A New Route To Seven- And Eight-Membered Carbocycles

Jong Sun U, Jinhwa Lee, and Jin Kun Cha* Department of Chemistry, University of Alabama, Tuscaloosa, AL 35487, U.S.A.

A new, two-step protocol for seven- and eightmembered annulation has been developed by the tandem application of the intramolecular hydroxycyclopropanation of ω-vinyl esters and subsequent oxidative cleavage of the resulting cyclopropanols.

FG
$$CO_2Me$$
 $XS \circ C_8H_9MgCl$ FG OH $n = 1 \text{ or } 2$ FG OH $NaOAc$

Tetrahedron Letters, 1997, 38, 5237

Ring Opening Cross-Metathesis on Solid Support.

Gregory D. Cuny*, Jingrong Cao and James R. Hauske
Sepracor Inc., 111 Locke Dr., Marlborough, MA 01752-7231 USA

Regioselective ring opening cross-metathesis (ROM) of resin-bound bicyclic alkenes with electron rich terminal aryl olefins.

FLUORIDE INDUCED ISOMERIZATION OF COBALT DIENE COMPLEXES Joseph M. O'Connor,* Ming-Chou Chen, and Arnold L. Rheingold* Department of Chemistry and Biochemistry, University of California at San Diego 9500 Gilman Drive, La Jolla, CA 92093-0358 and Department of Chemistry

Tetrahedron Letters, 1997, 38, 5241

University of Delaware, Newark, Delaware 19716

A fluoride mediated isomerization of cobalt diene complexes holds promise for new applications of cobalt diene complexes in synthesis

SYNTHESIS AND STRUCTURE REVISION OF THE myo-INOSITOL MONOPHOSPHATASE INHIBITOR L-671,776

Tetrahedron Letters, 1997, 38, 5245

J. R. Falck,* K. Kishta Reddy, and S.Chandrasekhar, Departments of Biochemistry and Pharmacology, University of Texas Southwestern Medical Center, Dallas, Texas 75235-9038

The structure of the L-671,776 was revised based on an asymmetric total synthesis utilizing (EtO)₃SiI for the key deprotection/spiro-heteroannulation.

Stereoselective Synthesis of the 2,6-Disubstituted
Tetrahydropyran-3-ol of the Potent Antitumor Agent Mucocin via an
Acyl Radical Cyclization

P. Andrew Evans* and Jamie D. Roseman

Brown Laboratory, Department of Chemistry and Biochemistry, University of Delaware, Newark, DE 19716.

The intramolecular acyl radical cyclization of the acyl selenide 2 using the Z-vinylogous sulfonate to control rotamer population affords the cis-2,6-disubstituted tetrahydropyran-4-one 3, applicable to the potent antitumor agent mucocin 1, in 81% yield.

Nosylaziridines: Activated Aziridine Electrophiles.

Tetrahedron Letters, 1997, 38, 5253

Peter E. Maligres*, Marjorie M. See, David Askin and Paul J. Reider,
Department of Process Research, Merck Research Laboratories, P.O. Box 2000, Rahway, NJ 07065

Nosylaziridines are highly reactive electrophiles towards a variety of nucleophiles yielding the corresponding SN2 adducts without competing attack on the nosyl functionality (SNAr). The resulting primary nosylamide adducts can be readily cleaved under mild conditions to provide the primary amines.

Tetrahedron Letters, 1997, 38, 5257

Monomethoxytrityl (MMT) as a Versatile Amino Protecting Group

for Complex Prodrugs of Anticancer Compounds Sensitive to Strong Acids, Bases and Nucleophiles. Gene M.

Dubowchik and Shilpa Radia Bristol-Myers Squibb Pharmaceutical Research Institute, P.O. Box 5100, Wallingford, CT 06492-7660

Tetrahedron Letters, 1997, 38, 5261

Efficient Mitomycin C Coupling With Stable p-Nitrophenyl-Benzyl

Carbonates Using N-Hydroxybenzotriazole as a Catalytic Additive. Gene M. Dubowchik, * Dalton King and Kahnie Kaplita Bristol-Myers Squibb Pharmaceutical Research Institute, P.O. Box 5100, Wallingford, CT 06492-7660

Mitomycin C benzyl carbamates were prepared in high yield from stable p-nitrophenyl carbonates in the presence of catalytic amounts of 1-hydroxybenzotriazole/diisopropylethylamine in DMF.

