General Remarks

- All the solvents were purified according to literature procedure.¹
- Petroleum ether used in the experiments was of 60−80 °C boiling range.
- Column chromatographic separations were carried out by gradient elution with suitable combination of two solvents and silica gel (60–120 mesh/100–200 mesh/230–400 mesh).
- The irradiation was performed by using 450-W Havonia medium pressure lamp and pyrax filter (>300 nm).
- Reaction progress was monitored by TLC or GC. TLC was performed E-Merck pre-coated 60 F254 plates and the spots were rendered visible by exposing to UV light, Iodine, phosphomolibdic acid, o-Anisol, KMnO4. GC analysis was performed on Perkin Elmer 8700 and Varian CP 3800 GCs using SGE BP1, BP20 and Varian Chrompack CP-Sil-5CB columns.
- IR spectra were recorded on FTIR instrument, for solid either as nujol mull, neat in case of liquid compounds or their solution in chloroform.
- NMR spectra were recorded on Bruker AV 200 (200 MHz ¹H NMR and 50 MHz ¹³C NMR), Bruker AV 400 (400 MHz ¹H NMR and 100 MHz ¹³C NMR) and Bruker DRX 500 (500 MHz ¹H NMR and 126 MHz ¹³C NMR).
- ¹³C peak multiplicity assignments were made based on DEPT data.
- Mass spectra were recorded on PE SCIEX API QSTAR pulser (LC-MS) and Shimadzu QP 5000 GC/MS coupled to Shimadzu 17A GC using a DBI column.
- High resolution mass (HR-ESI-MS) spectra was recorded on a Thermo scientific make Q-exactive model spectrometer using electrospray ionization
- Optical rotations were measured on a JASCO P-1020 polarimeter.
- HPLC were performed on Shimadzu Class-VP V6.12 SP5 with UV detector.
- All the melting points recorded are uncorrected and were recorded using electrothermal melting point apparatus.
- Numbering of compounds, schemes, tables, referencing and figures for each chapter as well as abstract are independent.