Rapid Communications

635 Glucopyranosyl derivatives of 4-aminoquinoline and 2-methylimidazo[1, 2-a]pyridine as potent reversible proton pump inhibitors

2-[3-Butyryl-4-(2-methylphenylamino)quinoline-8-yloxy]ethyl 2, 3, 4, 6-tetra-O-acetyl-13-D-glucopyranoside and 3-ethoxycarbonyl-2-methylimidazo[1, 2-a]pyridine-8-yl 2, 3, 4, 6-tetra-O-acetyl-β-D-glucopyranoside are found to be good reversible proton pump inhibitors.


639 An unusual action of hydrazine hydrate on arylthiols: A new facile method for synthesis of disulfides

An efficient and convenient conversion of thiols to disulphides using hydrazine hydrate is described.

\[ R-SH \xrightarrow{N_2H_4 \cdot H_2O} R-S-S-R \]

Room Temperature

R = aryl, substituted aryl

S Rajaram, G Sudhakar Reddy & D S Iyengar*

Papers

641 1,3-Dipolar cycloadditions: Part IV—Cycloaddition of 1-phenyl-3-oxidopyridinium betaines to electron-deficient alkenes

Cycloaddition of 1-phenyl-3-oxidopyridinium betaine with a number of 1, 2-disubstituted olefins bearing electron withdrawing groups gives diastereoisomeric regioselective cycloadducts in each case. A Michael addition product derived from a cycloadduct is also obtained in one case. The structure and stereochemistry of the cycloadducts have been confirmed by spectroscopic analyses.

Avijit Banerji*, Sunanda Haldar (née Datta) & Julie Banerji
648 Synthesis of thienospiran derivatives and studies of regioselectivity in Friedel-Crafts acylation reaction

Cyclic ketones of the types A and B have been synthesised.

The regioselectivity in the Friedel-Crafts acylation of thiophenes with anhydrides of various unsymmetrically substituted succinic acid having substituent(s) at the same carbon atom in two different solvents viz. dichloromethane and nitrobenzene has been studied.

P K Sen*, Uttam Kumar Saha & Tulika Das (née Deb)

657 The ground state basicities of a series of substituted acetophenones: A theoretical study

MNDO calculations with complete geometry optimization on a series of para-substituted acetophenones show that the gas phase o-protonation is spontaneous irrespective of their electron releasing and withdrawing nature. The overall basicity is explained by distant atom contribution in addition to the contribution from the carbonyl group.

D K Dinda & B R De*

660 Ab initio and MNDO study of structural parameters and pyramidal phosphorus atom inversion in 1-substituted phosphorinanes

A detailed ab initio and MNDO study of structural parameters and pyramidal phosphorus atom inversion and also enthalpy differences (ΔH°) between the participants in the conformational equilibrium (axial equatorial) of 1-R-phosphorinanes (R=H, CH₃, C₂H₅) have been investigated which are in good agreement with the observed NMR and X-ray values.

Javad Azizian*, Khosrow Jadidi, Morteza Mehrdad & Yaghob Sarrafi

(ii) INDIAN J CHEM, 38B(6) 1999
Comparative QSAR studies with molecular negentropy, molecular connectivity, STIMS and TAU indices. Part I: Tadpole narcosis of diverse functional acyclic compounds

Kunal Roy*, Dipak Kumar Pal, A U De & C Sengupta

Stereoelectronic control on the energy barrier to rotation about N-C (phenyl) bond

Kamal K Srivastav, Vandana Srivastava, Shiva M Verma* & P K Bharadwaja

Synthesis and antibacterial activity of 4-aryl-1-(1-p-chlorophenyl-5-methyl-1, 2, 3-triazol-4-carbonyl)thiosemicarbazides and their related heterocyclic derivatives

Xiao-Wen Sun, Hong-Tao Liang, Zi-Yi Zhang*, Qin Wang & Fang Wang
A series of novel title compounds 4a-o has been synthesized through two different synthetic routes, first, by condensation of pyrazole o-aminoester 1 with aryl isothiocyanates 2, and second by cyclocondensation of alkyl isothiourea ethers of symmetrical thioureas 5 with 1. The lead compound, 4c (LM-22385), exhibited analgesic activity comparable to morphine and aspirin at the dose levels of 10 mg/kg p.o. and 100 mg/kg p.o. In the acetic acid induced writhing test in mice it is found to be superior to that of aspirin in the rat caudal immersion test.

Synthesis and biological activity of 2-azetidinones 3, sulphonamides 4, arylamides 5, and thiourea derivatives bearing 2-aminothiazole has been described.

Nine taxoids including taxol 1 baccatin III 2 and 7-xylosyl-10-deacetyltaxol C 9 and three phenolic compounds have been isolated from the roots of Taxus wallchiana. The occurrence of 7-xylosyl-10-deacetyltaxol C in the roots of the plant is quite significant.

(iv)
Aryl, lipid and triterpenoid constituents from *Oenothera biennis*

Besides sitosterol, oleanolic acid, maslinic acid, tetramethylellagic acid, 2, 7, 8-trimethylellagic acid and gallic acid, four new compounds 3, 4, 6 and 10 have been isolated from *Oenothera biennis* and characterized by spectral studies. Gallic acid exhibits antifungal properties.

Y N Shukla*, A Srivastava & S Kumar

Structural studies on a polysaccharide from an edible mushroom, *Termitomyces eurhizus*

The repeating unit of the polysaccharide isolated from the aqueous extract of the mushroom, is described.