MACROCYCLIC OXONIUM YLIDE FORMATION AND INTERNAL [2,3]-SIGMATROPIC REARRANGEMENT.

CATALYST INFLUENCE ON SELECTIVITY. Michael P. Doyle* and Chad S. Peterson. Department of Chemistry, Trinity University, San Antonio. Texas. 78212 (U.S.A.)

Macrocyclic lactones are formed from 13-membered ring oxonium vlide intermediates.

LACTAM ANALOGUES OF PENTALENE. A NEW ONE-POT SYNTHESIS OF PYEROLOI3.2-bipyerole-2.5-diones deriving from pulvinic acid

Tetrahedron Letters, 1997, 38, 5269

Jörg Wuckelt^a, Manfred Döring^a, Peter Langer^b, Helmar Görls^a, Rainer Beckert^a; ^a Institut für Anorganische und Analytische Chemie, Universität Jena, A.-Bebel-Str. 2, D-07743 Jena, Germany; ^b Institut für Organische Chemie, Universität Hannover, Schneiderberg 1b, D-30167 Hannover, Germany; ^c Institut für Organische Chemie, Universität Jena, Humboldtstr. 10, D-07743 Jena, Germany.

Reactions of anions of acetic acid esters with bis(imidoyl) chlorides of oxalic acid provides a direct synthesis of pulvinic acid lactams.

Tetrahedron Letters, 1997, 38, 5273

3,3'-DINITRO-OCTAHYDROBINAPHTHOL: A NEW CHIRAL LIGAND FOR METAL-CATALYZED ENANTIOSELECTIVE REACTIONS

Manfred T. Reetz, Claudia Merk, Guido Naberfeld, Joachim Rudolph, Nils Griebenow, Richard Goddard Max-Planck-Institut für Kohlenforschung, Kaiser-Wilhelm-Platz 1, D-45470 Mülheim/Ruhr, Germany

PAUSON-KHAND REACTION WITH ALLENIC COMPOUNDS II : REACTIVITY OF FUNCTIONALIZED ALLENES.

Tetrahedron Letters, 1997, 38, 5277

Mohammed Ahmar, Olivier Chabanis, Jérôme Gauthier and Bernard Cazes*.

Laboratoire de Chimie Organique I, Université Claude Bernard, 43 Bd du 11 Novembre 1918, 69622 Villeurbanne, France.

The cobalt-mediated cycloaddition of alkynes with functionalized allenes leads to 4- and 5-alkylidenecyclopent-2-enones 4-6.

PAUSON-KHAND CYCLOADDITION OF a.w-ALLENYNES.

Mohammed Ahmar, Cédric Locatelli, David Colombier and Bernard Cazes*.

Laboratoire de Chimie Organique I, Université Claude Bernard, 43 Bd du 11 Novembre 1918, 69622 Villeurbanne, France,

The cobalt-mediated evoloaddition of α.ω-allenvnes leads to bicyclic unsaturated ketones.

$$Z = CO_2Me$$

$$CO_2(CO)_8 = CO_2(CO)_8 = CO_$$

Tetrahedron Letters, 1997, 38, 5285

A NEW ROUTE TO OLIGODEOXYNUCLEOSIDE PHOSPHORAMIDATES (P-NH₂)

Alain Laurent, Françoise Debart* and Bernard Rayner

Laboratoire de Chimie Bio-organique, UMR 5625 CNRS-UM II, Case 008, Université Montpellier II, Place Eugène Bataillon. 34095 Montpellier Cedex 5, France

A new strategy for the introduction of phosphoramidate (P-NH₂) linkages in oligonucleoside phosphodiesters is described. The P-NH₂ function is generated under photolysis of N-2-nitrobenzylphosphoramidate linkage.

PHOTOLABILE LINKER FOR THE SOLID-PHASE SYNTHESIS OF BASE-SENSITIVE OLIGONUCLEOTIDES. Christelle Dell'Aquila, Jean-Louis Imbach

and Bernard Rayner*. Laboratoire de Chimie Bio-Organique, C.N.R.S., Université de Montpellier II CC 008.Place Eugène Bataillon. 34095 Montpellier Cedex 5. France.

