

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 was 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. Compounds 9, 11 and 12 were inactive against all tested microorganisms. Compound 7 was highly active against *E.coli* (-) and also showed good activity towards *Pseudomonas aeruginosa* (-). Compound 10 was most active against *Salmonella typhi* (-) and *Staphylococcus aerus* (+). All the synthesized compounds were characterized by the ¹H-NMR, IR and EIMS spectral data.