



Vali-e-Asr University  
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## Solvent-free synthesis of 1,3-Oxazolines via multicomponent reaction of alkylbromide

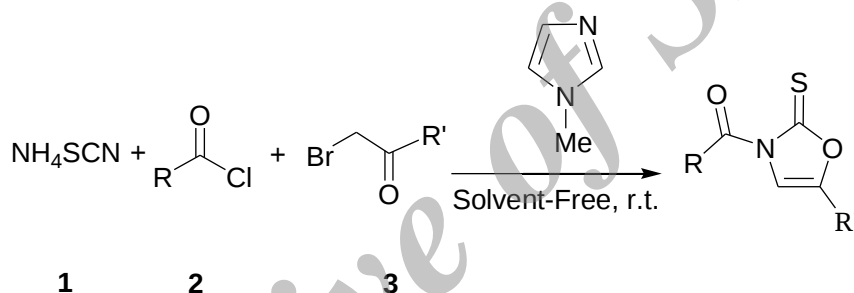
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1,3-Oxazolines represent a simple heterocyclic frame which has been scarcely explored compared to the non-aromatic counterpart 1,3-oxazolidine structure. Surprisingly for this simple heterocycle, only basic structures related to acetol have been converted into 1,3-oxazoline-2-thiones [1, 2]. Synthesis of 1,3-oxazolines were reported using either condensation of thiocyanic acid [3-6] or isothiocyanates [7] with an  $\alpha$ -hydroxycarbonyl, or condensation of thiophosgen with an aminoketone [8]. The possible balance of reactivity of  $\alpha$ -hydroxycarbonyl systems with thiocyanic acid toward the formation of 1,3-oxazoline have been recently reported.

Thus, the reaction of ammonium thiocyanate **1**, acid chlorides **2**, alkylbromide **3** in the presence of *N*-methylimidazole under solvent-free conditions, produced 1,3-oxazolines **4** in good yields.



### References

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