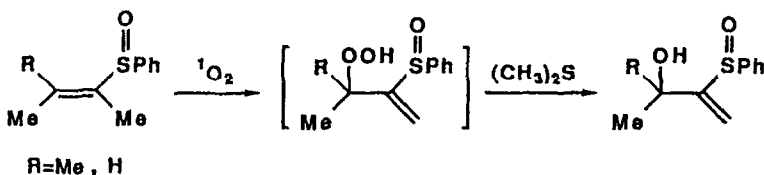


GRAPHICAL ABSTRACTS

Tetrahedron 45, 6657, (1989)

SINGLET OXYGEN AND TRIAZOLINEDIONE ADDITIONS TO α,β -UNSATURATED SULFOXIDES

Takeshi AKASAKA, Yoshihisa MISAWA, Midori GOTO, and Wataru ANDO*
Department of Chemistry, University of Tsukuba, Tsukuba, Ibaraki 305, Japan



Tetrahedron 45, 6667, (1989)

DONOR SUBSTITUTED SULFONYL CARBENES - 1.

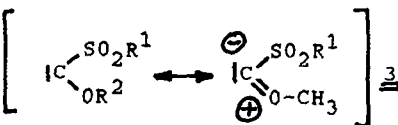
METHOXY ARYLSULFONYL CARBENES

Kurt Schank*, Aboel-Magd A. Abdel Wahab[†], Peter Eigen, and Jürgen Jäger

* Department of Organic Chemistry, University of D-6600 Saarbrücken, FRG

[†] Faculty of Science, Chemistry Department, Assiut Univ., Assiut, EGYPT

Self-decompositions as well as trapping reactions of the title carbenes **3** are described, the stereochemistry of cyclopropanation products is studied by n.m.r. experiments (Eu(FOD)₃-shifting, COSY 45 method, NOE-experiment).

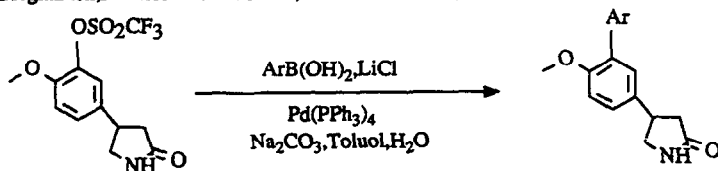


Tetrahedron 45, 6679, (1989)

SYNTHESIS OF DIARYLIC COMPOUNDS BY PALLADIUM-CATALYZED REACTION OF AROMATIC TRIFLATES WITH

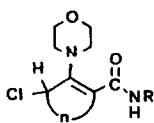
BORONIC ACIDS - A.HUTH*, J.BEETZ and L.SCHUMANN -

Research Laboratories of the Schering AG
Berlin and Bergkamen, Müllerstrasse 170-178, D-1000-Berlin-65, F.R.G.



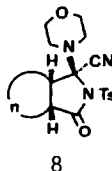
FUNCTIONALIZED CHLOROENAMINES IN AMINOCYCLOPROPANE SYNTHESIS IV. A SYNTHESIS FOR BICYCLIC LACTAMS FROM CARBAMOYLATED CHLOROENAMINES - THE RESULT OF A TANDEM RING CONTRACTION - CYCLIZATION PROCESS

E. Vilsmaier,* R. Adam, P. Altmeier, J. Fath, H.-J. Scherer, G. Maas and O. Wagner
 Fachbereich Chemie der Universität Kaiserslautern, D-6750 Kaiserslautern, West Germany

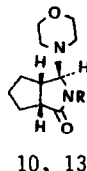


6: R = Ts
 11: R = Phenyl

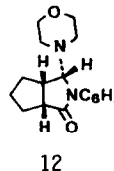
Bicyclic compounds 8, 10, 12, 13 and 20 could be obtained from the carbamoylated chloroenamines 6 or 11 and nucleophiles such as cyanide or hydride.