HETEROARYLATION OF ANTHRAQUINONE TRIFLATE VIA

Tetrahedron Letters, 1997, 38, 5293

Tetrahedron Letters, 1997, 38, 5289

SUZUKI CROSS-COUPLING. Christophe Coudret* and Valérie

Mazenc, Molecular Electronics Group, CEMES/CNRS BP4347, 31055 Toulouse Cédex, France.

New anthraquinones such as 2a were prepared via Suzuki cross-coupling between heteroarylboronates and triflate 3. The pinacol ester of 4-pyridylboronic acid 5a requires rigourously anaerobic conditions to react.

STEREOCONTROLLED SYNTHESIS OF (E,E,E)-CHLOROTRIENES: EFFICIENT INTERMEDIATES FOR THE CONSTRUCTION OF all E CONJUGATED POLYENES

Benoit Crousse, Mouâd Alami,* and Gérard Linstrumelle

Ecole Normale Supérieure, Département de chimie associé au CNRS, 24 rue Lhomond, 75231 Paris Cedex 05, France

CONVENIENT SYNTHESIS OF AMINO-SUBSTITUTED PYRANOPYRANONES

Tetrahedron Letters, 1997, 38, 5301

Ming-Zhu Piao† and Kimiaki Imafuku*

†Department of Industrial Science, Graduate School of Science and Technology, Kumamoto University Department of Chemistry, Faculty of Science, Kumamoto University, Kurokami, Kumamoto 860, Japan

The title compounds were preparaed by using the arylmethylenemalononitrile derivatives as a building block for heteroannulation.

Cyanide Abstractions from Benzyl Isocyanides by Tri-n-Butyltin Radical: An Implication of Imbalanced Transition State and Entropy Control of Reactivities.

Tetrahedron Letters, 1997, 38, 5303

Sung Soo Kim*, Hoon Kim, and Ki Woong Yang

Department of Chemistry and Center for Molecular Dynamics, Inha University, Inchon 402-751, South Korea

A RADICAL CYCLIZATION STRATEGY FOR THE CONCISE TOTAL SYNTHESIS OF (±)-GEISSOSCHIZINE.

Tetrahedron Letters, 1997, 38, 5307

Hiromitsu Takayama,* Fumio Watanabe, Mariko Kitajima, and Norio Aimi Faculty of Pharmaceutical Sciences, Chiba University, 1-33, Yayoi-cho, Inage-ku, Chiba 263, Japan

The radical cyclization of the easily available vinyl iodide afforded the Corynantheoid compound and the novel pentacyclic skeleton, the former of which was converted to (±)-geissoschizine.

Pd-CATALYZED STEREOCONTROLLED SYNTHESIS OF Y-ALKYLIDENEBUTENOLIDE, FREELING YNE

Hajime Mori, Hiroaki Kubo, Hirokazu Hara, and Shigeo Katsumura* School of Science, Kwansei Gakuin University, Uegahara 1-1-155, Nishinomiya 662, Japan A stereocontrolled synthesis of freelingyne was established Pd(0) catalyzed coupling followed by Pd (II) catalyzed intramolecular stereoselective γ-(Z)-alkylidenebutenolide formation.

A NOVEL PHOTOCYCLOADDITION OF ALLYLIC SILANES TO 2,3-DICYANO-5,6-DIMETHYLPYRAZINE: FORMATION OF

Tetrahedron Letters, 1997, 38, 5313

2,8-DIAZABICYCLO[3.2.1.0^{6.8}]OCT-2-ENE DERIVATIVES. Gen-ichi Konishi, Kazuhiko Chiyonobu, Akira Sugimoto, and Kazuhiko Mizuno*, Department of Applied Chemistry, College of Engineering, Osaka Prefecture University, Sakai, Osaka 593, Japan

Irradiation of a benzene solution containing 2,3-dicyano-5,6-dimethylpyrazine with allylic silanes afforded 2,8-diazatricyclo[3.2.1.0^{4,8}]oct-2-ene derivatives.

