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Green approach for the synthesis of thiophenyl pyrazoles and isoxazoles by adopting 1,3-dipolar cycloaddition methodology and their antimicrobial activity

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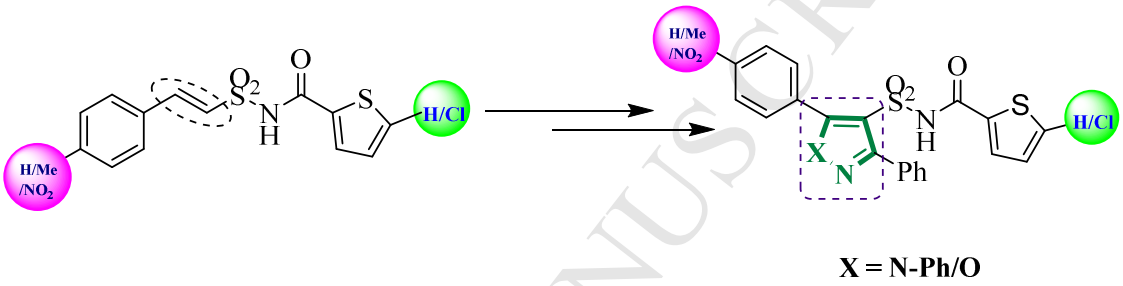
# GRAPHICAL ABSTRACT

## Green Approach for the Synthesis of Thiophenyl Pyrazoles And Isoxazoles By Adopting 1,3-Dipolar Cycloaddition Methodology And Their Antimicrobial Activity




- Thiophenyl pyrazoles and isoxazoles were synthesized by 1,3-dipolar cycloaddition of nitrile imines and nitrile oxides to *N*-(arylethenesulfonyl)thiophene-2-carboxamides under green conditions followed by aromatization.
- The presence of electronwithdrawing substituents on the aromatic ring increased the activity.
- **4f**, **7e**, **7f**, **8e**, **8f**; MIC = 6.25 µg/well against *B.subtilis*.
- **8e**, **8f**; MIC = 6.25 µg/well against *A.niger*.