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التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

بالرسالة صفحات لم ترد بالأصل

بعض الوثائق الأصلية تالفة

SYNTHESIS OF CONDENSED HETEROCYCLIC COMPOUNDS CONTANING NITROGEN

A THESIS

Submitted to the Faculty of Science

Menoufia University

in partial Fulfilment for the

Degree of M.Sc.

By

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SUMMARY

This thesis includes three chapters; the first of which is a brief review on the recent methods utilized for the synthesis of various heterocycles condensed with the thieno [2,3-d]pyrimidine ring.

Chapter II is the discussion and results of the work carried out by the candidate. It deals with the versatility and regio selectivity of the annelation of a triazole ring to the thieno [2,3-d]pyrimidine.

Reaction of the hydrazine 115 with acetic acid resulted in the formation of two products as indicated by TLC and with time one of them was transformed to the other one. The disappeared product was considered to be the hydrazide 118 which can be isolated after 10 min. On the other hand, upon prolonged heating for 18h, the hydrazide 118 underwent a dehydrative cyclization to give a product whose structure may be given either the angular 120 or the linear 122 as a consquence of involving N-1 or N-3, respectivelly in the cyclization process. The formation of a mixture of 120 and 122 was not considered, since one of the components of the mixture at an earlier stage of the reaction has been transformed to the other one. Moreover, the structure of the product should not be the one derived from the Dimroth rearrangment of either 120 or 122, because the action of alkali on the final product caused its rearrangement to an isomer which can be given the structure 124 or 126; otherwise the product from the reaction of 115 with acetic acid should not be changed by alkali if it has the structure 124 or 126.

Methylation of 120 gave 129 which can be rearranged by alkali to give 130.

The hydrazones 127 and 128 were prepared by the reaction of 115 with acetaldehyde and benzaldehyde, respectively.

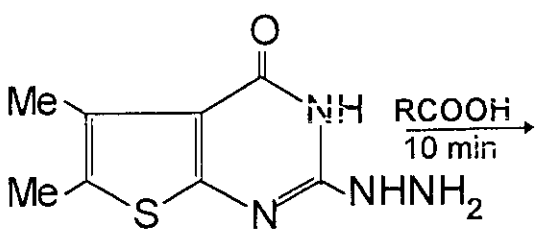
Condensation of the hydrazine 115 or 116 with the mono saccharides, D-arabinose, D-xylose, D-galactose, and D-mannose, gave the corresponding hydrazones 131a-d and 132a-d.

Treatment of compounds 131 and 132 with acetic anhydride in pyridine gave the acetylated sugar hydrazones.

Reaction of the hydrazones 131 and 132 with a solution of iron chloride gave triazolopyrimidines 139 and 140, respectively.

The structure of the new products was elucidated and confirmed by, ^{1}H-NMR, ^{13}C-NMR , MS and IR spectroscopy in addition to elemental analyses.

chapter III deals with the experimental part of the work. The thesis ends with the references.



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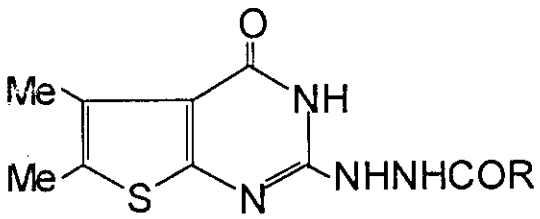

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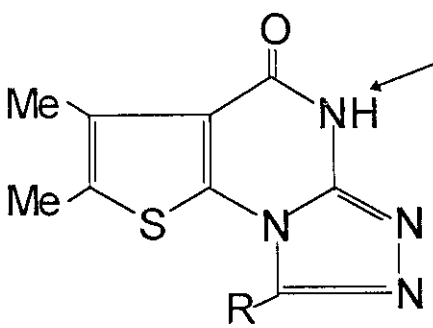
118 R=Me



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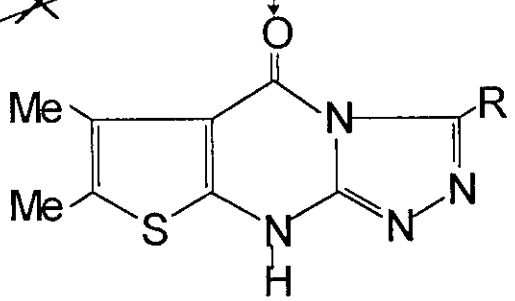

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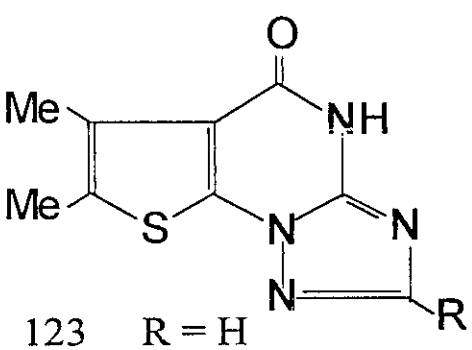
KOH