PREPARATION OF BENZOFURANO-, BENZOTHIENO-, INDOLO-3-SULFOLENES AS PRECURSORS FOR

Tetrahedron Letters, 1997, 38, 5315

HETEROAROMATIC O-QUINODIMETHANES. Chung-Wen Ko and Ta-shue Chou*, Institute of Chemistry, Academia Sinica, Taipei and Department of Chemistry, National Taiwan University, Taipei, Taiwan, R.O.C.

SYNTHESIS OF 2,3-DIBROMOBENZONORBORNADIENE AND ITS CYCLOTRIMERIZATION INTO 5,18:6,11:12,17-

Tetrahedron Letters, 1997, 38, 5319

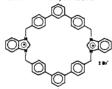
TRIMETHANOTRINAPHTHYLENE - Sergio Cossu,^a Ottorino De Lucchi,^{a*} Vittorio Lucchini,^b Giovanni Valle,^c Metin Balci,^{d*} Arif Dastan,^d Bahar Demirci^d - ^aDipartimento di Chimica, ^bDipartimento di Scienze Ambientali, Università Ca' Foscari di Venezia, I-30123 Venezia, Italy, ^cCentro Studi Biopolimeri del CNR, via Marzolo 1, I-35131 Padova, Italy, ^dDepartment of Chemistry, Atatürk University, 25240 Erzurum, Turkey.

META-TERPHENYLS AS BUILDING BLOCKS FOR BENZIMIDAZOLOPHANES

Perumal Rajakumar' and Muthialu Srisailas

Dept. of chemistry, Indian Institute of Technology, Madras 600 036, INDIA.

Benzimidazolophanes 1 and 2 were prepared from benzimidazole and the corresponding di- or tetrabromide.



A LARGE CAVITY MACROCYCLE FOR RECOGNITION OF DIANIONIC SUBSTRATES IN AQUEOUS SOLUTION. Andrea Bencini, Antonio Bianchi.

Tetrahedron Letters, 1997, 38, 5327

Claudia Giorgi, Piero Paoletti, Barbara Valtancoli, Department of Chemistry, University of Florence, Via Maragliano 75/77, 50144 Florence, Italy, Vieri Fusi, Institute of Chemical Sciences, University of Urbino, P^{Za} Rinascimento 6, 61029 Urbino, Italy.

Reaction of 4 with p-dibromo-xylene gives the cryptand L1, which behaves as a selective receptor for naphthalen disulfonate anions.

Synthesis of Novel Tricyclononanes

Tetrahedron Letters, 1997, 38, 5331

Goran Kragol and Kata Mlinarić-Majerski*

Ruđer Bošković Institute, Department of Chemistry, POB 1016, 10000 Zagreb, Croatia

Hitherto unknown tricyclo $[4.2.1.0^{1.8}]$ nonane derivatives II were prepared. The key step involves the single electron transfer induced ring-opening reaction of cyclopropyl ketone I.

APPROACHES TO THE SYNTHESIS OF UREAPEPTOID PEPTIDOMIMETICS

Tetrahedron Letters, 1997, 38, 5335

John A.W. Kruijtzer, Dirk J. Lefeber and Rob M.J. Liskamp*, Department of Medicinal Chemistry, Utrecht Institute for Pharmaceutical Sciences, Utrecht University, PO Box 80082, 3508 TB Utrecht, The Netherlands

A SIMPLE AND PRACTICAL APPROACH TO THE SYNTHESIS OF THE MARINE SPONGE PIGMENT FASCAPLYSIN AND RELATED COM-

POUNDS. Oleg S. Radchenko, Vyacheslav L. Novikov*, and George B. Elyakov,

Pacific Institute of Bio-Organic Chemistry, Far East Division, the Russian Academy of Sciences, 690022, Vladivostok, Russia.

Fascaplysin 1, an antimicrobial and cytotoxic pigment of Fascaplysinopsis sp., was synthesized in five steps from tryptamine in 44% overall yield. Analogues 15 and 16 were obtained from 3.4-dimethoxy- ∞ -aminoacetophenone via enones 13 and 14 in a like manner.

Tetrahedron Letters, 1997, 38, 5343

A NOVEL SYNTHESIS OF TRICYCLO[5.3.1.0^{1.5}]UNDECANES: TOTAL SYNTHESES OF 2-NORCEDRENE AND A FUNEBRENE ANALOGUE

H.K. Hariprakasha and G.S.R. Subba Rao*, Department of Organic Chemistry,

Indian Institute of Science, Bangalore-560 012, India.