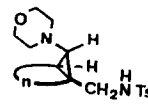
8



10, 13



12



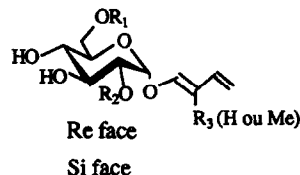
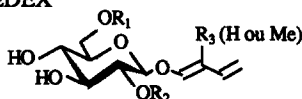
20

Stereochemical Variations In Aqueous Cycloadditions using Glyco-organic Substrates as a Consequence of Chemical Manipulations on the Sugar Moiety.

André LUBINEAU and Yves QUENEAU, Laboratoire de Chimie Organique Multifonctionnelle, Bat. 420, Université Paris-Sud, 91405 ORSAY CEDEX

Facial Selectivity with Methacrolein :

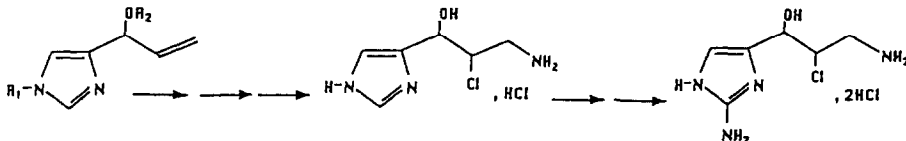
R₁ = H R₂ = Benzyl Si face
 R₁ = Benzyl R₂ = H Re face



Re face
 Si face

PREMIÈRE SYNTHÈSE TOTALE DE LA GIROLLINE

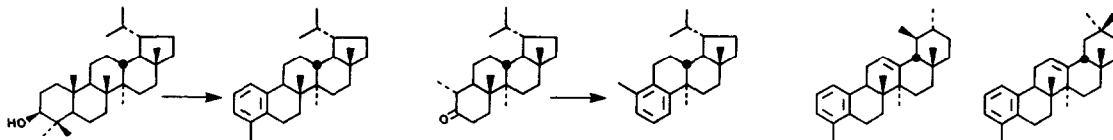
Manuel BEDOYA ZURITA, Alain AHOND, Christiane POUPAT et Pierre POTIER
 Institut de Chimie des Substances Naturelles du CNRS, 91198 Gif-sur-Yvette Cedex (FRANCE)



NOVEL MONOAROMATIC TRITERPENOID HYDROCARBONS OCCURRING IN SEDIMENTS

G.A. Wolff, J.M. Trendel and P. Albrecht - Laboratoire de G ochimie Organique, URA 31 du CNRS, D partement de Chimie, Universit  Louis Pasteur, 1 rue Blaise Pascal, 67008 Strasbourg, France

Synthesis and identification in sediments of four monoaromatic hydrocarbons derived from 3-oxy-triterpenes

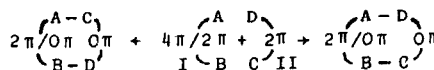


DETERMINATION OF REGIOSELECTIVITY OF CYCLOADDITION REACTIONS FROM ELECTRONEGATIVITY OF THE ACTIVE CENTRES

S.K.Pal

Department of Chemistry, Presidency College, Calcutta - 700 073, India

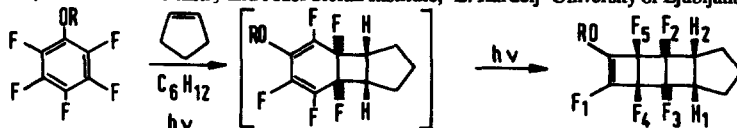
An eqn. $\Delta E = E_1 - E_2 = K \cdot (\chi_A - \chi_B)(\chi_C - \chi_D) / (\chi_A - \chi_D)(\chi_B - \chi_C)$ has been derived to determine regioselectivity of the cycloaddition reaction between I and II, where ΔE = difference of energy change of the two modes of the reaction, K = constant and χ_A , χ_B , χ_C and χ_D are the inherent electronegativities of the active centres.



