

الاسم :- د. محمد جمعة علي بدري
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البريد الالكتروني: - mgb00@fayoum.edu.eg

١. عنوان البحث

2-Amino-5-hydroxy-4-phenyl-7-methyl-4H[1-chromeno-3-carbonitrile as a key precursor for the synthesis of several chromene based heterocyclic systems

Authers

F.K.Mohammed, A.Y.Soliman, A. Ssawy and M.G.Badre

Abstract

Synthesis of 2-amino-5-hydroxy-4-phenyl-7-methylchromeno-3-carbonitrile. 1 obtained by the reaction of 5-methyl resorcinol and benzyldine malonitrile used in synthetic routes to several heterocyclic compounds containing pyrimidine, pyridine, chromene, oxazine, thiazine and pyrrol by reaction of 1 with various reagents such as formamide, formic acid, phenylisothiocyanate, urea, thiourea, semicarbazide thiosemicarbazide to give chromenopyrimidine derivatives 2, 3, 4, 9, 10a,b, 11a,b respectively. The reaction of 1 with acetic anhydride under different conditions to give 5, 6, 7 followed by reactions with hydrazine hydrates, formamide, hydroxylamine hydrochloride to give chromenopyrimidine derivatives 8a-c. The interaction between 1 with cyclohexane, malonitrile, carbon disulfide gave 12, 13, 14 which was cyclised to give thiazine15 and the O-alkylation of 1 by using ethylbromoacetate or chloroacetonitrile to give 16a,b and chromenopyrrol derivatives 17.

Key words : Pyrimidinochromene, pyridinochromene, oxazinochromene, thiazinochromene, pyrrolochromene