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Tetrahedron Letters

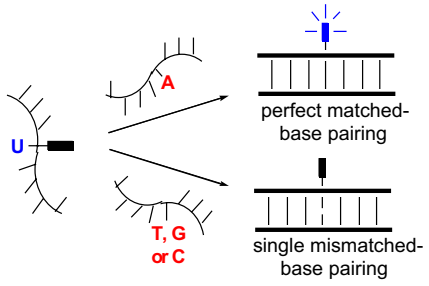
Tetrahedron Letters Vol. 45, No. 18, 2004

Contents

COMMUNICATIONS

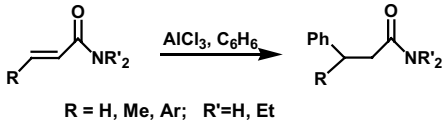
Fluorescent oligonucleotide incorporating 5-(1-ethynylpyrenyl)-2′-deoxyuridine: sequence-specific fluorescence changes upon duplex formation **pp 3543–3546**

Gil Tae Hwang, Young Jun Seo, Su Jeong Kim and Byeang Hyean Kim*



Friedel–Crafts alkylation of benzene with α,β-unsaturated amides **pp 3547–3549**

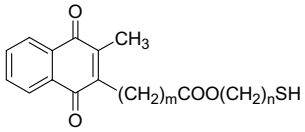
Konstantin Yu. Koltunov,* Stéphane Walspurger and Jean Sommer



A variety of α,β-unsaturated amides readily condense with benzene in the presence of an excess of aluminum chloride to give respective 3-phenylpropionamides in excellent yields.

Synthesis and self-assembling properties on gold of 2-methyl-1,4-naphthoquinone derivatives containing ω-mercaptoalkylalkanoate groups **pp 3551–3555**

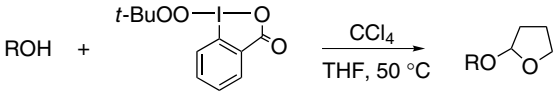
Marytė Kažemėkaitė, Arūnas Bulovas, Zita Talaikytė, Eugenijus Butkus, Vilma Railaitė, Gediminas Niaura, Algirdas Palaima and Valdemaras Razumas*



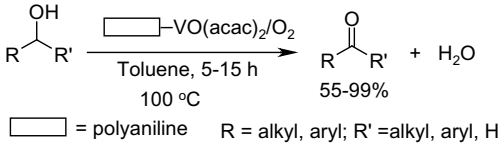
a m=1, n=2; **f** m=6, n=2;
b m=2, n=2; **g** m=2, n=6;
c m=3, n=2; **h** m=6, n=3;
d m=4, n=2; **i** m=4, n=6;
e m=4, n=3;

The synthesis of 2-methyl-1,4-naphthoquinone derivatives containing surface active ω-mercaptoalkylalkanoate groups with 5–12 atoms in the side-chains is reported. The basic redox properties and some molecular features of the self-assembled monolayers formed by these compounds on gold were studied.

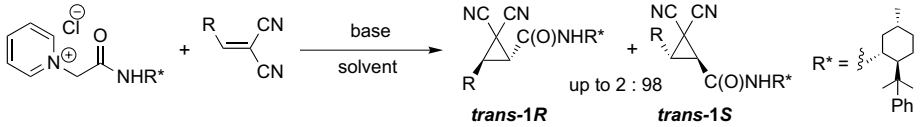
Tetrahydrofuranylation of alcohols catalyzed by alkylperoxy-λ³-iodane and carbon tetrachloride **pp 3557–3559**
Masahito Ochiai* and Takuya Sueda



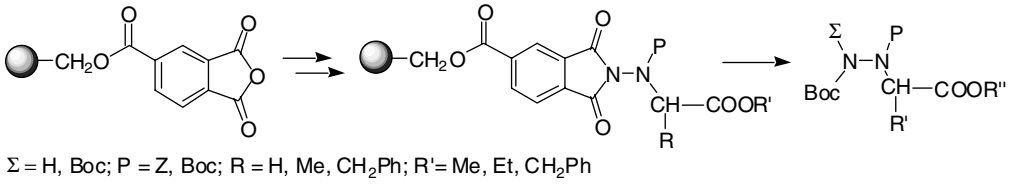
Polyaniline supported vanadium catalyzed aerobic oxidation of alcohols to aldehydes and ketones **pp 3561–3564**
Sabbasani Rajasekhara Reddy, Subhabrata Das and T. Punniyamurthy*



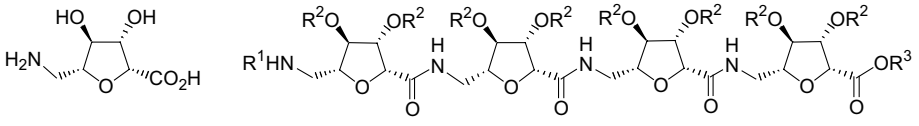
Stereoselective synthesis of activated cyclopropanes with an α-pyridinium acetamide bearing an 8-phenylmenthyl group as the chiral auxiliary **pp 3565–3568**
Satoshi Kojima,* Kyoko Hiroike and Katsuo Ohkata



