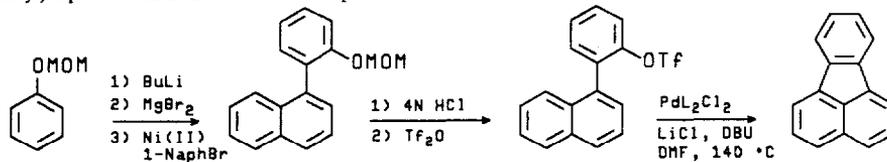


*Tetrahedron Lett.* 1992, 33, 1675

**A Palladium-Catalyzed Intramolecular Arene-Triflate Coupling for the Synthesis of Fluoranthenes and Benzofluoranthenes.**  
Joseph E. Rice and Zhen-Wei Cai, Department of Pharmaceutical Chemistry, Rutgers - The State University of New Jersey, College of Pharmacy, Piscataway, NJ 08855-0789

Fluoranthenes and benzofluoranthenes are prepared by intramolecular palladium-catalyzed coupling of 1-(2-trifloxyphenyl)naphthalenes or benzannulated naphthalenes.

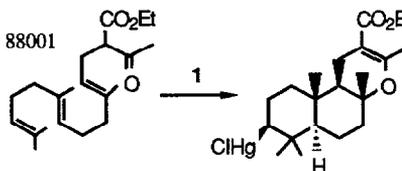


*Tetrahedron Lett.* 1992, 33, 1679

**POLYENE CYCLIZATIONS USING MERCURY(II) TRIFLATE  
N,N-DIMETHYLANILINE COMPLEX--PARTICIPATION BY  
INTERNAL NUCLEOPHILES**

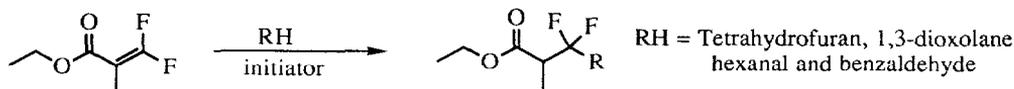
Aravamudan S. Gopalan\*, Robert Prieto, Britta Mueller, and David Peters  
Department of Chemistry, New Mexico State University, Las Cruces, NM 88001

The ability of oxygen nucleophiles to serve as terminators in Hg(OTf)<sub>2</sub> C<sub>6</sub>H<sub>5</sub>N(CH<sub>3</sub>)<sub>2</sub> (1), assisted cyclization of polyenes leading to tricyclic intermediates was studied.



*Tetrahedron Lett.* 1992, 33, 1683

**RADICAL ADDITIONS TO β,β-DIFLUOROACRYLATES** Carl L. Bumgardner\* and Jason P. Burgess, Department of Chemistry North Carolina State University Raleigh NC, USA 27695-8204. Tetrahydrofuran, 1,3-dioxolane, hexanal and benzaldehyde react readily with β,β-difluoroacrylates under free radical conditions to furnish adducts in moderate to high yields. The products of the reaction have not been previously reported.

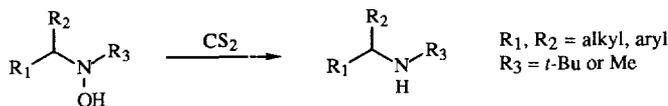


*Tetrahedron Lett.* 1992, 33, 1687

**DEOXYGENATION OF N,N-DISUBSTITUTED HYDROXYLAMINES BY CARBON DISULFIDE**

Martin A. Schwartz\*, Jiping Gu and Xiufeng Hu  
Department of Chemistry, Florida State University, Tallahassee, Florida 32306

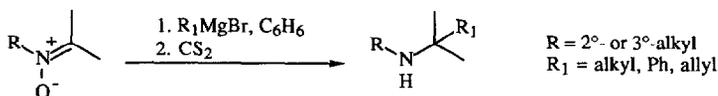
Hindered N,N-dialkylhydroxylamines react rapidly with CS<sub>2</sub> to give the corresponding 2°-amines.



