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Green And Catalyst Free Synthesis of Some New Benzo[4,5]Imidazo[1,2-A]Pyrimidine Derivatives as Antimicrobial And Antitubercular Agents"

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ABSTRACT:

There are several methods for the synthesis of benzo[4,5]imidazo[1,2-a]pyrimidine derivatives has been reported. However, many of these methods suffered from harsh reaction condition, toxic reagents, strong acidic or basic conditions, prolonged reaction-times, poor yields and low selectivity. Several modifications have been made to counter these problems. Herein we have synthesized new series of 4-(1H-Imidazol-4-yl)-2-(substituted phenyl)-1,4-dihydrobenzo[4,5]imidazo[1,2-a]pyrimidines under the frame of 'green chemistry'. In the present study PEG 400 used as an alternative and green reaction solvent at first step and n-butanol at second step. The structures of synthesized compounds have been confirmed by spectral analysis, such as Mass, IR, ^{1}HNMR and ^{13}CNMR. All the synthesized compounds were screened for in vitro antimicrobial and antitubercular activity. The benzo[4,5]imidazo[1,2-a]pyrimidine derivatives with a pharmacologically potent group discussed in this poster may provide valued therapeutic important in the treatment of microbial and tubercular diseases.