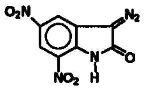
GRAPHICAL ABSTRACTS

Tetrahedron, **1994**, *50*, 6723

BICYCLIC TRIAZOLES FROM A DIAZO TRANSFER REACTION BETWEEN CYCLIC ENAMINONES AND 5,7-DINITRO-3-DIAZO-1,3-DIHYDRO-2H-INDOL-2-ONE

Rodinei Augusti and Concetta Kascheres*
Universidade Estadual de Campinas, Instituto de Química, Caixa Postal 6154, 13081 Campinas, São Paulo, Brazil.

The synthetic usefulness of a new method of 1,2,3-triazole synthesis has been demonstrated. By employing cyclic enamino esters 3 and enamino ketones 4 in reactions with 5,7-dinitro-3-diazo-1,3-dihydro-2H-indol-2-one (1), bicyclic triazoles 5 and 6 have been prepared in good to excellent yields.



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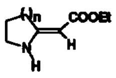

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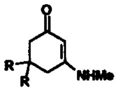

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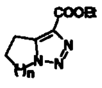

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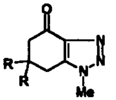

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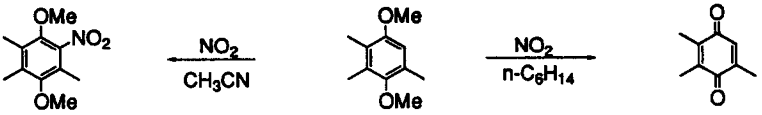
Tetrahedron, **1994**, *50*, 6727

SELECTIVE NITRATION *VERSUS* OXIDATIVE DEALKYLATION OF HYDROQUINONE ETHERS WITH NITROGEN DIOXIDE

R. Rathore, E. Bosch and J.K. Kochi
Chemistry Department, University of Houston, Houston, TX 77204-5641

Various alkyl-substituted *p*-dialkoxybenzenes react readily with NO_2 via either nitration or oxidative dealkylation. This competition is effectively modulated by solvent polarity and added nitrate.

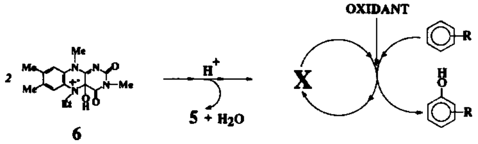


Tetrahedron, **1994**, *50*, 6759

A NOVEL HYDROXYLATION OF AROMATICS IN A FLAVIN-INITIATED CHAIN REACTION

Humphrey I. X. Mager[a] and Shiao-Chun Tu[ab]*
Contribution from the [a]Department of Biochemical and Biophysical Sciences
and the [b]Department of Chemistry, University of Houston, Houston, Texas 77204-5934, U.S.A.

Aromatic hydroxylation in a chain reaction, initiated by the dihydroflavin pseudobase radical **6**, proved to be signicantly influenced by the nature of an oxidant as is illustrated by a comparison of the results obtained with O_2 and/or H_2O_2. The hydroxylating ability of this flavin / H_2O_2 system surpasses that of any other known, flavin - free chemical system.

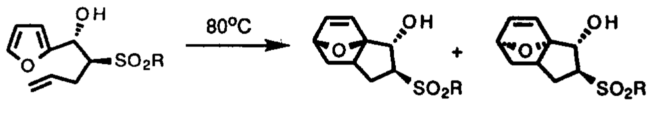


Tetrahedron, **1994**, *50*, 6767

SYNTHETIC AND KINETIC STUDIES OF SUBSTITUENT EFFECTS IN THE FURAN INTRAMOLECULAR DIELS-ALDER REACTION

Brian J. McNelis, Daniel D. Sternbach* and Andrew T. MacPhail
P.M. Gross Laboratories, Duke University, Durham, North Carolina

The Intramolecular Diels-Alder reactions (IMDA) of a series of 2-sulfone substituted 1-furyl-4-penten-1-ols (R = Me, Ph, tBu) have been studied and the kinetics have been examined to quantify substituent group effects. Activated dienophiles in these systems have been shown to be very reactive, cyclizing at room temperature.