### SYNTHESIS OF HINDERED SECONDARY AMINES VIA GRIGNARD REAGENT ADDITION TO KETONITRONES

Martin A. Schwartz\* and Xiufeng Hu  
Department of Chemistry, Florida State University, Tallahassee, Florida 32306

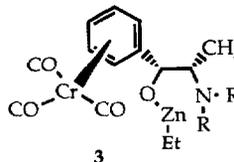
Hindered 2°-amines, including di-tert-butylamine, are readily prepared by Grignard addition to ketonitrones followed by deoxygenation with CS<sub>2</sub>.



### Chiral Arene Chromium Tricarbonyl Complexes As Enantioselective Catalysts: Highly Selective 1,2 Alkyl Additions To Aldehydes

Steven B. Heaton and Graham B. Jones\*, Department of Chemistry, Clemson University, Clemson, SC 29634 - 1905 U.S.A.

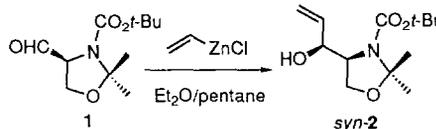
Catalysts of type 3 mediate the addition of diethyl zinc to aldehydes in >99% e.e.



### DIASTEREOSELECTIVE ADDITION OF VINYL ORGANOMETALLIC REAGENTS TO L-SERINAL.

Robert S. Coleman\* and Andrew J. Carpenter  
Department of Chemistry and Biochemistry  
University of South Carolina  
Columbia, South Carolina 29208

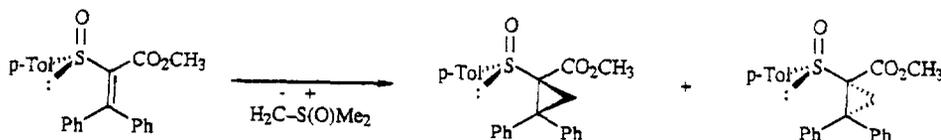
Vinylzinc chloride in nonpolar solvents was found to add to the aldehyde carbonyl of 1 with 6:1 syn/anti stereoselectivity to afford syn-2 in excellent yields.



### A NEW APPROACH TO THE ASYMMETRIC CYCLOPROPANATION VIA A CHIRAL SULFINYL GROUP

Chafiq Hamdouchi

Dittmer Laboratories of Chemistry, Florida State University, Tallahassee, FL 32306

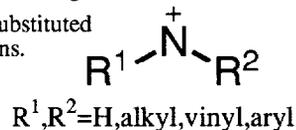


### Aryl- and Alkylnitrenium Ions: Singlet-Triplet Gaps via Ab Initio and Semi-Empirical Methods

Daniel E. Falvey\*§ and Christopher J. Cramer\*‡

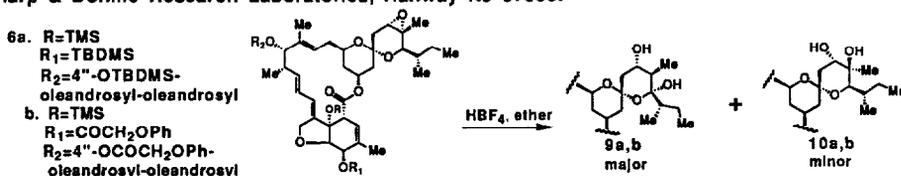
§Department of Chemistry and Biochemistry, University of Maryland, College Park, MD 20742. ‡U.S. Army Chemical Research Development and Engineering Center, Aberdeen Proving Ground, MD 21010.

The accuracy of semi-empirically predicted singlet-triplet energy gaps for substituted nitrenium ions is examined by comparison to correlated, ab initio calculations. Unrealistically low singlet energies are delivered by both the AM1 and MNDO method.



### AN UNUSUAL TWIST IN THE SYNTHESIS AND HYDROLYSIS OF THE 23,24-EPOXIDE OF 22,23-DIHYDROAVERMECTIN B<sub>1a</sub>

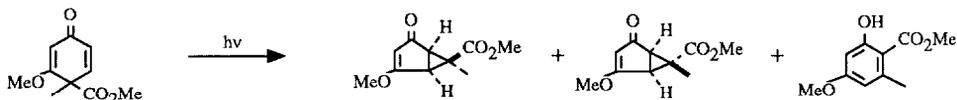
T. L. Shih\*, H. Mrozk, M. A. Holmes, B. H. Arlson, G. A. Doss, F. Waksunski, and M. H. Fisher  
Merck Sharp & Dohme Research Laboratories, Rahway NJ 07065.