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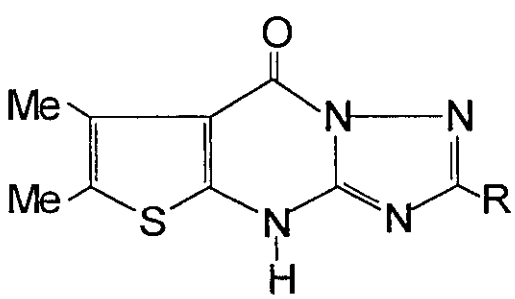
KOH



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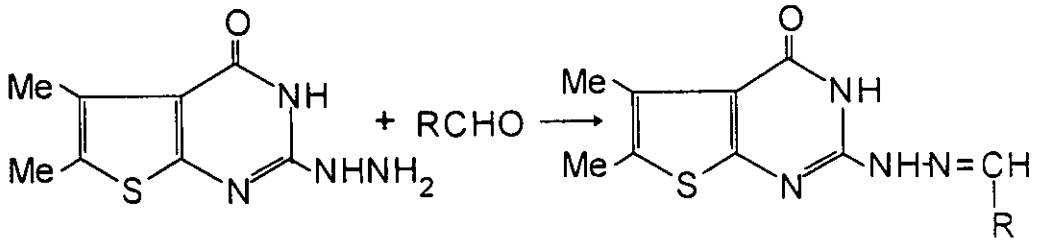

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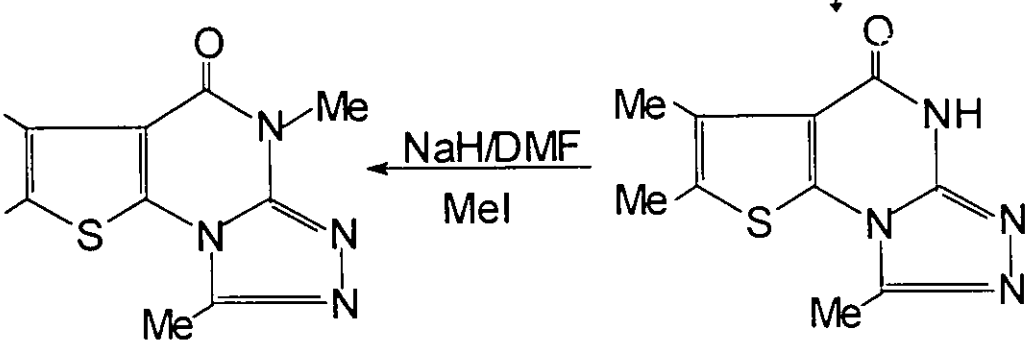
128 R = ph



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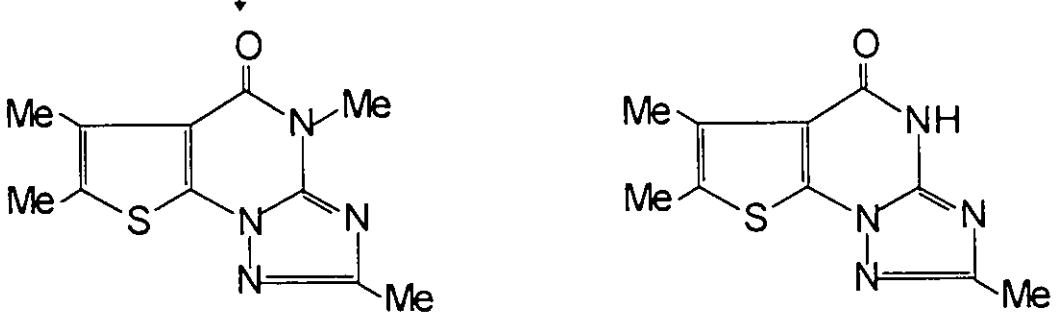

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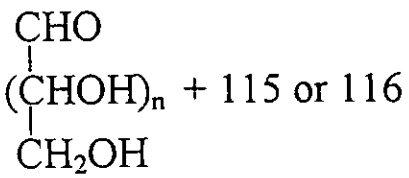
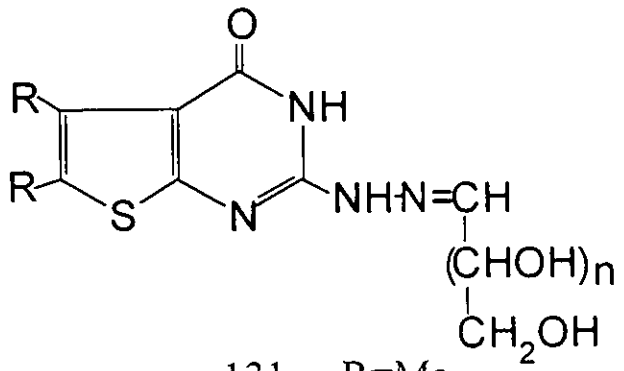