Amar Pramanik & Syed S Islam*

*Justicia* lignans: Part 4—Two new arylnaphthalide lignans from *Justicia neesii* Rama-moorthy

Two new arylnaphthalide lignans, jusmicranthin 1 and justirumalin 5 from *J. neesii* are reported. Structure of 1 was deduced as its ethyl and methyl ethers. Retrohelioxanthin 9 has been isolated as natural product for the first time.

Dodda Rajasekhar, Mulabagai Vanisree & Gottumukkala V Subbaraju*

(v)  INDIAN J CHEM, 38B (6) 1999
### Notes

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<td>Synthesis of novel oxaziridines derived from trans-4-aminocyclohexanol</td>
<td>Mazaahir Kidwai*, Bhavesh Dave &amp; Seeka Kohli</td>
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<td>721</td>
<td>Rapid and clean synthesis of 5-arylhydrazones of Meldrum’s acid using polymer supported Meldrum’s acid anion</td>
<td>B P Bandgar*, A M Tavhare &amp; S S Pandit</td>
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<td>Oxidation of phenylbutazone with hydrogen peroxide catalyzed by 5, 10, 15, 20-tetraarylporphyrinatoiron(III) chlorides in dichloromethane</td>
<td>S M S Chauhan*, K A Srinivas &amp; P P Mohapatra</td>
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<td>726</td>
<td>Selective methylation of coumarins and naphthoquinones using dimethyl sulfoxide</td>
<td>Prakash Chander Thapliyal</td>
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A series of novel oxaziridines have been synthesised from trans-4-aminocyclohexanol.

Polymer supported Meldrum’s acid anion is treated with various aryl diazonium fluoroborates at 25°C in acetonitrile to give corresponding 5-phenylhydrazones of Meldrum’s acid in good yield. Isolation of pure products by simple filtration and evaporation is an important feature of this method.

The use of dimethyl sulfoxide in the presence of UV light under nitrogen atmosphere for the selective methylation of coumarins and naphthoquinones in single step is reported.

\[ \text{Meldrum's acid anion} + \text{ArN}_2\text{Cl} \rightarrow \text{ArNHNCONH}_2 + 2\text{BF}_3 \]

\[ \text{Meldrum's acid anion} + \text{ArN}_2\text{Cl} \rightarrow \text{ArNHNCONH}_2 + 2\text{BF}_3 \]
728 Studies of the reactions of some benzenealkenyl ethers with benzeneselenenyl halides

Intramolecular cyclization of some benzenealkenyl ethers with benzeneselenenyl halides (at −78°C, 0°C and room temperature) has been investigated. The yield of cyclic phenylselenoethers decreases with an increase in the reaction temperature. PhSeCl is more efficient than PhSeBr for the cyclization reaction.

Zorica Bugarčić*, Stanimir Konstantinović & Biljana Mojsilović

732 Studies on the condensation of 2, 3-pyridinediamines with 2-phenyl-3, 1-benzoxazin-4(3H)-one

Condensation of 2, 3-pyridinediamines 1 with 2-phenyl-3, 1-benzoxazin-4(3H)-one 2 gives 3. A mechanistic pathway for the formation of 3 is described.

P K Dubey* & R Vinod Kumar

735 Synthesis and antimicrobial activity of 2-aryloxy-2, 3-dihydro-5-propylthio-1H-1, 2, 3-benzodiazaphosphole 2-oxides

The synthesis and spectral studies of 2-aryloxy-2, 3-dihydro-5-propylthio-1H-1, 2, 3-benzodiazaphosphole 2-oxides have been studied. The title compounds possess moderate antimicrobial activity.

D Srinivasulu, C Nagaraju, C Devendranath Reddy* & K D Berlin

739 Synthesis and reactions of some new 5-aryl-3-oxo-7-(4'-aryl-2', 5'-dioxo-1', 2', 3', 4'-tetrahydrofluoren-3'-yl)-8H-2, 3-dihydrothiazolo[5, 4-b]pyrimidines of expected biological activity

M A Salama* & S A El-Essa

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<td>Two new clerodane diterpenes with antibacterial activity from <em>Ajuga lapulina</em></td>
<td>Hao Chen, Lin Xin Zhang, Zhong Hao Xia, Dan Qing Liu, Li Yang, Ren Xiang Tan* &amp; Zhi Li Liu</td>
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<td>746</td>
<td>A new stigmastane derivative from the roots of <em>Malva parviflora</em></td>
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<td>Two new anthraquinone derivatives from <em>Rheum emodi</em></td>
<td>Santosh K Agarwal*, Sudhir S Singh, Sushma Verma &amp; Sushil Kumar</td>
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<td>752</td>
<td>New aliphatic compounds from the seeds with pods of <em>Derris robusta</em></td>
<td>Anjali Gupta*, I R Siddiqui, J Singh &amp; J P Sharma</td>
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Two new clerodane diterpenes 1 and 2 have been isolated from *Ajuga lapulina* and their structures established on the basis of 1D and 2D NMR.

From the roots of *Malva parviflora* a new stigmastane derivative, 5α-stigmast-9(11)-en-3-one, has been isolated along with the known phytoc compounds, namely 3-methyl-triacontane and 5α-stigmast-9(11)-en-3β-ol.

Two new compounds isolated from *Rheum emodi* have been characterised as rheinal 1 and rhein-11-O-β-D-glucoside 2 by spectral data and chemical studies.

From the seeds of *Derris robusta* with pods two new aliphatic compounds have been extracted and their structures established as octa cos-3-one 1 and 23-hydroxy-octa cos-5-ene-3-one 2.
Book Review

754 Wings of Fire (A P J Abdul Kalam with Arun Tiwari)

Reviewer: R N Sharma

Authors for correspondence are indicated by (*)