REACTION OF ARYL CHROMIUM CARBENE COMPLEXES WITH 1-HEXYNE; FORMATION OF UNUSUAL DIELS-ALDER CYCLOADDITION PRODUCTS Research Laboratories, The Upjohn Company, Kalamazoo, Michigan 49001

Tetrahedron Lett.29,2513(1988)

Reaction of phenylchromium carbene complex with 1-hexyne in THF formed the naphthol as a major product along with two unusual Diels-Alder cycloaddition products. On the other hand, the same reaction in the presence of Ac<sub>2</sub>O and NEt<sub>3</sub> produced

Tetrahedron Lett.29,2517(1988)

TOTAL SYNTHESIS OF THE AGLYCONE OF THE 8-METHYL BENZONAPH-THOPYRONE ANTIBIOTICS,GILVO- & ALBACARCIN M, VIRENOMYCIN M

Michael E. Jung\* and Young H. Jung, Department of Chemistry and Biochemistry, University of California, Los Angeles, CA 90024 A short, convergent synthesis of the aglycone 5a of the 8-methyl benzonaphthopyrone antibiotics is described which utilizes as a key step a Suzuki biaryl coupling between the aryl iodide 11 and the boronic acid 9 to give the biaryl 15, and thence 5a.

SYNTHESIS OF THE FUSED BICYCLIC LACTAM-LACTONE TERMINUS OF NEOCKAZOLOMYCIN BY A NOVEL DIANION CYCLOCONDENSATION Andrew S. Kende\* and Robert J. DeVita

Tetrahedron Lett. 29,2521 (1988)

Department of Chemistry, University of Rochester, Rochester, New York 14627

Reaction of the diamion 5 with lactate 6 yields  $\beta$ -hydroxylactams 7 and 8 in a 2:1 ratio. Lactam 7 can be transformed into 12, a chiral model of the antibiotic necoxazolomycin.

Tetrahedron Lett.29,2525(1988)

## SYNTHESIS OF N, N' DISUBSTITUTED UREAS FROM CARBAMATES

Anwer Basha, Immunosciences Research Area, Department 47K, Abbott Laboratories, Abbott Park, Illinois 60064

A simple synthesis of N, N'-disubstituted ureas from carbamates is described involving displacement of an alkoxy group by the magnesium salt of an amine generated in situ by treatment with ethylmagnesium bromide.

DIMERIC PRODUCTS FROM THE DISSOLVING METAL REDUCTION OF CAMPHOR

Tetrahedron Lett.29,2527(1988)

J.W. Huffman, R.H. Wallace and W.T. Pennington Howard L. Hunter Chemistry Laboratories, Clemson University, Clemson, SC 29634

(+)-Camphor with Li/THF or Li/NH $_3$  gives a dimeric hydroxy ketone in which one bicyclic ring has been cleaved in addition to the expected pinacols. ( $\pm$ )-Camphor affords ( $\pm$ )-exoendo, (+)-endo-endo, meso endo-endo pinacols and ( $\pm$ ) hydroxy ketone.

Tetrahedron Lett.29,2531(1988)

### AN EFFICIENT METHOD FOR THE PREPARATION OF ALKYLIDENECYCLOPROPANES

Jeffrey A. Stafford and John E. McMurry\*

Baker Laboratory, Department of Chemistry, Cornell University, Ithaca, NY 14853

Wittig reactions of cyclopropylidenetriphenylphosphorane using the phase-transfer catalyst, TDA-1, are described.

GENERAL APPROACH TO THE SYNTHESIS OF POLYQUINENES VII. SYNTHESIS OF A CENTRO-SUBSTITUTED TRIQUINACENE.

Tetrahedron Lett. 29,2535 (1988)

A. K. Gupta, U. Weiss and J. M. Cook, Department of Chemistry, University of Wisconsin-Milwaukee, Milwaukee, WI 53201 and NIDDK, Bethesda, MD 20892.

The Weiss reaction between 4 and 5, followed by several steps provided monol 11. This was converted in two steps into 3, as illustrated.

$$\begin{array}{c} RO_2C \\ O \\ RO_2C \\ A \\ \end{array}$$

Tetrahedron Lett.<u>29</u>,2539(1988)

SYNTHETIC APPROACHES TO BREVIANAMIDES A AND B I. PREPARATION OF 4-D-METHOXYBENZYL-5-(1'-CARBOMETHOXY-2'-[1",1"-DIMETHYLALLYL-2',3'DIHYDROINDOLE]METHYLIDENE)-1,2-L-PYROLIDINOPIPERAZINE-3,6-DIONE VIA AN IRBLAND ESTER ENOLATE CLAISEN REARRANGEMENT.

