ABBREVIATIONS

Ac  Acetyl
Ac2O  Acetic anhydride
AcOH  Acetic acid
Aq  Aqueous
Ar  Aryl
Bn  Benzyl
br  Broad
Br  Bromine
BOC  Butyloxy carbonyl
$t$-Bu  tert-Butyl
$t$-BuOH  tert-Butyl alcohol
$t$-BuOK  Potassium tert-butoxide
Bz  Benzoyl
Cat  Catalytic
Cbz  Benzyloxy carbonyl
Conc  Concentrated
d  doublet
DCC  N,N-Dicyclohexylcarbodiimide
dd  doubledoublet
DCM  Dichloromethane
DIC  Diisopropylcarbodiimide
DIEA  Diisopropylethylamine
DMAP  4-(Dimethylamino)pyridine
DMF  Dimethylformamide
DMSO  Dimethyl sulphoxide
DPPH  2,2-Diphenyl-1-picrylhydrazyl
Et  Ethyl
EtOAc  Ethyl acetate
Fmoc  9-Fluorenylemethoxycarbonyl
EtOH  Ethanol
H2O2  Hydrogen peroxide
HOBT  4-Hydroxybenzotriazole
HBTU  2-(1H-9-Benzotriazol-1-yl)-1,1,3,3-tetramethyluronium hexafluorophosphate
HPLC  High performance liquid chromatography
Hz  Hertz
IR  Infrared
$i$-PrNEt  Di-isopropylethylamine
$m$  meta
Me  ...... Methyl
MeOH ...... Methanol
MeCN ...... Acetonitrile
MOM ...... Methoxymethyl
MsCl ...... Methane sulphonyl chloride
MS ...... Mass
Mp ...... Melting point
Myr ...... Myristic acid
NaH ...... Sodium hydride
NaOCH3 ...... Sodium methoxide
NMR ...... Nuclear magnetic resonance
o ...... ortho
p ...... para
Pd/C ...... Palladium on carbon
PPTS ...... Pyridinium p-toluenesulphonate
p-TSA ...... p-Toluene sulphonic acid
Ph ...... Phenyl
Pme ...... 2,2,5,7,8-Pentamethylchroman-6-sulfonyl
q ...... quartet
rt ...... Room temperature
s ...... singlet
t ...... triplet
TBDMS ...... Tertiary butyl dimethyl silyl
tBDPS ...... Tertiary butyl diphenyl silyl
TBAF ...... Tetra butyl ammonium fluoride
TCA ...... Trichloroacetic acid
TEA ...... Triethyl amine
TFA ...... Trifluoroacetic acid
TFE ...... Trifluoroethanol
THF ...... Tetrahydrofuran
TLC ...... Thin layer chromatography
TMS ...... Tetramethylsilane
TPP ...... Triphenylphosphine
Tr ...... Trityl
UV ...... Ultraviolet
GENERAL REMARKS

- Most of the reactions were carried out in oven- or flame-dried glassware with magnetic stirring under nitrogen atmosphere using dry, freshly distilled solvents.

- All the evaporations were carried out under reduced pressure on Buchi-rotary evaporator or Heidolph rotary evaporator below 45°C.

- Reactions were monitored by thin-layer chromatography (TLC) carried out on Merck TLC plates with UV light (256 nm), iodine, 7% ethanolic phosphomolybdenic acid-heat, anisaldehyde-H₂SO₄ in acetic acid-heat and 20% H₂SO₄ in methanol-heat, as developing agents.

- Silica gel 60-120 mesh, 100-200 mesh were used for column chromatography. Yields refer to chromatographically and spectroscopically homogeneous materials isolated unless otherwise noted.

- Proton magnetic resonances were recorded on Brukers 200 MHz and 500 MHz spectrophotometers using tetramethylsilane (TMS) as the internal standard. Chemical shifts have been expressed in δ values downfield from TMS. Multiplicity of NMR signals is designated as s (singlet), d (doublet), t (triplet), q (quartet), m (multiplet), br (broad). ¹³C NMR spectra were recorded with complete proton decoupling.

- Mass spectra were recorded on EIMS (Shimadzu) and ESI-esquire 3000 Bruker Daltonics instrument. In the ESI-MS spectra, the M⁺ + 1 peak corresponds to the proton (H) adduct, the M⁺ + 23 peak corresponds to the sodium (Na) adduct and the M⁺ + 39 corresponds to the potassium (K) adduct.

- Infrared spectra (KBr discs) were recorded on a Bruker Vector 22 spectrophotometer with sodium chloride optics.
- Melting point was recorded on Buchi 535 melting point apparatus and are uncorrected.

- Optical rotations were measured with Perkin digital polarimeter.

- All solvents and reagents were purified and dried according to procedures given in Vogel’s Text book of practical organic chemistry.

- Moisture sensitive reactions were carried out using standard syringe septum techniques.

- All the nomenclature were given according to Chemical Abstract index. For the unpublished compounds the nomenclature was given following ACD/ChemSketch version.
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