THE EFFECT OF THE ALKOXY GROUP AND THE STRUCTURE OF THE CYCLOALKENE ON 2+2 PHOTOCYCLOADDITION TO ALKOXY SUBSTITUTED PENTAFLUOROBENZENE

Boris  ket and Marko Zupan

Department of Chemistry and Jo ef Stefan Institute, "E. Kardelj" University of Ljubljana, 61000 Ljubljana, Yugoslavia

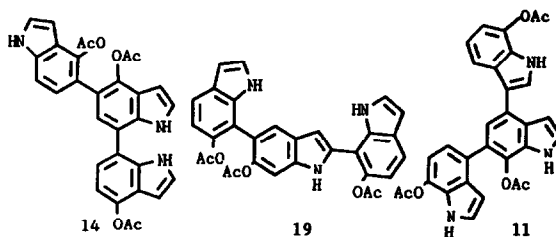


The photoreaction of alkoxy substituted pentafluorobenzene with cycloalkenes is described.

OXIDATION OF 4-, 6- AND 7-HYDROXYINDOLES

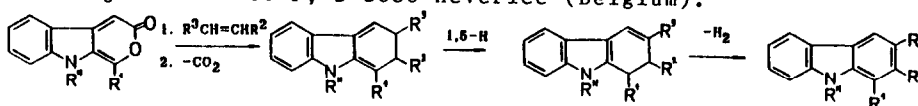
A. Napolitano¹, M. d'Ischia¹, G. Prota^{1*}
 T.M. Schultz², L.J. Wolfram². ¹Dept. Org.
 Biol. Chem., Univ. Naples, Italy; ²L.M. Gelb
 Res. Foundation, Stamford, CT, USA.

Periodate oxidation of 4-, 6- and 7-hydroxyindole affords complex mixtures of oligomeric products, including the representative trimers 11, 14 and 19, as well as related dimers and tetramers.



DIELS-ALDER REACTIONS OF PYRANO(3,4-b)INDOL-3-ONES WITH OLEFINIC COMPOUNDS : SYNTHESIS OF (1,2-DIHYDRO)CARBAZOLES.

P. Van Doren, D. Vanderzande, S. Toppet and G. Hoornaert*.
 Laboratory of Organic Synthesis, Department of Chemistry, KU-Leuven
 Celestijnenlaan 200 F, B-3030 Heverlee (Belgium).



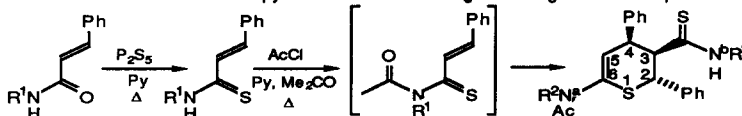
GENERATION AND CYCLOADDITIONS OF 2-(N-ACYLAMINO)-1-THIA-1,3-DIENES. PART 1

Ian T. Barnish,^b Colin W. G. Fishwick,^a David R. Hill^a and Csaba Szantay Jr.^a

^a The University of Leeds, School of Chemistry, Leeds LS2 9JT, U. K.

^b Pfizer Central Research, Sandwich, Kent CT13 9NJ, U.K.

2-(N-Acylamino)-1-thia-1,3-dienes, generated via acylation of the corresponding thioamides, undergo irreversible regio- and stereospecific Diels-Alder addition to the starting thioamides to yield 6-(N-acylamino)-3,4-dihydro-2H-thiopyrans. Structural details of the thiopyrans have been investigated using NMR techniques.



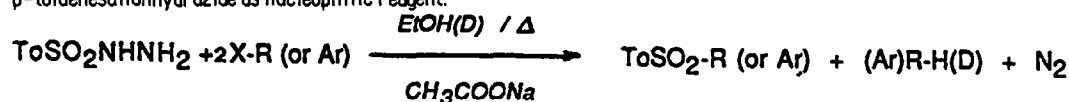
Tetrahedron 45, 6791, (1989)

A NEW GENERAL SYNTHESIS OF SULFONES FROM ALKYL
OR ARYL HALIDES AND p-TOLUENESULFONHYDRAZIDE

R Ballini*, E. Marcantoni and M. Petrini

Dipartimento di Scienze Chimiche, Via S. Agostino 1 - 62032 Camerino, ITALY

A new general synthesis of sulfones are reported from alkyl or aryl halides and commercially p-toluenesulfonhydrazide as nucleophilic reagent.



