GENERAL REMARKS

The numbers given to the literature references, structures, tables, figures and schemes have been made continuous separately in each part of the dissertation. The references have been cited at the end of the respective part of the thesis.

Petroleum ether used had boiling point range 60-80°C. Extracts of products in organic solvents were generally washed with saturated aqueous sodium chloride solution and dried over anhydrous sodium sulphate in each case. The melting points (°C) were uncorrected and analytical samples were routinely dried in vacuo over P₂O₅.

All thin layer chromatography (TLC) experiments were performed using silica gel (E. Merck) as adsorbent; spots were detected by staining with iodine vapour. Silica gel (60-120 mesh, Tara Chemicals, Calcutta) were employed for column chromatography. All chromatography experiments were monitored by micro TLC. Gas chromatography experiments described in Part-II were carried out on a Hewlett Packard M5890, Series II gas chromatograph fitted with a Hewlett Packard integrator M3394A. High performance liquid chromatography (HPLC) experiments described in Part-I of the dissertation were carried out on a Waters LC system fitted with M510 pumps, M410 differential refractometer, M486 tunable absorbance detector and a data station.

The UV spectra were recorded in spectral alcohol (methanol or ethanol) on a Hitachi U2000 spectrophotometer and IR spectra were examined in KBr, unless otherwise stated, on a Perkin Elmer-782 spectrophotometer. The ¹H (300.13 MHz) and ¹³C (75.47 MHz) NMR spectra were recorded on a Bruker AM 300L spectrometer equipped with an Aspect 3000 computer and an array processor using the DISNMR program version 870101 or 940101.1 using CDCl₃ as the solvent unless otherwise stated. The chemical shifts reported are in δ (ppm) downfield from TMS. Deutero-solvent signal served as an internal standard in carbon spectral measurements; δₜₐₕₑₛₚ = δ_CD₃OD + 77.0 ppm = δ_CD₃OD + 49.0 ppm. Mass spectra were taken in a 70 eV Hitachi RMU 6L
mass spectrometer. Optical rotations were measured with a Perkin Elmer M241 micro-optic electronic polarimeter.

In Sections A and B of Part-I of the thesis the β-D-glucopyranosyl moiety has been represented in abbreviated form as Glu. Numbering of the monoterpenoid iridoid skeleton and structural representations of the most common functionalities are shown below.