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ACAD. S.Yu. YUNUSOV INSTITUTE OF THE CHEMISTRY
OF PLANT SUBSTANCES

INTERNATIONAL SCIENTIFIC
CONFERENCE

**Actual Problems of the
Chemistry of Natural Compounds**

ABSTRACTS

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TARGETED SYNTHESSES OF SOME NOVEL (E)-1-(4-CHLOROBENZYLIDENE)-2-HETERYLHYDRAZINES

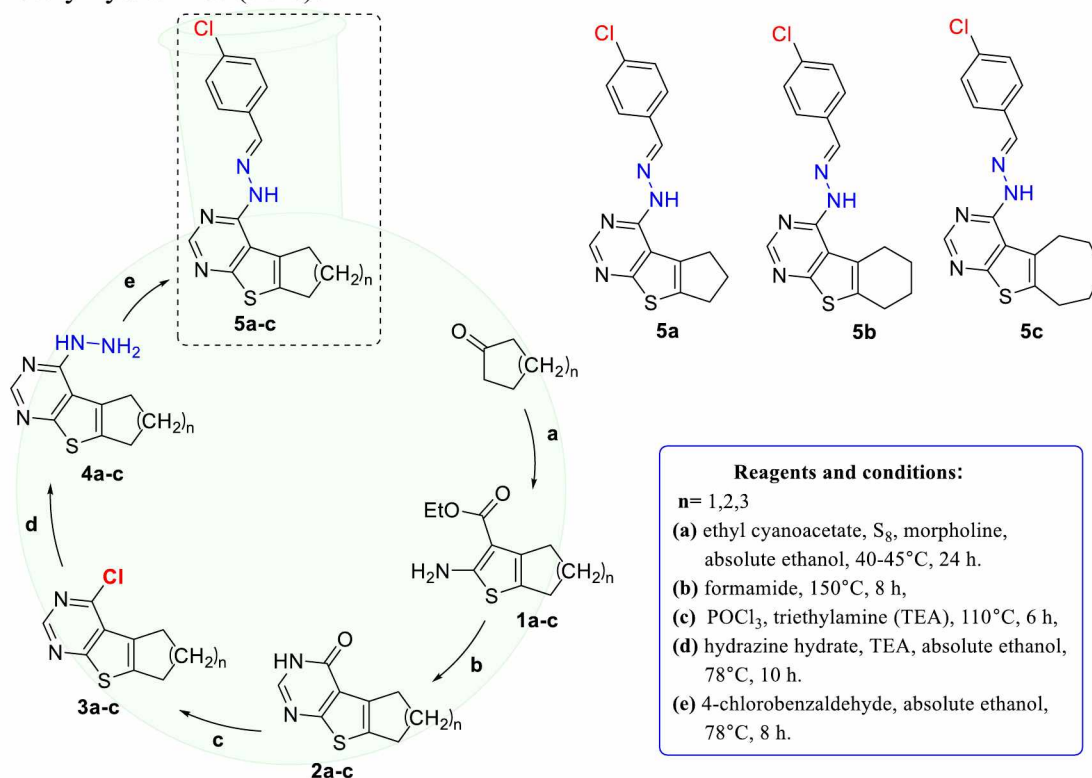
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Thienopyrimidines (TPs) is a biologically important heterocyclic compounds and attracting attention in medicinal chemistry research since last two decades due to its diverse range of biological activities. An intensive literature review on TPs and its derivatives revealed that they were found to possess different biological activities such as antitumor, antimicrobial, anti-inflammatory, tyrosine kinase and phosphodiesterases and most of them were patented.

Moreover, TPs have fascinated importance in medicinal chemistry, exhibiting pharmacological and therapeutic properties such as antidepressant, antihypertensive, herbicidal and plant growth regulatory properties. Particularly, 4-substituted amino and hydrazino-TPs was determined excellent, almost equivalent to that of standards (compared to as potent anticancer drugs), where the presence of electron donating substituent on both sides of thienopyrimidine ring enhances the activity and electron withdrawing groups decrease. Also, 4-chlorothieno[2,3-d]pyrimidine is one of the intermediates for synthesizing anticancer drugs.

In view of the biological importance and the past research of the TPs and its derivatives, it is worthwhile to synthesize some novel (E)-1-(4-chlorobenzylidene)-2-heterylhydrazines (**5a-c**):



A systematic approach to the synthesis of targeted compounds was described above.