Tetrahedron 45, 6799, (1989)

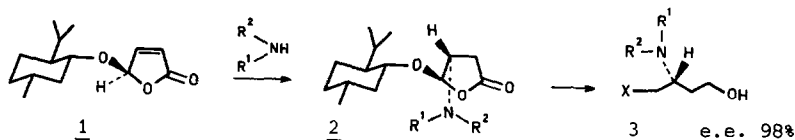
ASYMMETRIC 1,4-ADDITIONS TO 5-ALKOXY-2[5H]-FURANONES.

ENANTIOSELECTIVE SYNTHESIS AND ABSOLUTE CONFIGURATION

DETERMINATION OF β -AMINO- γ -BUTYROLACTONES AND AMINO DIOLS

B. de Lange, F. van Bolhuis and B.L. Feringa*

Department of Organic Chemistry, University of Groningen, Nijenborgh 16, 9747 AG Groningen, The Netherlands



Tetrahedron 45, 6819, (1989)

PHENYLSELENO-LACTONIZATION OF OLEFINIC NITRILES

PROMOTED BY PEROXYDISULPHATE IONS OXIDATION

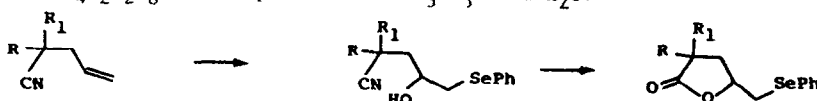
OF DIPHENYL DISELENIDE.

M. Tiecco, L. Testaferri, M. Tingoli, and D. Bartoli

Istituto di Chimica Organica, Facoltà di Farmacia, Università di Perugia, Italy.

Phenylselenolactones are produced by the reaction of olefinic nitriles with

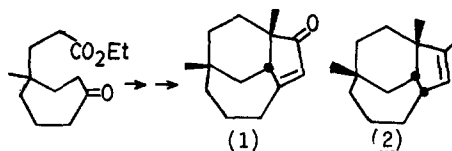
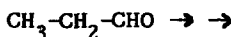
PhSeSePh, $(\text{NH}_4)_2\text{S}_2\text{O}_8$ in the presence of $\text{CF}_3\text{SO}_3\text{H}$ and H_2O .



A FORMAL STEREOCONTROLLED SYNTHESIS OF (±) ISOCLOVENE

Zafer Ahmad, P. Goswami and R.V. Venkateswaran
Department of Organic Chemistry, Indian Association for the
Cultivation of Science, Jadavpur, Calcutta - 700 032, INDIA

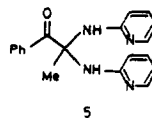
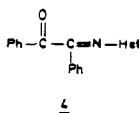
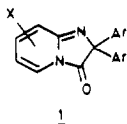
Stereocontrolled synthesis of tricyclic ketone (1) is described, constituting a formal total synthesis of isoclovene (2).



THE REACTION OF α -DIKETONES WITH PRIMARY HETEROAROMATIC ANINES. SYNTHESIS AND REACTIONS OF IMIDAZO[1,2-a]PYRIDIN- -3(2H)-ONES AND *N*-HETEROARYL α -IMINOKETONES

Benito Alcaide*, Joaquín Plumet, and Miguel A. Sierra
Dpto. Química Orgánica, Facultad de Química, Universidad Complutense, 28040-Madrid, SPAIN

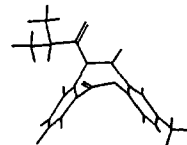
Reaction of the title compounds gives compounds 1, 4, and 5 depending on the nature of the reagents. Some new reactions of 1 with retention or not of the bicyclic structure are also described.



CONFORMATIONAL ANALYSIS OF SOME 11,12-DIHYDRODIBENZ[b,f]- OXAZOCIN-6-ONE DERIVATIVES BY NMR SPECTROSCOPY

M.C. Aversa,* P. Bonaccorsi, P. Giannetto, Dipartimento di Chimica organica
e biologica, Università di Messina, Italy, and D.A. Leigh,* National
Research Council Canada, Ottawa, Ontario, Canada K1A 0R8

The conformational analysis of some 11-acyl-11,12-dihydrodibenz[b,f]-
[1,5]oxazocin-6-ones was carried out by variable temperature 200 MHz ¹H NMR
spectroscopy. The preferred conformers are boat:boat, where the alkyl
substituent bonded to the exocyclic carbonyl carbon atom is *trans* to the
benzylic methylene group. The interpretation of the experimental results is
supported by molecular mechanics calculations.

