

GENERAL REMARKS

1. The structures are indicated by a double number, the first part of which indicates the chart number in which it occurs and the second part indicates the serial number of the structure, e. g., (1.3) means, structure 3 in Scheme 1.
2. The spectra concerning each chapter (2 to 6) are given just before the reference part.
3. The ^1H NMR and ^{13}C NMR spectra were recorded in CDCl_3 / DMSO-d_6 with TMS as an internal reference; on Bruker AC-200 or MSL-300 (200 MHz or 300 MHz for ^1H NMR and 50 MHz or 75 MHz for ^{13}C NMR) spectrometer. The chemical shifts are expressed in δ units.
4. The IR spectra were recorded in CHCl_3 , nujol or as a KBr pellet on Perkin- Elmer- 783 spectrophotometer and the values are expressed in cm^{-1} .
5. The mass spectra were recorded on Phenegan Matt SSQ 7000 Spectrometer.
6. The melting points (m. p.) are uncorrected.
7. The ether extracts were dried with anhydrous sodium sulphate, unless otherwise mentioned.
8. The abbreviations used in the literature and charts are as given below:

ABBREVIATIONS:

| | |
|------|------------------------|
| Ac | Acetyl |
| AcCN | Acetonitrile |
| CAN | Ceric Ammonium Nitrate |
| Cat. | Catalyst |

| | |
|-------------------|---------------------------------|
| DCM | Methylene chloride |
| DDQ | Dichloro dicyano-p-Benzoquinone |
| DMF | Dimethyl Formamide |
| DMSO | Dimethyl Sulfoxide |
| g | Grams |
| h. | Hour |
| HMDS | Hexamethylenedisilazane |
| min. | Minutes |
| mol | Mole |
| mmol | Milli mole |
| SA | Sulfamic acid |
| MW | Microwave |
| NBS | N-Bromosuccinimide |
| LiBF ₄ | Lithium tetrafluoroborate |
| PEG | Polyethylene glycol |
| PTC | Phase transfer catalyst |
| Py | Pyridine |
| rt | Room temperature |
| SSA | Silica sulfuric acid |
| TBDMS | tert-butyl dimethyl silyl |
| TCICA | Trichloroisocyanuric acid |
| TEA | Triethylamine |
| TLC | Thin layer chromatography |
| THF | Tetrahydrofuran |
| THP | Tetrahydropyran |

| | |
|---------|----------------------------------|
| TMSCN | Trimethyl silyl cyanide |
| MCRs | Multicomponent reactions |
| PVP-HCl | Polyvinyl pyridine hydrochloride |