559 Toward a stereoselective synthesis of tetrahydroxy long chain base (LCB) and the synthesis of analogs of mannostatin A

Efforts toward the synthesis of tetrahydroxy long chain base and analogs of mannostatin A utilizing the nucleophilic potential of a sulfanyl group for the oxidative functionalization of an olefin is described.

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580 Microwave assisted synthesis, chemiluminescent and theoretical studies of bromoalkyl esters of acridine-9-carboxylic acid

Previously unknown esters of acridine-9-carboxylic acid have been synthesized in moderate to good yields under microwave irradiation using phase transfer catalyst aliquat.

Subhasis Samai, Ganesh C Nandi, Pallavi Singh, A Gupta & M S Singh*
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A fast, highly efficient and green protocol for Michael addition of active methylene compounds to styrylisoxazoles using task-specific basic ionic liquid [bmIm]OH as catalyst and green solvent

![Chemical structures 3, 4, and 5]

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Solvent free synthesis, spectral studies and antioxidant activities of some 6-substituted α-bromo-2-naphthyl ketones and their esters

A series of 6-substituted α-bromo-2-naphthyl ketone 1a-i and 6-substituted 2-naphthacetyl esters 2a-i have been synthesized by greener synthetic methods using fly-ash:water catalysed aqueous phase reaction. They exist as two rotomers and the carbonyl frequencies of these rotomers have been assigned and correlated with Hammett substituent constants, F, R and Swain-Lupton’s parameters. The antioxidant activities of the synthesized esters have been evaluated.

![Chemical structures 6, 7, and 8]

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Facile one-pot synthesis of novel 3-substituted-1, 6-dihydro-1,2,4-triazin-5-(2H)-ones from fatty acid hydrazides and their in-vitro antimicrobial activity

A series of 3-substituted-1,6-dihydro-1,2,4-triazin-5(2H)-ones, have been synthesized using the cyclocondensation reaction of fatty acid hydrazides with 2-chloroacetamide in N,N-dimethylformamide medium. The compounds have also been evaluated for their in-vitro antimicrobial activity.

![Chemical structure]

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Notes

An efficient microwave technique for exo- to endo-double bond migration in natural products

Mono- and sesquiterpenes having exomethylene double bond upon microwave irradiation on solid surface undergo facile double bond migration to endo-position. The yield of isomerized product depends on the time of exposure.

![Chemical structure]

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Synthesis and evaluation of some novel 1,3,4-thiadiazoles for antidiabetic activity

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Iodine-catalysed conjugate addition of indole with α-cinnamyldieneketones: Formation of β-(3-indolyl)-α,β-dihydro-α-cinnamyldieneketones and bis-(3-indolyl)methylbenzene

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Saussurea heteromalla (D. Don) Hand.-Mazz.: A new source of arctiin, arctigenin and chlorojanerin

Saussurea heteromalla (D. Don) Hand.-Mazz. (Asteraceae), a Himalayan herb, has been investigated phytochemically and the plant is being reported here as a new source of two lignans, i.e. arctigenin and its glycoside arctiin, and one sequiterpene lactone, the chlorojanerin. The structures of these compounds, determined by UV spectra, LC-MS, 1H NMR, 13C NMR spectroscopy, are discussed. These compounds have been found pharmacologically important; the arctigenin and arctiin are known to have anti-inflammatory activity and the chlorojanerin has been investigated for the anti-ulcer and antiviral properties.

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Conventional and microwave induced synthesis of various pyrimidine and isoxazole derivatives from 1-[4'-[(4''-methylpiperazinyl)diazenyl]phenyl]-3-(substitutedphenyl)prop-2-en-1-one and studies of their antimicrobial activity

6-[4'-[(4''-Methylpiperazinyl)diazenyl]phenyl]-3,4,5-trihydro pyrimidin-2-one 3a-j, 6-[4'-[(4''-methylpiperazinyl)diazenyl]phenyl]-4-(substitutedphenyl)-3,4,5-trihydroprymidin-2-thione 4a-j and 3-[4'-[(4''-methylpiperazinyl)diazenyl]phenyl]-5-(substitutedphenyl)isoxazole 5a-j have been synthesized from 1-[4'-[(4''-methylpiperazinyl)diazenyl]phenyl]-3-(substitutedphenyl)prop-2-en-1-one 2a-j with urea, thiourea and hydroxylamine hydrochloride respectively. The reactions have been carried out by microwave and conventional methods. All the synthesized compounds 3a-j, 4a-j and 5a-j have been tested for their antimicrobial activity.

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