### WAVELENGTH DEPENDENT PHOTOISOMERIZATION OF BICYCLO[3.1.0]HEXENONES

William G. Dauben\*, Jeffrey M. Cogen and Victor Behar, Dept. of Chemistry, University of California, Berkeley, CA 94720  
Arthur G. Schultz\*, William Geiss and Arthur G. Taveras, Dept. of Chemistry, Rensselaer Polytechnic Inst. Troy, NY 12180

Wavelength dependent product selectivity was observed upon irradiation of substituted 2,5-cyclohexadien-1-one.

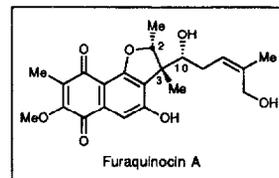


### FURAQUINOCINS A-G: RELATIVE AND ABSOLUTE STEREOCHEMISTRY

Peter G. Dormer, Amos B. Smith, III\*, Shinji Funayama† and Satoshi Omura‡

Department of Chemistry, the Monell Chemical Senses Center, and the Laboratory for research on the Structure of Matter, University of Pennsylvania, Philadelphia, Pennsylvania 19104, U. S. A. †The Kitasato Institute and School of Pharmaceutical Sciences, Kitasato University, Minato-ku, Tokyo 108, Japan.

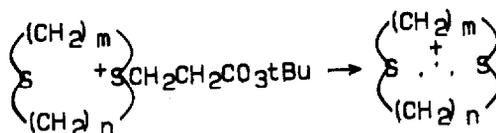
The complete relative and absolute stereochemistry of furaquinocins A-G, a family of cytotoxic antibiotics, have been assigned via a combination of X-ray crystallography, NMR analysis of the derived Mosher esters, and chemical correlation.



### FORMATION OF SULFUR-CENTERED CATION RADICALS BY PHOTOFRAGMENTATION

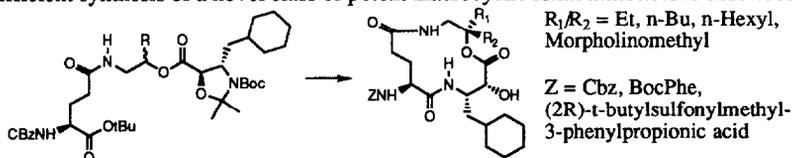
Richard S. Glass\* and Jeffrey L. Brocker, Department of Chemistry, The University of Arizona, Tucson, AZ 85721, U.S.A., Elke Anklam and Klaus-Dieter Asmus, Hahn-Meitner Institut Berlin, Bereich S, Abteilung Strahlenchemie, Postfach 39 01 28, 1000 Berlin 39, Germany

Laser flash photolysis of sulfonium peresters afforded two-sulfur, three-electron stabilized cation radicals.



### THE SYNTHESIS OF POTENT MACROCYCLIC RENIN INHIBITORS

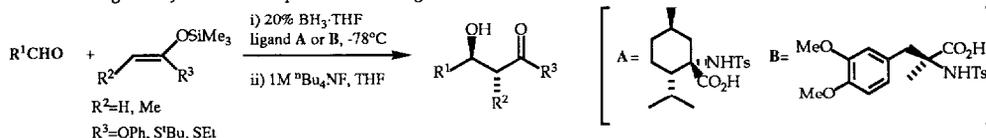
Daljit S. Dhanoa,\* William H. Parsons, William J. Greenlee, Arthur A. Patchett, *Merck Sharp and Dohme Research Laboratories, Department of Exploratory Chemistry, P. O. Box 2000, Rahway, New Jersey 07065 USA*  
Efficient synthesis of a novel class of potent macrocyclic renin inhibitors is described.