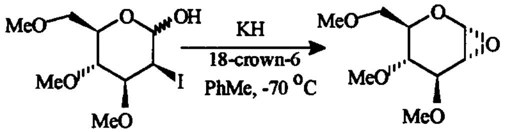
R = Me, Ph, tBu

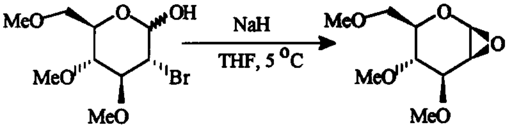
Tetrahedron, **1994**, *50*, 6783

The Chemistry of Glucal Halohydrins: The Effect of the Halide on Epoxide Formation.

Cecilia H. Marzabadi, Christopher D. Spilling,* and Lisa M. Tyler.
Department of Chemistry, University of Missouri-St. Louis, 8001 Natural Bridge Road, St. Louis, MO 63121.

Glucal epoxides are formed stereoselectively by the base induced cyclization of halohydrins.





Tetrahedron, **1994**, *50*, 6797

PSEUDOSTELLARINS A - C, NEW TYROSINASE INHIBITORY CYCLIC PEPTIDES FROM *PSEUDOSTELLARIA HETEROPHYLLA*

Hiroshi Morita, Takashi Kayashita, Hideyuki Kobata, Akira Gonda, Koichi Takeya and Hideji Itokawa*

Department of Pharmacognosy, Tokyo College of Pharmacy, Horinouchi 1432-1, Hachioji, Tokyo 192-03, Japan,

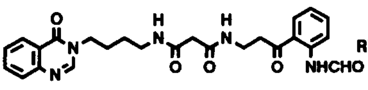
Pseudostellarins
A: Cyclo[Gly-Pro-Tyr-Leu-Ala]
B: Cyclo[Gly-Ile-Gly-Gly-Gly-Pro-Pro-Phe]
C: Cyclo[Gly-Thr-Leu-Pro-Ser-Pro-Phe-Leu]

Tetrahedron, **1994**, *50*, 6805

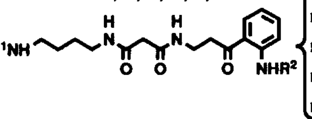
STRUCTURES OF MONODONTAMIDES A, B, C, D, E, AND F, SIX NEW ALKALOIDS ISOLATED FROM THE MARINE GASTROPOD MOLLUSC *MONODONTA LABIO* (LINNÉ)

Haruki Niwa,* Masaru Watanabe, Atsushi Sano, and Kiyoyuki Yamada*
Department of Chemistry, Faculty of Science, Nagoya University, Chikusa, Nagoya 464, Japan

Isolation and structure determination of monodontamides A, B, C, D, E, and F.



monodontamide F



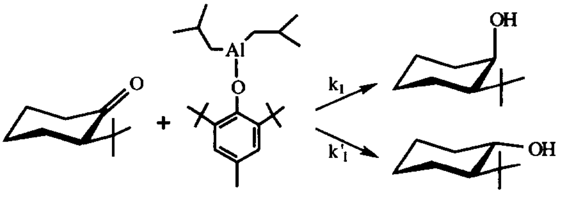
monodontamide A (R^1 = phenylacetyl, R^2 = CHO)
monodontamide B (R^1 = homovanilloyl, R^2 = CHO)
monodontamide C (R^1 = homovanilloyl, R^2 = H)
monodontamide D (R^1 = 3-indolylacetyl, R^2 = CHO)
monodontamide E (R^1 = 3-indolylacetyl, R^2 = H)

Tetrahedron, **1994**, *50*, 6819

THE TEMPERATURE DEPENDENCE OF THE DIASTEREOSELECTIVE REDUCTION OF 2-*t*-BUTYLCYCLOHEXANONE WITH DIISOBUTYL-ALUMINIUM-2,6-DI-*t*-BUTYL-4-METHYLPHENOXIDE

Joachim Brunne, Norbert Hoffmann, and Hans-Dieter Scharf*
Institut für Organische Chemie der RWTH Aachen
Prof.-Pirlet-Str. 1, D-52056 Aachen

The diastereoselectivity in the reduction of 2-*t*-butylcyclohexanone with diisobutylaluminium-2,6-di-*t*-butyl-4-methylphenoxide is investigated as a function of the temperature and the conversion.



