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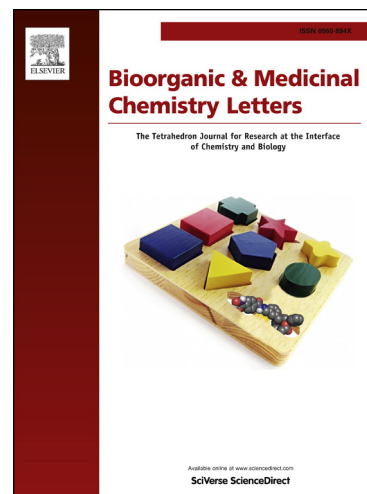
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Identification of a novel class of Quinoline-Oxadiazole hybrids as anti-tuberculosis agents

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Abstract:

A series of novel quinoline-oxadiazole hybrid compounds was designed based on stepwise rational modification of the lead molecules reported previously, in order to enhance bioactivity and improve druglikeness. The hybrid compounds synthesized were screened for biological activity against *Mycobacterium tuberculosis* H₃₇Rv and for cytotoxicity in HepG2 cell line. Several of the hits exhibited good to excellent anti-tuberculosis activity and selectivity, especially compounds 12m, 12o and 12p, showed minimum inhibitory concentration values < 0.5 μ M and selectivity index >500. The results of this study open up a promising avenue that may lead to the discovery of a new class of anti-tuberculosis agents.

Keywords:

Mycobacterium tuberculosis; Isosterism; Oxadiazole; Quinoline; Bedaquiline.

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