### The Catalytic Asymmetric Aldol Reaction of Aldehydes with Unsubstituted and Monosubstituted Silyl Ketene Acetals: Formation of *Anti*- $\beta$ -Hydroxy- $\alpha$ -Methyl Esters

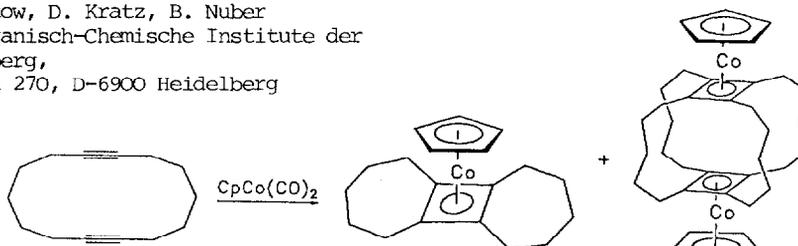
Emma R. Parmee, Yaping Hong, Orin Tempkin, and Satoru Masamune\*  
Department of Chemistry, Massachusetts Institute of Technology, Cambridge, MA 02139

The following catalytic reactions proceed with high enantioselection ( $R^2 = \text{H, Me}$ ) and diastereoselection ( $R^2 = \text{Me}$ ).



### A ONE STEP SYNTHESIS OF A PENTAMETHYLENE-BRIDGED SUPER-PHANE OF A CpCo-STABILIZED CYCLOBUTADIENE COMPLEX

R. Gleiter, B. Treptow, D. Kratz, B. Nuber  
Organisch-und Anorganisch-Chemische Institute der  
Universität Heidelberg,  
Im Neuenheimer Feld 270, D-6900 Heidelberg



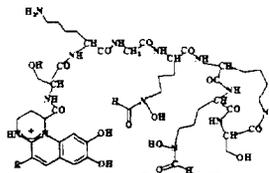
**BACTERIAL SIDEROPHORES: THE STRUCTURE OF THE PYOVERDINS OF *PSEUDOMONAS FLUORESCENS* ATCC 13525**

*Tetrahedron Lett.* **1992**, *33*, 1737

C.LINGET<sup>a</sup>, P.AZADI<sup>b</sup>, J.K.MACLEOD<sup>c</sup>, A.DELL<sup>b</sup> and M.A.ABDALLAH<sup>a\*</sup>

a) Laboratoire de Chimie Microbienne, ULP, 1 rue Blaise Pascal, F-67008-Strasbourg, (France). b) Dept of Biochemistry, I.C, London SW7 2AZ, U.K. c) Research School of Chemistry, A.N.U., Canberra, Australia

The structure of five pyoverdins excreted by *Pseudomonas fluorescens* ATCC 13525 were elucidated using FAB-MS and 2D NMR techniques: they are comprised of a common partly cyclic peptide containing a thirteen-membered ring, bound to a chromophore derived from 2,3-diamino-6,7-dihydroxyquinoline.

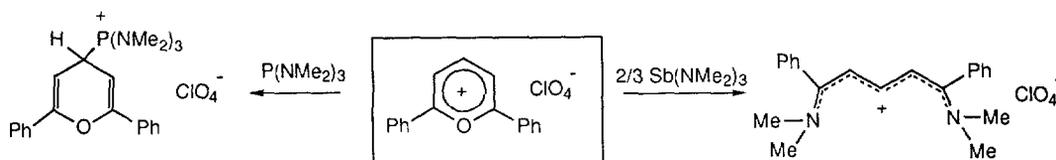


*Tetrahedron Lett.* **1992**, *33*, 1741

**Group 15 Elements in Organic Synthesis : Reactivity of tris(dimethylamino)phosphane and stibane on Pyrylium Salts**

Y. Madaule, M. Ramarohetra, J.G. Wolf \*

*Synthèse et Physicochimie Organique, Université Paul Sabatier, 31062 Toulouse Cedex (France)*

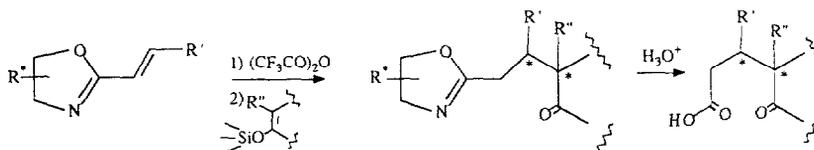


*Tetrahedron Lett.* **1992**, *33*, 1743

**ASYMMETRIC MICHAEL REACTIONS : ENANTIOSELECTIVE SYNTHESIS OF  $\delta$ -OXO ACIDS.**

François Michélon, Annie Pouilhès, Nguyen Van Bac, Nicole Langlois \*

Institut de Chimie des Substances Naturelles, C.N.R.S., F91198 Gif-sur-Yvette



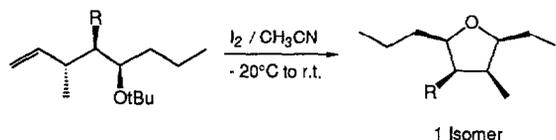
*Tetrahedron Lett.* **1992**, *33*, 1747