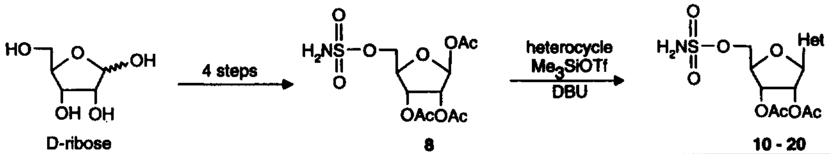
Tetrahedron, **1994**, *50*, 6825

A NOVEL SYNTHESIS OF SULFAMOYL NUCLEOSIDES

Haukur Kristinsson, Kurt Nebel, Anthony C. O'Sullivan*, Fritz Struber, Tammo Winkler, and Yasuchika Yamaguchi

Plant Protection Division, Ciba-Geigy AG, 4002 Basel, Switzerland.

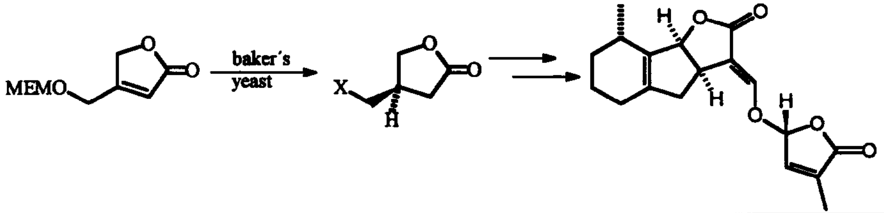
The sulfamoylated ribose derivative 8 was prepared on a kilogram scale, and used to synthesise a series of 5-O-sulfamoyl nucleosides. A modification of the Vorbrüggen-Hilbert-Johnson reaction conditions for nucleoside formation was used



Tetrahedron, **1994**, *50*, 6839

Asymmetric Synthesis of a Key Synthetic Precursor for (+)-Strigol and Sorgolactone

J. SCHRÖER and P. WELZEL*
Fakultät für Chemie der Ruhr-Universität, D-44780 Bochum (Germany)

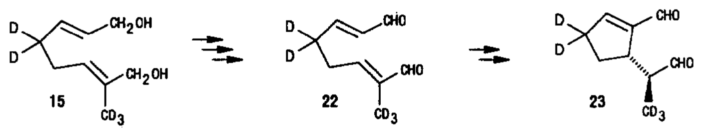


Tetrahedron, **1994**, *50*, 6859

BIOSYNTHESIS OF IRIDOID MONOTERPENES IN INSECTS: DEFENSIVE SECRETIONS FROM LARVAE OF LEAF BEETLES (COLEOPTERA: CHRYSOMELIDAE)

Martin Veith, Michael Lorenz, Wilhelm Boland*, Institut für Organische Chemie und Biochemie, Gerhard-Domagk-Str. 1, D-53121 Bonn, Germany.
Helmut Simon, Institut für Organische Chemie und Biochemie, Lichtenbergstr. 4, D-85747 Garching, Germany.
Konrad Dettner, Tierökologie II, Postf. 101251, D-95440 Bayreuth (Germany)

Deuterium labelled 3-nor precursors like 15 can be used to follow the biosynthesis of iridoid dialdehydes in insects.

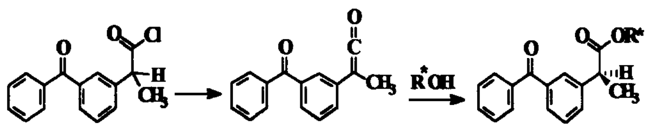


Tetrahedron, **1994**, *50*, 6875

Asymmetric synthesis of ketoprofen : a surprising base catalyst effect during asymmetric addition of pantolactone to methyl (3-benzoylphenyl) ketene

M.Calmes, J.Daunis, R.Jacquier, F.Natt

Diastereoisomeric ratio (up to 99.5/.5) depends upon the nature of the catalyst tertiary amine and can even be inverted

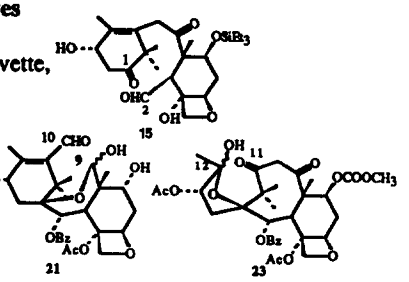


Tetrahedron, **1994**, *50*, 6881

Cleavage Reactions of 10-Deacetylbaccatin III. Retrosynthetic Approach to the Total Synthesis of Taxol Derivatives

Sandrine Py, Jing-Wen Pan and Françoise Khuong-Huu*.
CNRS, Institut de Chimie des Substances Naturelles, 91198 Gif-sur-Yvette, France.

