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Communication

Synthesis and Anti-Bacterial Activities of Some Novel Schiff Bases Derived from Aminophenazone

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Abstract: A series of 1,5-dimethyl-2-phenyl-1,2-dihydro-3*H*-pyrazol-3-one-containing Schiff bases were synthesized, characterized and screened for their antibacterial activities. The structures of the synthesized compounds were established by spectroscopic (FT-IR, ^{1}H-NMR, ^{13}C-NMR, MS) and elemental analyses. The anti-bacterial activities (with MIC values) of compounds were evaluated. The anti-bacterial screening results reveal that among the six compounds screened, four compounds showed moderate to good anti-bacterial activity. Among the tested compounds, the most effective compounds against four bacterial strains, viz. *Escherichia coli, Staphylococcus aureus, Salmonella typhimurium* and *Streptococcus pyogenes*, *are [(2-Chlorobenzylidene)amino]-1,5-dimethyl-2-phenyl-1,2-dihydropyrazol-3-one (4)* and *[(1,5-Dimethyl-3-oxo-2-phenyl-2,3-dihydro-1H-pyrazol-4-ylimino)methyl]benzonitrile (5)* with MIC values of 6.25 μg/mL.

Keywords: Schiff bases; aminophenazone; antibacterial activity; ciprofloxacin