

## SYNTHESIS, SPECTRAL STUDIES AND POTENT ANTIMICROBIAL

### ACTIVITY OF A SERIES OF SUBSTITUTED CHALCONES

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#### ABSTRACT

A series of several new chalcone analogues were synthesized and also evaluated for their *in vitro* antimicrobial activity against variety of bacterial and fungal strains. Among the synthesized chalcone derivatives **3a**, **3b**, **3c**, **4a**, **4b**, **4c** showed excellent antibacterial and antifungal activities while substituted quinolinyl chalcones showed significant antifungal activities. The newly synthesized compounds were characterized by IR, <sup>1</sup>H-NMR, <sup>13</sup>C-NMR, Mass spectroscopy and elemental analysis.

**KEYWORDS:** Chalcones, Quinoline, Synthesis, Antibacterial Activity, Antifungal Activity