**Iodocyclization of Olefinic t-Butyl Ethers:**

**An easy Stereocontrolled Synthesis of Cis-Substituted Tetrahydrofurans.**

Ilane Marek\*, Jean-Michel Lefrançois, Jean-F. Normant\*

Laboratoire de Chimie des Organoéléments, CNRS UA 473, Université P. et M. Curie, 4 Place Jussieu, F-75252 Paris Cedex 05, France

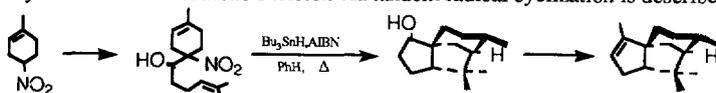


A FACILE SYNTHESIS OF A  $\Delta^2$ -CEDRENE SKELETON  
VIA TANDEM RADICAL CYCLIZATION

Yao-Jung Chen\* and Wen-Yuan Lin

Department of Chemistry, National Chung-Hsing University, Taichung, Taiwan 400, Republic of China

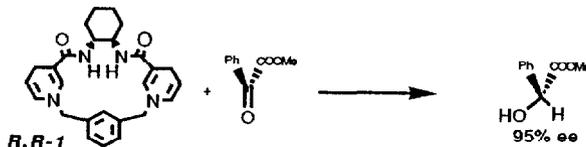
A facile synthesis of a  $\Delta^2$ -cedrene skeleton via tandem radical cyclization is described.



ANTARAFACIAL HYDRIDE TRANSFER IN A NEW CHIRAL NADH MODEL WITH  $C_2$ -SYMMETRY

KLAS SKOG AND OLOF WENNERSTRÖM, Dept of Org Chem, Chalmers University of Technology, S-412 96 Göteborg, Sweden

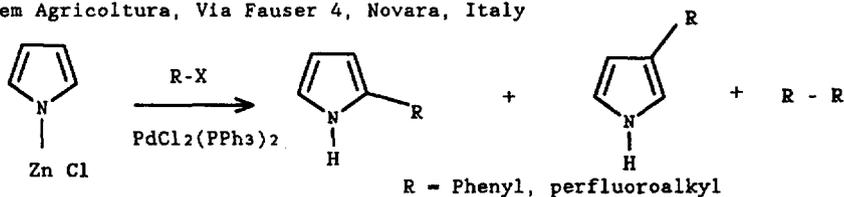
A  $C_2$ -symmetric macrocyclic NAD<sup>+</sup>/NADH-model, **1**, in which hydride transfer occurs in an antarafacial way, has been prepared. On reduction of methyl benzoylformate with **1**, methyl mandelate is formed in 95% ee.



PALLADIUM-CATALYZED CROSS-COUPLING OF PYRROLYL ANIONS WITH ORGANIC HALIDES

L. Filippini; M. Gusmeroli; R. Riva

Enichem Agricoltura, Via Fauser 4, Novara, Italy



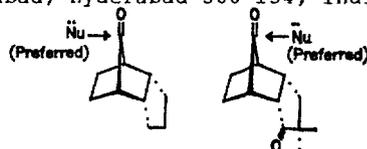
STEREOCHEMISTRY OF NUCLEOPHILIC ADDITIONS TO 2,3-endo,endo-BRIDGED-7-KETONORBORNANES [TRICYCLO-

(5.2.1.0<sup>2,6</sup>)DECAN-10-ONES]. OBSERVATION OF LONG-RANGE ELECTRONIC EFFECTS

Goverdhan Mehta\* and Marapaka Praveen,

School of Chemistry, University of Hyderabad, Hyderabad 500 134, India.