Abstract: With the aim to study disconnection/connection reactions of the taxane skeleton, the synthesis of products resulting from the cleavage of the C(1)-C(2), C(9)-C(10) and C(11)-C(12) bonds of 10-deacetylbaccatin III, a taxol precursor, is described. **15**, **21** and **23** represent models to study ring closure reactions starting from highly functionalized taxane derivatives.



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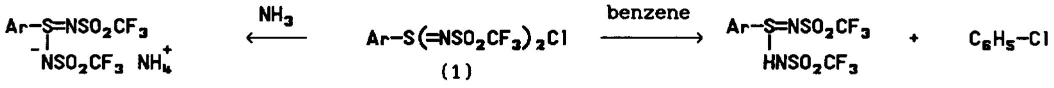
23

Tetrahedron, **1994**, *50*, 6891

The Unusual Reactivity of the Mono- and Bis-N-(Trifluoromethylsulfonyl)-substituted Azaanalogs of Arenesulfonochlorides

Romute Yu. Garlyauskajte, Sergej V. Sereda and Lev M. Yagupolskii*
Institute of Organic Chemistry, Ukrainian Academy of Sciences, Ukraine



$$\underset{{}^{-}NSO_2CF_3\ NH_4^+}{Ar{-}S{=}NSO_2CF_3} \xleftarrow{NH_3} \underset{(1)}{Ar{-}S(=NSO_2CF_3)_2Cl} \xrightarrow{\text{benzene}} \underset{HNSO_2CF_3}{Ar{-}S{=}NSO_2CF_3} + C_6H_5{-}Cl$$

Chlorides (1) are reduced under the action of C-, N-nucleophiles. The σ-constants of the group $-S(=NSO_2CF_3)_2F$ (σ_p=1.76) are the highest known.

Tetrahedron, **1994**, *50*, 6907

PREDICTIONS OF WHICH DIASTEREOISOMERIC SALT WILL PRECIPITATE DURING AN OPTICAL RESOLUTION VIA DIASTEREOISOMERIC SALT FORMATION

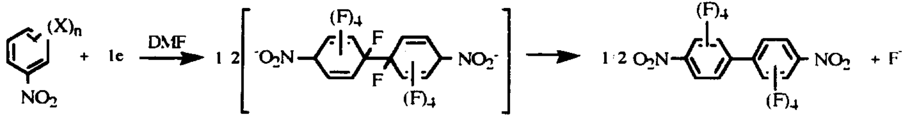
Dávid Kozma*[a], Mária Ács[b], Elemér Fogassy[a]
a) Department of Organic Chemical Technology and b)Institute of General and Analytical Chemistry, Technical University of Budapest, Budapest POB 91, H-1521, Hungary

The DSC data of sixteen conglomerate forming diastereoisomeric salt pairs were analysed. It was demonstrated that during optical resolution via fractional crystallization of diastereoisomeric salt pairs always that diastereoisomeric salt precipitates which has the higher melting point. When one of the salts is amorphous that remains in the mother liquor. If one of the diastereoisomeric salt crystallizes with solvate that will precipitate during optical resolutions.

Tetrahedron, **1994**, *50*, 6913

MECHANISTIC STUDIES ON THE ELECTROCHEMICAL REDUCTIVE COUPLING OF SOME POLYHALOGENONITROBENZENES.A NEW EXAMPLE OF A RADICAL ANION DIMERIZATION.

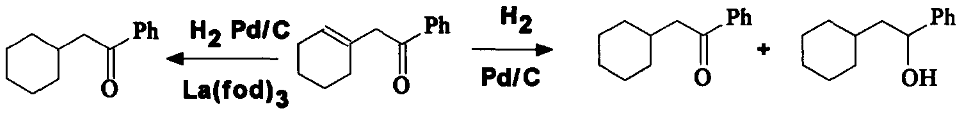
Claude P. Andrieux[a],* Anna Batlle, Martirio Espín, Iluminada Gallardo,* Ziqi Jiang and Jorge Marquet*
Departament de Química. Universitat Autònoma de Barcelona. 08193 Bellaterra. Barcelona. Spain.
[a] Laboratoire d'Electrochimie Moleculaire. Université Paris 7. 2 place Jussieu. 75251 Paris Cedex 05. France