+ 115 or 116



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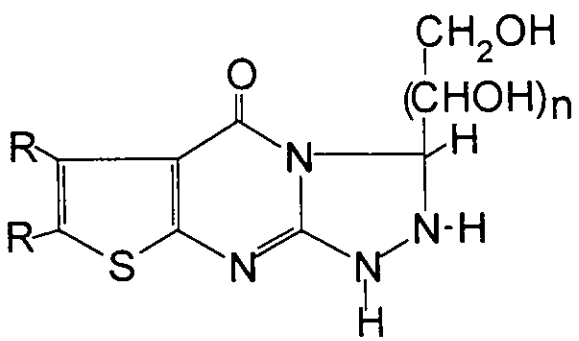

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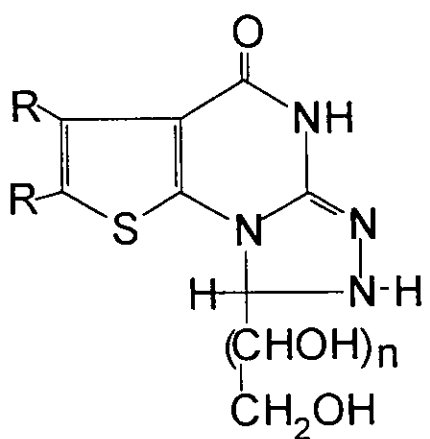

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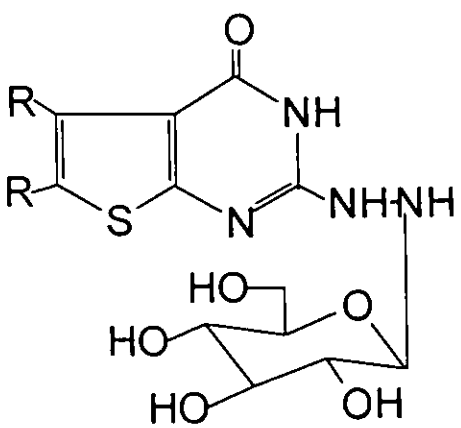

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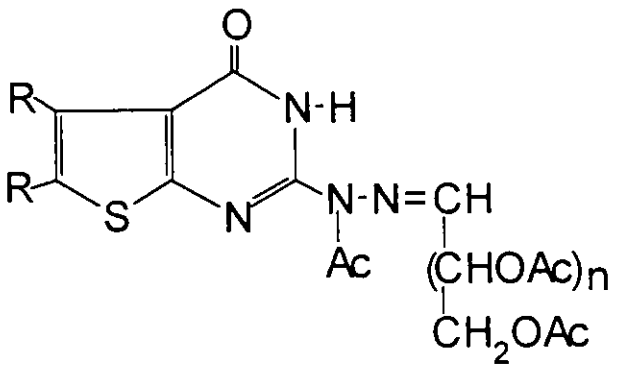

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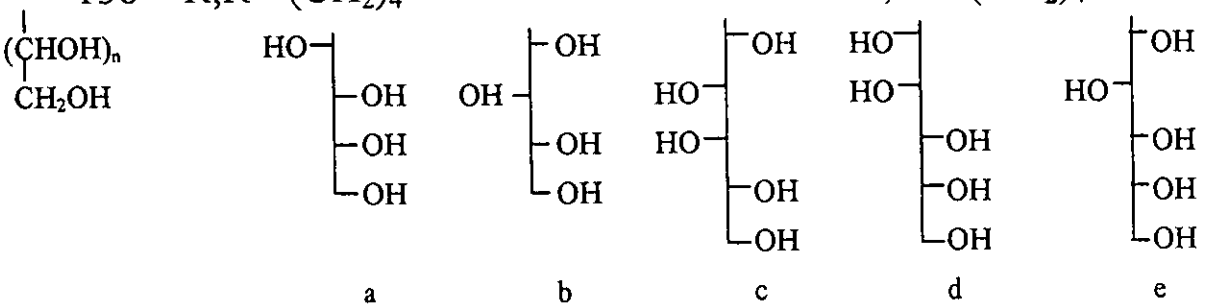
138 R,R=-$(CH_2)_4$

139 R=Me

140 R,R=- $(CH_2)_4$



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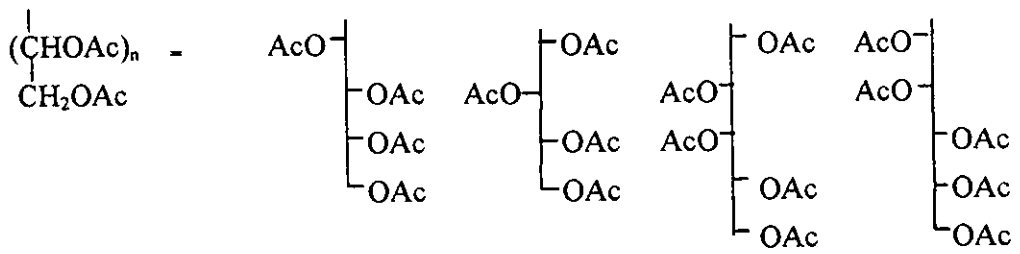

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