

TOWARDS SEVERAL BIOLOGICAL ACTIVITIES COMPOUNDS

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Fused heterocyclic containing pyrazolopyridine systems have been described associated with several biological and medicinal activities. So, in this study, we described firstly an expedient method for the synthesis of substituted pyrazolo [3,4-b]pyridines derivatives in a single-step according to our recent study with synthesis strategy amelioration. Then, we screened for antibacterial effects against respectively Bacteria (*Escherichia coli* CIP 53126 and *Bacillus subtilis* CIP 5262) and Fungi (*Candida albicans* ATCC 10231 and *Aspergillus Niger* ATCC 16404). Hence, according to the antimicrobial activity results, some of these compounds have similar or higher activity compared with commercial antibiotic drugs (Spiramycin, Streptomycin and Fluconazol), which make them suitable for diverse applications like the manufacturing of drugs, pesticides. In the other hand, their total inhibition against *Aspergillus Niger* provides evidence that these pyrazole formulations could be an alternative source for the treatment of fungal infections caused by *Aspergillus Niger* ATCC 16404.

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