

Convenient synthesis of some new pyrazolo[1,5-*a*]pyrimidine, pyridine, thieno[2,3-*b*]pyridine, and isoxazolo[3,4-*d*]pyridazine derivatives containing benzofuran moiety

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Abstract

Pyrazolo[1,5-*a*]pyrimidines, pyrazoles, and thieno[2,3-*b*]pyridine were synthesized from sodium salt of 5-benzofuran-2-yl-3-hydroxypropanone and the appropriate of heterocyclic amines, diazonium chloride, and 1,3-dicarbonyl compounds. Pyrimidino[4,5 :4,5]thieno[2,3-*b*]pyridine, 1,2,3,4-tetrazolo[1,5 :6,1]-pyrimidino[4,5 :4,5]thieno[2,3-*b*]pyridine and pyridino[2,3 :2,3]thieno[4,5-*d*]1,2,4-triazolo[4,3-*e*]pyrimidine derivatives were synthesized from 6-benzofuran-2-yl-2-thioxohydropyridine-3-carbonitrile and each of formic acid or formamide. Structures of the newly synthesized were established by elemental analysis and spectral data. *J. Heterocyclic Chem.* (2009).

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