A novel rearrangement method has been developed for the construction of the cedrene skeleton which led to the syntheses of 2-nor-cedrene and an analogue of funebrene.

PALLADIUM-CATALYZED SYNTHESIS OF TETRAETHYNYL AND TETRAETHENYL BIPHENYLS: ELONGATED TETRAHEDRAL TECTONS

Berta Gómoez-Lor, Antonio M. Echavarren,* and Amelia Santos

Departamento de Química Orgánica, Universidad Autónoma de Madrid, and Instituto de Ciencia de Materiales, CSIC, Cantoblanco, 28049 Madrid, Spain.

${\bf SYNTHESIS\ OF\ HIGHLY\ CONJUGATED\ BORON\ (III)}$

SUBPHTHALOCYANINES

Belén del Rey and Tomás Torres,* Dpto. de Química Orgánica (C-I), Facultad de Ciencias, Universidad Autónoma de Madrid 28049, Madrid, Spain.

Metal-mediated cross-coupling of alkynes has been applied for the first time to C-C bond formation in Subphthalocyanines. Highly conjugated Boron (III) Subphthalocyanines have been synthesized.

Tetrahedron Letters, 1997, 38, 5351

Tetrahedron Letters, 1997, 38, 5347

$$C \equiv CR$$
 $RC \equiv C$
 $R = TMS, C_3H_7, CH_2OCH_3, \rho-NO_2(C_6H_4)$

CONDENSATION OF ALL-E-RETINAL

Peter J. E. Verdegem, Menno C. F. Monnee, Patrick P. J. Mulder, and Johan Lugtenburg.

Leiden Institute of Chemistry, Gorlaeus Laboratories, Leiden University, P.O. Box 9502, 2300 RA Leiden. The Netherlands

Base induced condensation of all-E-retinal and two other α,β-unsaturated aldehydes.

Tetrahedron Letters, 1997, 38, 5359

PHOSPHORUS IN ORGANIC SYNTHESIS.

ACYLOXYPHOSPHONIUM SALTS AS CHEMOSELECTIVE

ACYLATING REAGENTS. Paul Frøyen, Department of Biotechnological Sciences, Agricultural University of Norway, P. O. Box 5040, N-1432 Ås, Norway

$$Ph_{3}P - O R Br + HO NH_{2} Pyridine NH_{2} NH_{2} Pyridine NH_{2} NH$$

$8\beta, 9\alpha, 10\beta\text{-RIMUANE} : A NOVEL, OPTICALLY ACTIVE, TRICYCLIC HYDROCARBON OF ALGAL ORIGIN$

Yongsong Huang, 1,2,* Torren M. Peakman² and Martin Murray² ¹Biogeochemistry Centre, c/o Department of Geology, University of Bristol, Bristol BS8 1RJ and ²School of Chemistry, University of Bristol, Bristol BS8 1TS

The structure of a novel tricyclic diterpane has been determined as 8B,90,10Brimuane by NMR spectroscopy and mass spectrometry and an algal origin inferred from its stable carbon isotopic composition.

Tetrahedron Letters, 1997, 38, 5363

ENANTIOSELECTIVE SYNTHESIS OF A PUTATIVE HEXAKETIDE INTERMEDIATE IN THE BIOSYNTHESIS OF THE SQUALESTATINS

Thomas J. Simpson, Robert W. Smith, Susan M. Westaway and Christine L. Willis* School of Chemistry, University of Bristol, Cantock's Close, Bristol BS8 1TS, UK

Antony D. Buss, Richard J. P. Cannell, Michael J. Dawson, Brian. A. M. Rudd Glaxo Wellcome Research and Development, Medicines Research Centre. Gunnels Wood Road, Stevenage SG1 2NY, UK.

A convergent synthesis of 4, a putative hexaketide intermediate in the biosynthesis of the squalestatins.

Tetrahedron Letters, 1997, 38, 5367

AN APPROACH TO A CARBOCYCLIC ANALOGUE OF CYCLIC ADENOSINE 5'-DIPHOSPHATE RIBOSE. THE SYNTHESIS AND BISPHOSPHORYLATION OF

N1-[(1S, 3R)-3-HYDROXYMETHYL)CYCLOPEN-1-YL]INOSINE. Simon M. Fortt and B.V.L. Potter*, Department of Medicinal Chemistry, School of Pharmacy and Pharmacology, University of Bath, Bath, BA2 7AY, UK.

