

Synthesis, Characterization and Bioactivities of Fused Pyrimidobenzothiazol-4-one

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Abstract: Heterocyclic compounds are an important class of basic building blocks, being used by chemists to create compounds of biological or medical relevance. Various heterocyclic building blocks are used in medicinal research, agriculture, and medication discoveries. Considering the significance of heterocyclic ring-containing molecules, 2-amino-6-cyanobenzothiazole is combined with ethylacetoacetate in the presence of polyphosphoric acid to form 8-cyano-2-methyl-4H-pyrimido[2,1-b]benzothiazol-4-one. The structure of the produced chemical is characterised using ¹H NMR, IR, and mass spectrometry and The synthesized compound successfully showed Biochemical activity against E.Coli, as well as antifungal efficacy against Bacillus subtilis species.

Keywords: 2-amino-6-cyanobenzothiazole, 8-cyano-2-methyl-4H-pyrimido[2,1-b]-benzothiazol-4-one, ethylacetoacetate¹⁻⁴.

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