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Microwave Assisted Synthesis of Substituted 2-aminothiophenes through the Gewald Reaction and Study of its Antibacterial, Antifungal Activities

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## **ABSTRACT**

A Series of 5 novel substituted 2-aminothiophenes (3C, NR2, NR3, NR4, NR6) were synthesized under microwave accelerated synthetic method by a 3-component one pot Gewald reaction. This provided the products in good yields after short reaction times under mild conditions. All the synthesized compounds were characterized by spectral data and evaluated for in-vitro antibacterial and antifungal activities. Antibacterial and antifungal activities were tested using the agar diffusion method.

**Keywords:** Gewald reaction, Substituted 2-aminothiophenes, Microwave assisted organic synthesis.