenedicarboxylate gave the corresponding Diels-Alder reaction product in good result; 2,3-dimethoxycarbonyl-6-methylthio-4H-thiapyrane-4-spiro-2-(1,2-dihydro-1-methylquinoline) (I) from 1,2-dihydro-1-methyl-2-[(methylthio)thiocarbonylmethylene]quinoline , opening 4-(3-formylprop-2-enylidene)-6-methylthio-2,3-dimethoxycarbonyl-4H-thiapyrane (II) from 1,2-dihydro-1-methyl-2-[(methylthio)thiocarbonylmethylene]pyridine, desulfrized 2,3-dimethoxycarbonyl-4-methylthio-2,4-cyclopentadiene-1-spiro-2-(2,3-dihydro-3-methylbenzothiazole) (III) from 2,3-dihydro-3-methyl-2-[(methylthio)thiocarbonylmethylene]benzothiazole and double 1,4- and 1,2-cycloadded 1a,2a,3,8-tetrahydro-1,2,2',3'-tetramethoxycarbonyl-3-methyl-6-methylthio-cyclobut-1-eno[1,2-b]quinoline-8-spiro-4-thiapyrane (IV) from 1,4-dihydro-1-methyl-4-[(methylthio)thiocarbonylmethylene]quinoline. Under a similar condition, 2,3-dimethylisoquinolinium-4-dithiocarboxylate reacted with dimethyl acetylenedicarboxylate to give 1,4-dipolar and the usual Diels-Alder reaction product, 1,4a,6,10b-tetrahydro-3,4-11,12-tetramethoxycarbonyl-4a,5-dimethyl-1-thioxo-5,10b-ethenothiapyrano[4,3-c]isoquinoline(V)



I

II



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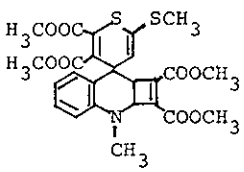
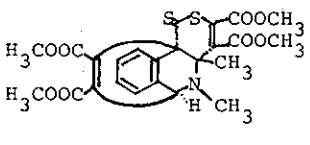


IV



V