ABSTRACT

Due to the broad spectrum biological activities of the sulfonamides, we were focused to synthesized new molecules having antibacterial activity. Sulfonamides have $-SO_2NH_2$ moiety in their structure. In this study the sulfonamide *N*-(Morpholin-4-ylethyl) benzenesulfonamide **(3)**, was prepared by reacting amine 4-(2-aminoethyl)morpholine with Benzene sulfonyl chloride in the presence of aqueous solution of Na_2CO_3.

Then four derivatives, **5a**, **5b**, **5c** and **5d** are prepared by reacting parent compound **3** with four different electrophiles. Further, all the synthesized compounds were screened against different bacterial strains. The compounds **3**, **5b** and **5c** remained active against all the bacterial strains taken into account. The compounds **5a** and **5d** showed no activity against *Bacillis subtilis*. The most active compound was **3** among all the compounds with MIC values of 13.67±4.11, 13.81±3.20, 11.99±5.00, 11.73±3.51 and 10.97±1.11 μM. All the synthesized compounds were characterized by the ^{1}H-NMR, IR and EIMS spectral data.