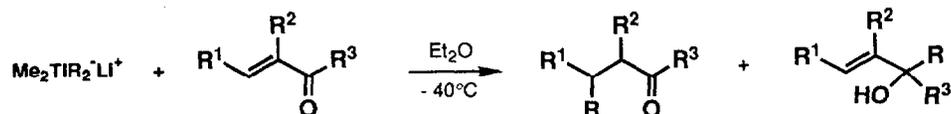
The diastereoselectivities in nucleophilic additions to 2,3-endo,endo-bridged-7-ketonorbornanes can be altered through substituent modification in the distal five-membered ring.



## On the Conjugate Addition of Tetraorganothallium Ate Complexes

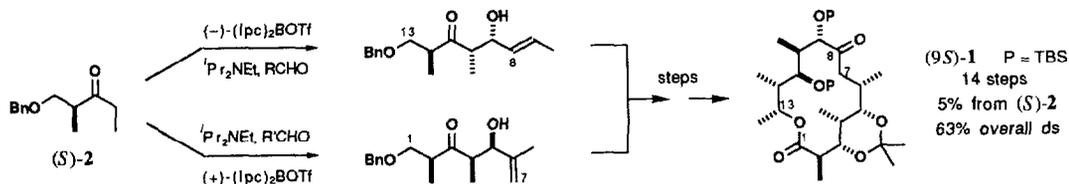
István E Markó\* and François Rebière

Department of Chemistry, The University, Sheffield S3 7HF, England



## STUDIES IN MACROLIDE SYNTHESIS: A STEREOCONTROLLED SYNTHESIS OF A (9S)-MACROLIDE INTERMEDIATE FOR OLEANDOMYCIN USING CHIRAL BORON REAGENTS

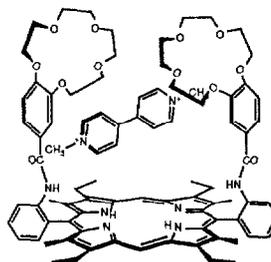
Ian Paterson,\* M. Anne Lister and Roger D. Norcross, University Chemical Laboratory, Lensfield Road, Cambridge CB2 1EW, UK



## PORPHYRIN-BASED MOLECULAR TWEEZERS AS A RECEPTOR FOR BIPYRIDINIUM GUESTS

Maxwell J. Gunter and Martin R. Johnston  
Department of Chemistry, The University of New England, Armidale, NSW 2351, Australia.

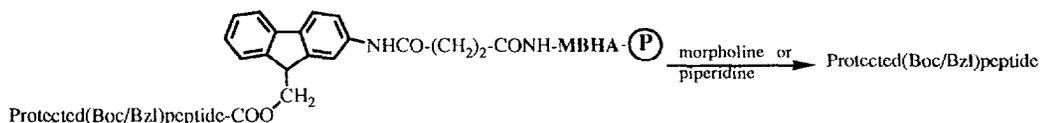
A porphyrin with two appended benzo-crown ethers is shown to bind bipyridinium guests in solution.



## A NEW FLUORENE-DERIVED ANCHOR FOR SOLID-PHASE SYNTHESIS OF PROTECTED PEPTIDES

Francesc Rabanal, Ernest Giralt, and Fernando Albericio

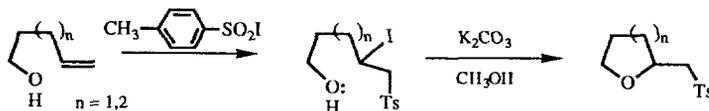
Departament de Química Orgànica, Facultat de Química, Universitat de Barcelona, E-08028 Barcelona, Spain



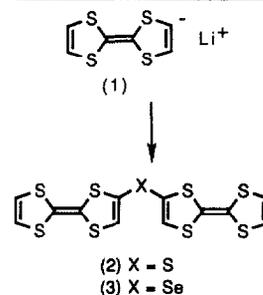
***para*-Toluenesulfonyl Iodide as a Convenient, Mild Reagent for the Preparation of Functionalised Cyclic Ethers**

Gavin L. Edwards\* and Katherine A. Walker

School of Chemistry, University of New South Wales, P.O. Box 1, Kensington, N.S.W., 2033, Australia.

