SYNTHESIS OF TETRA- AND PENTA-HETEROCYCLIC COMPOUNDS INCORPORATED ISOQUINOLINE MOIETY

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Abstract
7-Amino-2,3-dimethoxy-9-phenyl-5,6,9,6a-tetrahydropyridino[2,1-a]isoquinoline-8,10-dicarbonitrile 5 was prepared via Michael addition reaction of benzylidenemalononitrile 2 with isoquinoline-1-carbonitrile 1. Reaction of 5 with triethyl orthoformate and formamide led to the formation of the corresponding 4-ethoxymethylene and 4-aminopyrimidine derivatives of benzo[a]quinolizines 6 and 7, respectively. Compound 6 reacted with hydrazine to give imino-amino compound 8. The latter compound reacted with formic acid, triethyl orthoformate, acetic anhydride or benzoyl chloride to give the triazolopyrimidine derivatives 9, 10 and 11, respectively. Compound 8 reacted with hydrazonoyl halides 12, 13 and diethyl oxalate to give triazinopyrimidine and triazolopyrimidine derivatives 16, 17 and 20, respectively.

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