Tetrahedron, **1994**, *50*, 6921

SELECTIVE CATALYTIC HYDROGENATION IN THE PRESENCE OF LANTHANIDE *tris*-β-DIKETONATES AS "PROTECTING" REAGENTS

I.V.Komarov, V.E.Denisenko, M.Yu.Kornilov; Kiev T.Shevchenko University, (Ukraine)

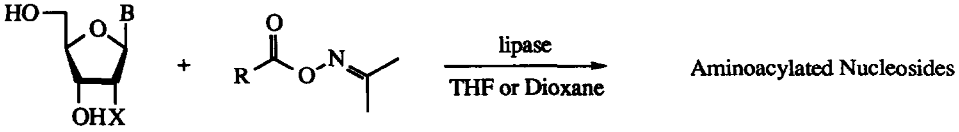


Tetrahedron, **1994**, *50*, 6927

SELECTIVE AMINOACYLATION OF NUCLEOSIDES THROUGH AN ENZYMATIC REACTION WITH OXIME AMINOACYL ESTERS

Francisco Morís and Vicente Gotor*
Departamento de Química Orgánica e Inorgánica, Facultad de Química, Universidad de Oviedo, 33071 Oviedo, Spain

Abstract: Both 2'-deoxy and ribonucleosides have been subjected to the action of lipases with *N*-protected aminoacyl oxime esters to obtain regioselectively aminoacylated derivatives:

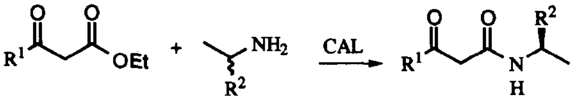


Tetrahedron, **1994**, *50*, 6935

Lipase-Catalyzed Aminolysis and Ammonolysis of β-Ketoesters. Synthesis of Optically Active β-Ketoamides.

María Jesús García, Francisca Rebolledo and Vicente Gotor*
Departamento de Química Orgánica e Inorgánica, Facultad de Química, Universidad de Oviedo, 33071 Oviedo, Spain.

Abstract: *Candida antarctica* lipase catalyzed aminolysis and ammonolysis reactions of β-ketoesters. When racemic amines are used in these processes, β-ketoamides are obtained with high enantiomeric excesses.



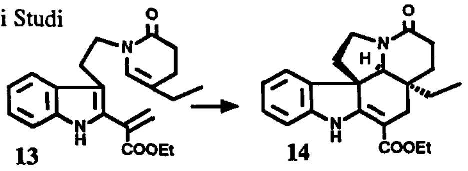
Tetrahedron, **1994**, *50*, 6941

ASPIDOSPERMA ALKALOIDS *VIA* CYCLIZATION OF SECODINE INTERMEDIATE: SYNTHESIS OF (±)-3-OXO-VINCADIFFORMINE ETHYL ESTER.

Bruno Danieli*, Giordano Lesma, Giovanni Palmisano, Daniele Passarella* and Alessandra Silvani.

Dipartimento di Chimica Organica e Industriale, Universita' degli Studi
di Milano, Via Venezian, 21, 20133 Milano, Italy - Centro CNR
di Studio per le Sostanze Organiche Naturali.

(±)-3-Oxovincadifformine ethyl ester **14** has been synthesized through an intramolecular [4π + 2π] cycloaddition of the 3-oxosecodine **13**.

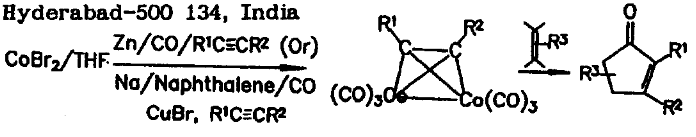


13 **14**

Tetrahedron, **1994**, *50*, 6955

SIMPLE CONVENIENT METHODS FOR THE PREPARATION OF ALKYNE-$Co_2(CO)_6$ COMPLEXES FROM $CoBr_2$ FOR APPLICATION IN PAUSON-KHAND CYCLOPENTENONE SYNTHESIS

Mariappan Periasamy*, Malladi Rama Reddy and Arokiasamy Devasagayaraj
School of Chemistry, University of Hyderabad, Central University P.O, Hyderabad-500 134, India

