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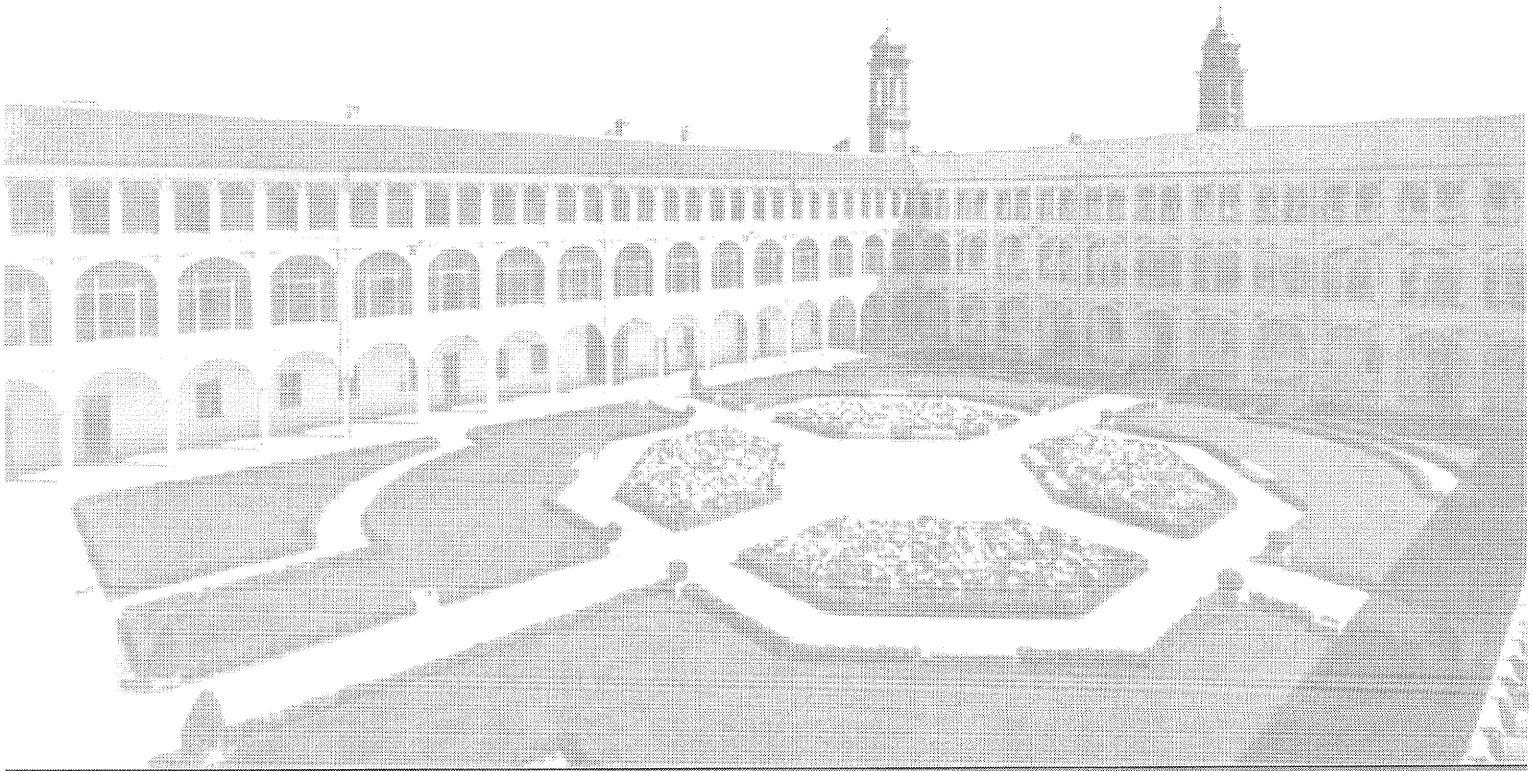
NUOVE PROSPETTIVE IN CHIMICA FARMACEUTICA

ABSTRACT BOOK



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2-Substituted-[1,3]thiazolo[4,5-e]isoindoles as kinases inhibiting compounds

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Condensed thiazoles have been widely investigated as potential drugs. Among these, benzothiazoles in the past two decades have been largely studied for their remarkable anticancer activity.[1] Tricyclic compounds incorporating the thiazole nucleus such as thiazolyl-dihydro-indazoles **1** are described as kinases inhibiting compounds. This class of compounds has received great attention in the last few years for the potent inhibitory effect toward kinases, and many compounds have been covered by patents.[2,3] We have previously reported the synthesis of heterocycles in which a six membered ring, in particular a pyridine,[4] a pyrane,[5] or a pyrimidine[6] moiety is annelated to the isoindole system with interesting antitumor properties. In the light of the potent activity showed by thiazole compounds, we thought to synthetize a new class of tricyclic dihydro-4*H*-[1,3]thiazolo[4,5-*e*]isoindoles of type **2** to evaluate their antitumor properties and their inhibitory activity toward kinases. Our synthetic approach consisted in the annelation of the thiazole core on the isoindole ring, using α-halogenated ketones. Evaluation of the antiproliferative activity of the new compounds was performed at the NCI of Bethesda on a panel of about 60 tumor cell lines. Six compounds showed antiproliferative activity in the micromolar-submicromolar range, making this class of compounds very promising. Results will be discussed.

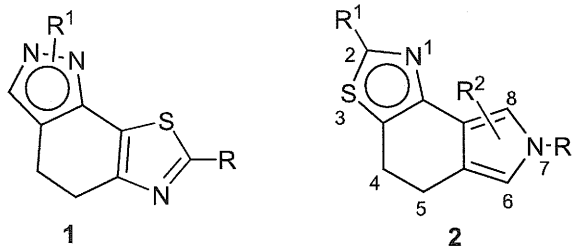

Figure 1. General structures of compounds **1**,**2**.

References

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