GENERAL REMARKS

- Melting points were recorded on either Buchi R-535 apparatus or a Kofler hot plate and are uncorrected.
- Infrared spectra were recorded on Perkin-Elmer Infrared–683 spectrophotometer with NaCl optics. Spectra were calibrated against the polystyrene absorption at 1610 cm\(^{-1}\). Samples were scanned neat, KBr wafers or in chloroform as a thin film.
- \(^1\)H NMR and \(^{13}\)C NMR spectra were recorded on Varian Gemini 200 or Varian Unity 400 making a solution of samples in CCl\(_4\)/CDCl\(_3\) (1:1) solvent using tetramethyilsilane (TMS) as the internal standard unless otherwise mentioned, and are given in the \(\delta\) scale. The standard abbreviations s, d, t, q, m, dd, dt, ABq, br s refer to singlet, doublet, triplet, quartet, multiplet, doublet of a doublet, doublet of a triplet, AB quartet and broad singlet respectively.
- Mass spectra were recorded on either Finnigan MAT 1020B or Micro Mass VG 70-70H spectrometer operating at 70eV using direct inlet system.
- The optical rotations were measured on JASCO DIP-360 digital polarimeter.
- Analytical thin layer chromatography (TLC) was performed on precoated silica gel-60 F\(_{254}\) (0.5 mm) glass plates. Visualization of the spots on TLC plates was achieved either by exposure to iodine vapor or UV light or by dipping the plates to sulphuric acid-\(\alpha\)-napthol or to ethanolic anisaldehyde-sulphuric acid-acetic acid or to phosphomolybdic acid-sulphuric acid solution and heating the plates at 120\(^{\circ}\)C. Column chromatography was performed using silica gel (60-120 mesh) and the column was usually eluted with ethyl acetate-hexane.
- Moisture sensitive reactions were carried out by using standard syringe-septum techniques.
- All solvents and reagents were purified by standard techniques. All evaporation of solvents was carried out under reduced pressure on Buchi-RE-121 rotary evaporator below 45 \(^{\circ}\)C.
- Yield reported are isolated yields of material judged homogeneous by TLC and NMR spectroscopy.
- The names of all compounds given in the experimental section were taken from ACD/Name, Version 1.0.