[4+2] Cycloadditions between 2-Pyrones and Benzyne. Application to the Synthesis of Binaphthyls.

S. Escudero, D. Pérez, E. Guitián,* L. Castedo Universidad de Santiago. Santiago de Compostela. Spain

RADICAL CYCLISATION REACTIONS OF 7-BROMOINDOLES.

Tetrahedron Letters, 1997, 38, 5379

Tetrahedron Letters, 1997, 38, 5383

Tetrahedron Letters, 1997, 38, 5375

Adrian P. Dobbs, a Keith Jones*a and Ken T. Vealb

^a Department of Chemistry, King's College London, Strand, London WC2R 2LS, UK.

b SmithKline Beecham Pharmaceuticals, New Frontiers Science Park, Harlow, Essex CM19 5AD, UK.

AIBN Toluene



The synthesis of a range of indole radical precursors is described together with their subsequent radical cyclisation.

THE GENERATION AND CYCLISATION OF PYRIDINIUM RADICALS AS A POTENTIAL ROUTE TO INDOLIZIDINE ALKALOIDS

Adrian P. Dobbs, Keith Jones*a and Ken T. Vealb

^a Department of Chemistry, King's College London, Strand, London WC2R 2LS, UK.

b SmithKline Beecham Pharmaceuticals, New Frontiers Science Park, Harlow, Essex CM19 5AD, UK.



AIBN Toluene



The synthesis of a range of pyridinium radical precursors is described together with their subsequent radical cyclisation and hydrogenation.

SYNTHESIS OF SULFAMIDE LINKED DINUCLEOTIDE ANALOGUES.

Jason Micklefield* and Kevin J. Fettes.

Department of Chemistry, Birkbeck College, University of London, Gordon House, 29 Gordon Square, London WC1H 0PP.

3'- and 5'-amino nucleosides were coupled with the aid of catechol sulfate to give sulfamide linked dinucleosides d(TnsnT) and d(TnsnA).

TRANSIENT AFFINITY TAGS BASED ON THE Dde PROTECTION/ DEPROTECTION STRATEGY: SYNTHESIS AND APPLICATION OF 2-BIOTINYL- AND 2-HEXANOYLDIMEDONE

Barrie Kellam, Weng C. Chan, Siri Ram Chhabra and Barrie W. Bycroft* Department of Pharmaceutical Sciences, University of Nottingham, University Park, Nottingham NG7 2RD, England

Dde based affinity tags (1) and (2) are conveniently prepared in high yields from dimedone and the corresponding acid. These novel tags are attached without activation to the *N*-terminus of resin bound peptides. Following acidolysis and affinity purification on an appropriate column, the pure peptide is released with 5% aqueous hydrazine.

Tetrahedron Letters, 1997, 38, 5391

Tetrahedron Letters, 1997, 38, 5395

Tetrahedron Letters, 1997, 38, 5399

An IMDA Approach to Tigliane and Daphnane Diterpenoids: Introduction of the C-12, C-13 C Ring Oxygenation of Phorbol Philip C Bulman Page,* David C Jennens, and Heather McFarland

Department of Chemistry, Loughborough University, Loughborough, Leicestershire LE11 3TU, England

A synthesis of the tricyclic ring system of the daphnane and

A synthesis of the tricyclic ring system of the daphnane and tigliane diterpenes, incorporating the C-12 and C-13 hydroxy groups found in phorbol and its relatives, has been achieved in seven steps using an intramolecular Diels-Alder reaction as the key stereocontrolling process.

A Simple Route To 4-Substituted-3,4-Didehydroprolines. Mechanistic Probes For The Inhibition of Prolyl-4-Hydroxylase.

Ari M.P. Koskinen*, Jörg Schwerdtfeger and Michael Edmonds Department of Chemistry, University of Oulu, FI-90570 Oulu, Finland

Pd mediated coupling of the prolinone derived enoltriflate 3 with trimethylalkyltin, trimethylaryltin, trimethylalkenyltin and carbon monoxide proceeds to give the 4-substituted-3,4-didehydroprolines.