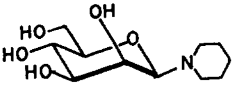


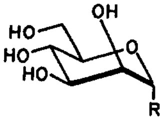
Tetrahedron, **1994**, *50*, 6965

DESIGN AND SYNTHESIS OF MANNOSE ANALOGUES AS INHIBITORS OF α-MANNOSIDASE

Sanat K. Maity, Samir K. Dutta, Asish K. Banerjee, Basudeb Achari* and Manoranjan Singh,
Indian Institute of Chemical Biology, Calcutta 700032, India

A series of N-, C- and S-mannopyranosyl derivatives have been synthesised and their inhibitory activity tested towards jack-bean α-mannosidase (EC 3.2.1.24)





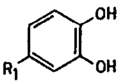
R = CN
R = CH_2CH_2CN
R = NH_2
R = CH_2NH_2

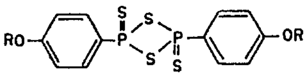
R = $CH_2CH_2CH_2NH_2$
R = SPh
R = SCH_2CO_2H
R = $CH_2CH_2CO_2H$

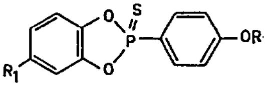
Tetrahedron, **1994**, *50*, 6975

Organophosphorus Compounds XV. The Reaction of 2,4-Bis(4-methoxyphenyl)-1,3,2,4-dithiadiphosphetane-2,4-disulfide (Lawesson's Reagent) with Aromatic Dihydroxy Compounds. Simple New Route to 1,3,2-Dioxaphospholane-2-Sulfide

Rashad Shabana,* Fayez H. Osman and Sahar S. Atrees
National Research Centre, Dokki, Cairo 12622, Egypt.



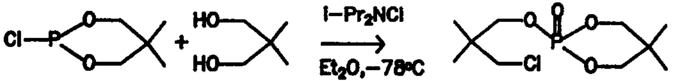




Tetrahedron, **1994**, *50*, 6989

OXIDATIVE ADDITION REACTIONS OF CYCLIC CHLOROPHOSPHITES AND ARSENITES WITH DIOLS AND 1,2-QUINONES: X-RAY STRUCTURE OF THE PHOSPHOCIN $(ClCH_2CMe_2CH_2O)P(O)\{(O\text{-}2,4\text{-}(\underline{t}\text{-bu})_2C_6H_2)_2CH_2\}$

Musa A. Said[a], K.C. Kumara Swamy*[a], K. Chandra Mohan[b] and N. Venkata Lakshmi[b]
[a]University of Hyderabad (India), [b]Indian Institute of Chemical Technology (India)



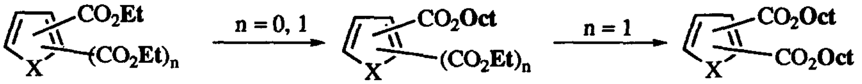
1

Similar products are synthesized <u>via</u> reaction of 1 with quinones. Eg: $(ClCH_2CMe_2CH_2O)P(O)(O_2C_2Ph_2)$.

Tetrahedron, **1994**, *50*, 6999

MUCOR MIEHEI LIPASE CATALYZED TRANSESTERIFICATIONS ON AROMATIC AND HETEROAROMATIC SUBSTRATES. A GENERAL SURVEY.

M.G. Martín-Muñoz, M. Fierros, M.I. Rodríguez-Franco, and S. Conde*
Instituto de Química Médica (CSIC). 28006-Madrid. Spain.



X: CH=CH, CH=N, O, S.

An investigation on MML-catalyzed transesterifications of 16 aromatic and heteroaromatic mono- and diesters in organic solvents has been carried out.

Tetrahedron, **1994**, *50*, 7009

The Synthesis of D,L *p*-Vinylphenylglycine by Amidoalkylation, and its Reactions.

Shani Sheffer-Dee-Noor and Dov Ben-Ishai
Department of Chemistry, Technion - Israel Institute of Technology, Haifa 32000, Israel

Amidoalkylation of (2-haloethyl)benzene (**1a-b**) with α-hydroxyhippuric acid and *N*-methoxycarbonyl α-hydroxyglycine (**2a-b**), followed by dehydrohalogenation, affords *N*-protected *p*-vinylphenylglycines (**5a-b**). Transformation of the vinyl group followed by deprotection affords several *p*-substituted phenylglycines.