A new route to the synthesis of pyrimido[4',5':4,5]thiazolo[3,2-a] benzimidazol-4(3H)-one derivatives

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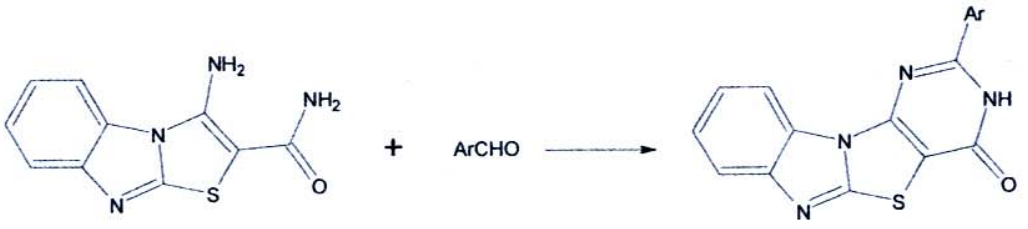
Pyrimido[4',5':4,5]thiazolo[3,2-a]benzimidazoles as potential biologically active heterocycles have been the subject of recent studies [1-2]. To the best of our knowledge, heterocyclisation of 3-aminothiazolo[3,2-a]benzimidazol-2-carboxamide (1) with aromatic aldehydes (2) under acidic conditions has not been reported in the literature.

In connection with our interest in the synthesis of fused heterocyclic compounds [3-5], we wish to report herein a convenient synthesis of some pyrimido[4',5':4,5] thiazolo[3,2-a]benzimidazoles (3) through cyclocondensation reaction of 3-aminothiazolo [3,2-a]benzimidazol-2-carboxamide (1) with aromatic aldehydes (2) under acidic conditions followed by air oxidation.



(1) (2) (3)

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