Lois V. Dunkerton\*, Hao Chen, and Bruce P. McKillican1

Department of Chemistry and Biochemistry, Southern Illinois University,

Carbondale, IL 62901

Using an ester enclate Claisen rearrangement to prepare 1-carbomethoxy-2-(1',1'-dimethylally1)-2,3-dihydroindole-2-carboxylic acid followed by condensation with N-p-methoxybenzyl-glycyl-L-proline anhydride gave the title compound, a key intermediate in a synthetic approach to brevianamides A and B.

1 R = R' = H, X = 0 3 X = H<sub>2</sub>

### Tetrahedron Lett.29,2543(1988)

#### PHOTOCHEMISTRY OF BENZOCYCLOBUTENE

N.J. Turro, Z. Zhang, W.S. Trahanovsky, and C.H. Chou bepartment of Chemistry, Columbia University, New York, NY 10027 Department of Chemistry, Iowa State University, Ames, Iowa 50011

# DIASTEREOSELECTIVE REACTIONS OF AN ACYCLIC $\alpha$ -LITHIATED SULFIDE: A CASE OF THERMODYNAMIC CONTROL

Tetrahedron Lett. 29,2547(1988)

Patrick G. McDougal\*, Brian D. Condon, Miquel D. Laffosse, Jr., Andrea M. Lauro and Don VanDerveer School of Chemistry, Georgia Institute of Technology, Atlanta, Georgia 30332

## INTERACTION OF THE CARBON-TIN BOND WITH BETA POSITIVE CHARGE

Tetrahedron Lett.<u>29</u>,2551(1988)

Joseph B. Lambert\* and Gen-tai Wang

Department of Chemistry, Northwestern University, Evanston, Illinois 60208

Carbon-tin participation in  $\beta$  carbocation formation is independent of solvent nucleophilicity and dependent on Sn-C-C-X stereochemistry. The dominant mechanism appears to be hyperconjugation. OCOCF,

### Biosynthesis of 8-R-HPETE and Preclavulone-A from Arachidonate in Several Species of Caribbean Coral. A Widespread Route to Marine Prostanoids.

Tetrahedron Lett.<u>29</u>,2555(1988)

E. J. Corey, Seiichi P. T. Matsuda, Ryu Nagata and Martin B. Cleaver Department of Chemistry, Harvard University, Cambridge, Massachusetts, 02138

Tetrahedron Lett.29,2559(1988)

THE EXTRAORDINARY SELECTIVITY OF METHOXYPHENYLCARBENE:

THE CASE OF THE CURIOUS "OLEFIN". R.A. Moss and

J. Wlostowska, Department of Chemistry, Rutgers University, New Brunswick, N.J. 08903

The reaction of MeOCPh with  $Me_2C$ - $Me_2$  gives a low yield of the appropriate cyclopropane, but aged olefin, containing traces of hydroperoxide (a) or alcohol (b) as impurities, selectively affords the formal OH "insertion" products.

$$CH_2$$
= $CMeCMe_2OOH$  (a)  $CH_2$ = $CMeCMe_2OH$  (b) (a) (b)

Tetrahedron Lett.29,2563(1988)

SYNTHESES OF 4(R)-SILYLOXY-6(S)-IODOMETHYL-TETRAHYDROPYRAN-2-ONE AND ITS ENANTIOMER, BUILDING BLOCKS FOR HMG-COA-REDUCTASE INHIBITORS.

E.Baader, W.Bartmann, G.Beck, A.Bergmann, H.-W.Fehlhaber, H.Jendralla, K.Kesseler, R.Saric, H.Schüssler, V.Teetz, M.Weber, G.Wess

Hoechst AG, Pharma Forschung, Postfach 800320, D-6230 Frankfurt a.M. 80

17% overall yield >99% ee

 $\alpha$ -D-(+)-glucose

37% overall yield 70% ee

REACTIVITE SRN1 D'(ONITROALKYL)-1 IMIDAZOLES :

Tetrahedron Lett.29,2567(1988)

SYNTHESE D'IMIDAZOLES ALCOYLES EN POSITION 1 PAR DES CHAINES RAMIFIEES ET FONCTIONNALISEES R. Beugelmans, T. Frinault et A. Lechevallier Institut de Chimie des Substances Naturelles, C.N.R.S. 91198  $Gif_{\overline{A}}sur-Yvette, France$ D. Kiffer et Ph. Maillos Centre d'Etude du Bouchet, BP 3, 91170 Vert le Petit, France

Gem-nitro imidazolyl alkanes reacting under S<sub>RN</sub>1 conditions undergo nitro group replacement by variously substituted nitronates

A MECHANISTIC APPROACH TO THE REACTION BETWEEN IMINES AND SODIUM HYDROGEN TELLURIDE

Tetrahedron Lett.29,2571(1988)

Derek H.R. Barton, Luis Bohé and Xavier Lusinchi Institut de Chimie des Substances Naturelles, C.N.R.S., 91198 Gif-sur-Yvette, France

A study of the mechanism of the action of sodium hydrogen telluride on imines is presented. It accounts for the observed reduction of the imine function to secondary amino or methylene groups depending on the structure of the substrate.

