Indian Journal of Heterocyclic Chemistry
Vol. 36 - Number 01 (Jan-Mar 2026) 155-159
https://connectjournals.com/01951.2026.36.155
https://doi.org/10.59467/IJHC.2026.36.155

ISSN (Print) : 0971-1627
ISSN (Online) : 2456-4311

Synthesis and antimicrobial evaluation of new phthalimide derivatives of some pyrazole thiosemicarbazones

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ABSTRACT 2-((3-(Substituted phenyl)-1-phenyl-1*H*-pyrazol-4-yl)methylene)hydrazine-1-carbothioamides (**2A–J**) were reacted with phthalic anhydride in the presence of toluene to give corresponding phthalimide derivatives (**P2A–J**). The antimicrobial activity of the synthesized compounds was evaluated against a well-defined panel of microorganisms, including Gram-positive bacteria (*Staphylococcus aureus, Streptococcus pyogenes*), Gram-negative bacteria (*Escherichia coli, Pseudomonas aeruginosa*), and fungal strains (*Candida albicans, Aspergillus niger*) to provide a comprehensive assessment of their antibacterial and antifungal potential.

KEY WORDS Antimicrobial activity, Phthalic anhydride, Phthalimide, Pyrazoles, Thiosemicarbazone.

How to cite this article: Tailor, K.K., Patel, B.D. and Prajapati, K.D. Synthesis and antimicrobial evaluation of new phthalimide derivatives of some pyrazole thiosemicarbazones, *Indian J. Heterocycl. Chem.*, **2026**, *36*, 155–159. *https://doi.org/10.59467/IJHC.2026.36.155*