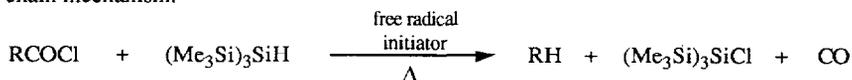
**Bis(tetrathiafulvalenyl)sulphide [(TTF)<sub>2</sub>S] : Synthesis and X-Ray Crystal Structure**Martin R. Bryce<sup>a</sup>, Graeme Cooke<sup>a</sup>, Ajaib S. Dhindsa<sup>a</sup>,  
David J. Ando<sup>b</sup> and Michael B. Hursthouse<sup>b</sup><sup>a</sup> Department of Chemistry, University of Durham, Durham, DH1 3LE, U.K.<sup>b</sup> Department of Chemistry, Queen Mary and Westfield College, Mile End Road, London, E1 4NS, U.K.

**Abstract.** Bis(tetrathiafulvalenyl)sulphide [(TTF)<sub>2</sub>S] has been synthesised by reaction of mono-lithiated TTF with di(phenylsulphonyl)sulphide, and characterised by cyclic voltammetry and single crystal X-ray analysis, which reveals a remarkably close two-dimensional chalcogen network in the solid state. The synthesis of (TTF)<sub>2</sub>Se, using the selenating reagent di(phenylsulphonyl)selenide, is also reported.

**THE REACTION OF TRIS(TRIMETHYLSILYL)SILANE WITH ACID CHLORIDES**M. Ballestri and C. Chatgililoglu\*, I.Co.C.E.A., Consiglio Nazionale delle Ricerche,  
Via della Chimica 8, 40064 Ozzano Emilia, Italy.

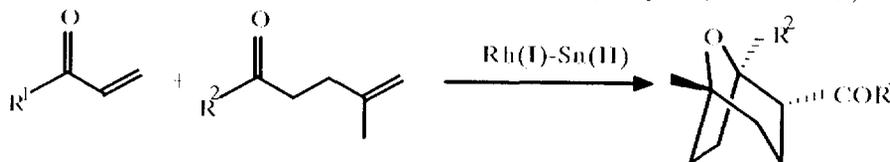
N. Cardi and A. Sommazzi, Istituto Guido Donegani, Via G. Fauser 4, 28100 Novara, Italy.

Tris(trimethylsilyl)silane reduces acid chlorides to the corresponding decarboxylated hydrocarbons via a free radical chain mechanism.

**CATALYTIC CODIMERIZATION OF  $\alpha,\beta$ - AND  $\gamma,\delta$ -UNSATURATED KETONES: NOVEL STEREOSELECTIVE METHOD OF THE SYNTHESIS OF FUNCTIONALIZED 8-OXABICYCLO[3.2.1]OCTANES.**

I.P. Kovalev\*, V.V. Ipatkin, Yu.A. Strelenko, A.V. Ignatenko, G.I. Nikishin

Institute of Organic Chemistry, USSR Academy of Sciences, Leninsky Prospect 47, Moscow 117913, USSR



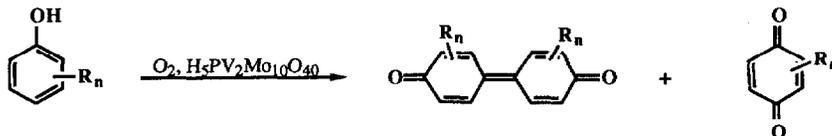
**Oxidation of Activated Phenols by Dioxygen Catalysed by the  $H_5PV_2Mo_{10}O_{40}$  Heteropolyanion**

Manfred Lissel\* and Helmut Jansen in de Wal

Fakultät für Chemie, Universität Bielefeld, 4800 Bielefeld 1, FRG

Ronny Neumann\*

Casali Institute of Applied Chemistry, The Hebrew University of Jerusalem, Jerusalem, Israel 91904

**Regiocontrol in the Intramolecular Silyl Modified Sakurai (ISMS) Reaction. An Efficient Synthesis of a *Dacus oleae* Fruit Fly****Pheromone.**

István E Markó\* and Abdelaziz Mekhalifa

Department of Chemistry, The University, Sheffield S3 7HF, England.

