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A Convenient Synthesis of A Series Of Pyrazolo[3,4-D]Pyrimidines As Potential Antimicrobial And Antioxidant Agents

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ABSTRACT

A variety of new pyrazolo[3,4-d] pyrimidines has been synthesized as potential antimicrobial and antioxidant agents in which the key intermediate, 5-amino-4-cyano-1-phenyl-3-(pyridin-3-yl)-1H-pyrazole, was used. The process was proven to be simple, efficient, high yielding and more greener compared to traditional method. The antimicrobial and antioxidant activities for the synthesized compounds were evaluated. Some of the tested compounds displayed promising antimicrobial and antioxidant activities and one compound showed antioxidant activity close to that obtained with ascorbic acid.

Keywords: 5-Amino pyrazole; Pyrazolopyrimidine; Microwave technique; Antioxidant activity; Antimicrobial activity.