

## ABSTRACT

Sulfonamides are under research of many organic synthetic chemists due to their potential activity against the different enzymes and bacterial strains. The presented work is based on the synthesis of various sulfonamides derived from substituted aniline in a basic aqueous media. These synthesized compounds were screened against *Salmonella typhi* (-), *E.coli* (-) *Klebsiella pneumoniae* (-), *Bacillus subtilis* (+), *Staphylococcus aerus*(+) and *Pseudomonas aeruginosa* (-) to evaluate their biological activity. Compound 7 was highly active against *Staphylococcus aerus*(+) and also showed good activity towards *Pseudomonas aeruginosa* (-). Compound 10 was most active against *Pseudomonas aeruginosa* (-) and Compound 11 against *Pseudomonas aeruginosa* (-). Compound 8, 9 and 12 showed low and medium level activity towards selected microorganism. All the synthesized compounds were characterized by the <sup>1</sup>H-NMR, IR and EIMS spectral data