Tetrahedron Lett.29,2575(1988)

DIASTEREOTOPIC SELECTION OF C2 HYDROGENS IN THE REARRANGEMENT OF C1-SUBSTITUTED EPOXIDES: AN EXAMINATION OF STYRENE OXIDE.

J.M. Coxon and D.Q. McDonald Department of Chemistry, University of Canterbury, Christchurch, New Zealand.

H<sub>b</sub> migration is favoured to H<sub>a</sub> migration in the rearrangement to aldehyde by 1.4 and 1.14 times respectively when catalysed by LiCIO, and BFa.

CH, CH, COMe

(13)

REACTIONS ON SOLID SUPPORTS PART IV1 : REACTIONS OF αβ-UNSATURATED CARBONYL COMPOUNDS WITH INDOLES

USING CLAY AS CATALYST Z. Iqbal, A.H. Jackson\* and K.R.N. Rao Department of Chemistry, University College, Cardiff CF1 1XL

Indoles react with αβ-unsaturated carbonyl compounds to give substituted indoles; in one case a 3-benzyl substituent was displaced into the 2-position by the incoming electrophile, thus confirming that electrophilic substitution in indole occurs primarily at the 3-position.

Tetrahedron Lett.29,2581(1988)

(5) R . Me

(6) R = OMe

DESILYLATION OF α-TRIMETHYLSILYLMETHYLENE-7-LACTONES.

A NEW ROUTE TO α-METHYLENE-σ-LACTONES

Mario D. Bachi\* and Eric Bosch

Department of Organic Chemistry, The Weizmann Institute of Science, Rehovot 76100, Israel

SOME STUDIES ON 6,7-UNSATURATED CARBONYL RADICAL CYCLIZATIONS

Tetrahedron Lett.29,2585(1988)

David Crich\* and Simon M. Fortt, Department of Chemistry, University College London, 20 Gordon Street, London WC1H OAJ, U.K.

6,7-Unsaturated carbonyl radicals cyclize to give mixtures of cyclohexanones and cycloheptanones

Tetrahedron Lett.29,2589(1988)

## BACTERIA IN ORGANIC SYNTHESIS: SELECTIVE CONVERSION OF 1,3-DICYANOBENZENE INTO 3-CYANOBENZOIC ACID

Carmela Bengis-Garber and Arie L. Gutman\*, Department of Chemistry, Technion-Israel Institute of Technology, Haifa 32000, Israel.

Suspensions of Rhodococcus rhodochrous NCIB 11,216 catalyse hydrolysis of dinitriles into cyanocarboxylic acids under mild conditions,

<sup>13</sup>C-N.M.R. STUDIES ON THE PYRROMETHANE COFACTOR OF HYDROXYMETHYLBILANE SYNTHASE

Uwe Beifuss, Graham J. Hart, Andrew D. Miller and Alan R. Battersby, University Chemical Laboratory, Lensfield Road, Cambridge, CB2 1EW, U.K.

The pyrromethane cofactor of the enzyme hydroxymethylbilane synthase is proved to be bound to the sulphur of cysteine.

Tetrahedron Lett.29,2591(1988)

Tetrahedron Lett.29,2595(1988)

Chemical Transformations of S541 Factors (A)-(D): Preparation and Reactions of the 23-Ketones.

N.E. Beddall, P.D. Howes, M.V.J. Ramsay, S.M. Roberts, A.M.Z. Slawin, D.R. Sutherland, E.P. Tiley and D.J. Williams

(a) Department of Microbiological Chemistry or (c) Development Department, Glaxo Group Research, Greenford, Middlesex UB6 OHE,(b) Department of Chemistry, Imperial College of Science and Technology, South Kensington, London SW7 2AY, U.K.

The stereoselectivities of some reactions involving the ketones [(1)  $R_1 = R_2 = Me$ , X = O;  $R_1 = H$ ,  $R_2 = {}^{i}Pr$ , X = O] have been investigated.

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Tetrahedron Lett.29,2599(1988)

Unusual Long Chain Ketones of Algal Origin.

J.A. Rechka and J.R. Maxwell\*

Organic Geochemistry Unit, School of Chemistry, University of Bristol, Cantock's Close, Bristol BS8 1TS, U.K.

Synthesis of all-E and all-Z 1-3 has shown that the natural compounds in algae and sediments have the unexpected E configuration.

 $\begin{aligned} & \mathbf{C_{14}H_{29}CH=CH(CH_{2})_5CH=CH(CH_{2})_{12}COCH_{3}} & 1 \\ & \mathbf{C_{14}H_{29}CH=CH(CH_{2})_5CH=CH(CH_{2})_5CH=CH(CH_{2})_5COCH_{3}} & 2 \\ & \mathbf{C_{7}H_{15}CH=CH(CH_{2})_5CH=CH(CH_{2})_5CH=CH(CH_{2})_5COCH_{3}} & 3 \end{aligned}$