GENERAL REMARKS

1) The $^1$H or $^{13}$C NMR spectra were recorded on a Varian XL-300 (300 or 75 MHz), Brucker Avance DPX 300 (300 or 75 MHz) or a Brucker Avance DRX 500 (500 or 125 MHz) instruments using DMSO-$d_6$ solvent. Chemical shifts are expressed in $\delta$ (ppm) units downfield to internal standard TMS. The $^1$H or $^{13}$C NMR data is expressed using standard notations such as chemical shift, splitting pattern ($J =$ coupling constant in Hz units) for assignment.

2) IR spectra were recorded on Shimadzu IR-408, a Shimadzu FTIR instrument. The spectra were recorded either a thin film in or KBr pellets and expressed in wave number (cm$^{-1}$).

3) Elemental Analysis was performed on a Hosli CH-Analyzer and are within $\pm$ 0.3 of the theoretical percentage.

4) Mass Spectra were recorded on a Shimadzu GC-MS QP 2010A mass spectrometer with an ionization potential of 70 eV.

5) Melting Points were determined using a Gallenkamp Melting Point Apparatus, Mod. MFB-595 in open capillary tubes and measured in °C.

6) All reactions were monitored by Thin Layer Chromatography on 0.2 mm silica gel F-254 (Merck) plates using UV light (254 and 366 nm) for detection.

7) After work up, solvents were removed under reduced pressure with Heidolph or Büchi Rotary Evaporator and re-used by standard purification methods. Compounds were purified on Biotages flash master personal plus flash chromatography system using biotage silica gel cartridges (25 g).
8) The Antimicrobial activities were carried out by broth microdilution method using
DMSO as a diluent to get desired concentration.

9) The Antitubercular activities were carried out using the Lowenstein-Jensen medium
(conventional method) as described by Rattan

10) The Insecticidal activity were carried out using Finney’s method

11) All reagents were purchased from S. D. Fine, Merck, Acros, Aldrich, Fluka, Loba
and Thomas & Becker, and were purified and dried according to the procedures given in
literature.