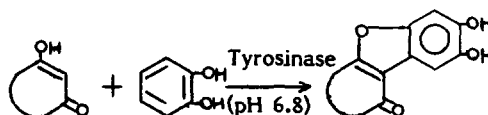


Tetrahedron 45, 6867, (1989)

MUSHROOM TYROSINASE CATALYSED SYNTHESIS OF COUMESTANS, BENZOFURAN DERIVATIVES AND RELATED HETEROCYCLIC COMPOUNDS

G. Pandey, C. Muralikrishna & U.T. Bhalaria*
Organic Division, IICT, Hyderabad 500 007, India

Full details of an improved synthesis of coumestan derivatives and their structural analogues is described.



Tetrahedron 45, 6875, (1989)

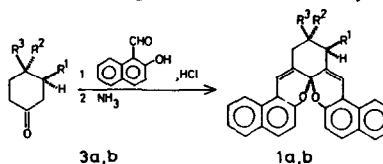
DIASTEREOSELECTIVE FORMATION OF CHIRAL 2,2'-SPIROBIBENZ[d]CHROMENE DERIVATIVES.

EVIDENCE FROM CIRCULAR DICHROISM AND CRYSTALLOGRAPHIC DATA

Jacek Gawronski*, Krystyna Gawronska and Andrzej Katrusiak*

Faculty of Chemistry, A. Mickiewicz University, 60780 Poznan, Poland

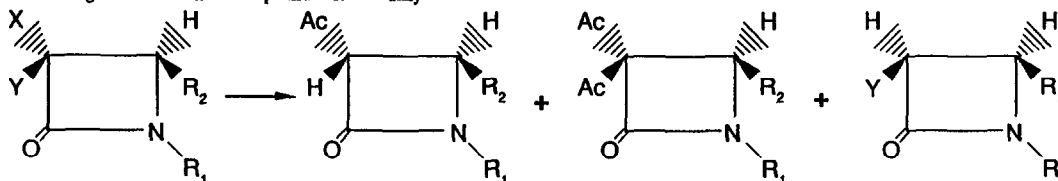
2,2'-Spirobibenz[d]chromene derivatives **1a,b** are formed diastereoselectively from chiral ketones **3a,b**



Tetrahedron 45, 6885, (1989)

ELECTROCHEMICAL STUDIES ON β -LACTAMS. PART 4. ELECTROACETYLATION OF β -LACTAMS.

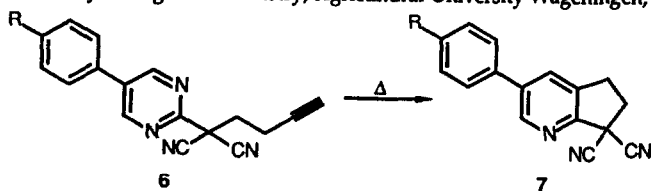
M.A. CASADEI, A. INESI, F. MICHELETTI MORACCI and D. OCCHIALINI
Università degli Studi di Roma "La Sapienza" - Roma - Italy



**SUBSTITUENT EFFECTS IN THE INTRAMOLECULAR INVERSE
ELECTRON DEMAND DIELS-ALDER REACTIONS OF 5-(*p*-SUBSTITUTED
PHENYL)-2-(1,1-DICYANOPENT-4-YN-1-YL)PYRIMIDINES.**

A.E. Frissen, A.T.M. Marcelis, W.C. Melger and H.C. van der Plas*,

Laboratory of Organic Chemistry, Agricultural University Wageningen, Dreyenplein 8, 6703 HB Wageningen



A Hammett plot of $\log k_R/k_H$ against the σ values for *p*-substituents reveals a linear relationship with a positive slope $\rho = 0.061$ for the conversion of 6 into 7.