GENERAL REMARKS

The present investigations were carried out in the Organic Chemistry Laboratory of the University of Kalyani, Kalyani-741235, West Bengal during the period January, 2004 to December, 2008.

The following data apply to all the experimental sections unless otherwise stated.

Melting points were determined in an open capillary and are uncorrected. UV spectra were recorded in different solvents on a Perkin-Elmer Lambda-25 spectrophotometer ($\lambda_{\text{max}}$ in nm) and FT-IR spectra were recorded on a Perkin-Elmer L120-00A spectrometer ($\nu_{\text{max}}$ in cm$^{-1}$) using samples as neat liquids and solid samples were recorded in KBr plates. For $^1$H and $^{13}$C NMR spectra Bruker 200, 300, 400 and 500 MHzs instruments were used with TMS as internal standard. Elemental analyses were performed on Perkin-Elmer 2400CHN Elemental analyzer. $^1$H-NMR and $^{13}$C-NMR spectra were recorded at Chembiotek Research International, Kolkata; Indian Institute of Chemical Biology, Kolkata and Bose Institute, Kolkata, University of Kalyani, Kalyani. Perkin-Elmer LS-50B and Perkin-Elmer LS-55 instrument. Mass spectra were recorded on Applied Biosystems (MDS SCIEX) API 2000 LC/MS/MS.

TLC experiments were monitored using silica gel as absorbent and chromatograms. Visualization was accomplished with UV light (256 nm) and by exposing in iodine chamber. Column chromatography was carried out with silica gel of 60-120 mesh. The analytical samples were routinely dried in vacuo at 60°C for eight hours.

All the solvents and reagents employed were purified using recommended procedures in literature. Petroleum ether refers to the fraction boiling between 60°C and 80°C.

The moisture sensitive reactions were performed in oven-dried glasswares under nitrogen atmosphere.

Nomenclature mentioned in the experimental section was adopted from ChemDraw software.