Liquid and solid phase syntheses of orthogonally protected α-hydrazinoacid derivatives **pp 3569–3572**
Isabelle Bouillon, Nicolas Brosse,* Régis Vanderesse and Brigitte Jamart-Grégoire



Conformational studies of the linear homooligomers of a glucose-derived furanoid sugar amino acid **pp 3573–3577**
Tushar K. Chakraborty,* P. Srinivasu, S. Sakunthala Madhavendra, S. Kiran Kumar and Ajit C. Kunwar



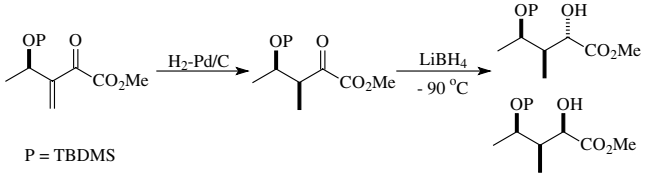
1

(**Gaa**)

2

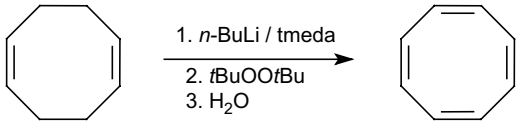
a: R^1 = Boc, R^2 = Bn, R^3 = Me; **b**: R^1, R^3 = H, R^2 = Bn;
c: R^1 = Boc, R^2 = H, R^3 = Me

Diastereo- and enantioselective synthesis of a conagenin skeletal amide moiety **pp 3579–3582**
J. Augusto R. Rodrigues,* Paulo J. S. Moran, Cíntia D. F. Milagre and Cleber V. Ursini

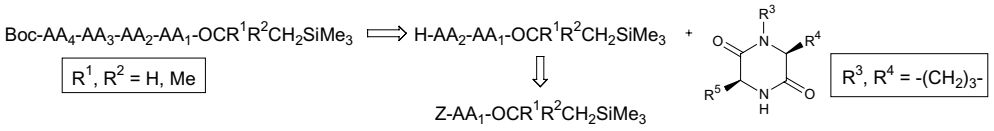


P = TBDMS

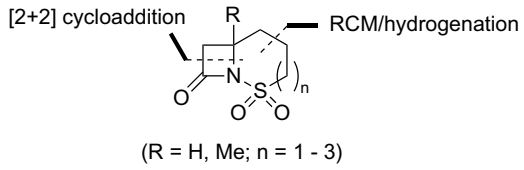
Cyclooctatetraene made easy **pp 3583–3584**
Jochen Gottfriedsen, Alesia Miloslavina and Frank T. Edelmann*



Application of substituted 2-(trimethylsilyl)ethyl esters to suppress diketopiperazine formation **pp 3585–3588**
Katarzyna Borsuk, Floris L. van Delft, Ivo F. Eggen,* Paul B. W. ten Kortenaar, Annet Petersen and Floris P. J. T. Rutjes*

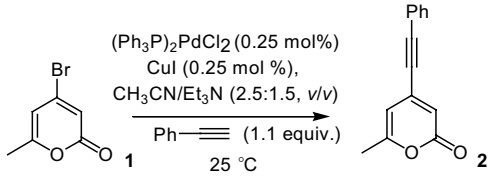


A concise synthesis of β-lactam–sulfonamide hybrids **pp 3589–3592**
Dirk Freitag, Pia Schwab and Peter Metz*



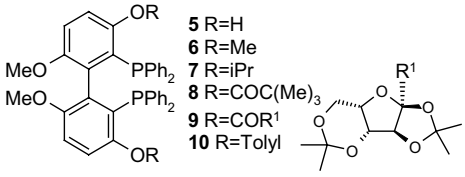
Using ring closing metathesis (RCM) as the key operation, a rapid access to β-lactams fused to a sultam moiety of variable ring size was developed. An efficient RCM of 4-vinyl-azetidin-2-ones to give 1-aza-bicyclo[4.2.0]oct-4-en-8-ones is also reported.

Important consequences for gas chromatographic analysis of the Sonogashira cross-coupling reaction **pp 3593–3595**
Elina H. Niemelä, Adam F. Lee and Ian J. S. Fairlamb*



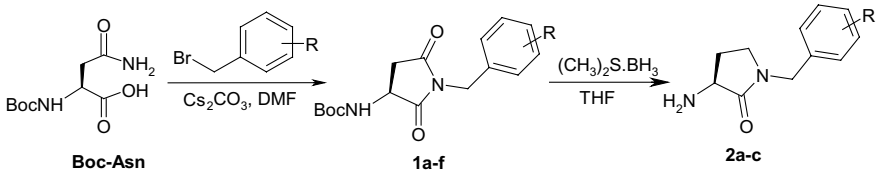
GC analysis of the Sonogashira reaction of **1** with phenylacetylene shows a time dependence of post-quenched samples (through a conventional silica plug), where residual Pd complexes are able to catalyse the reaction further.

Synthesis, resolution and applications of 3,3′-bis(RO)-MeO-BIPHEP derivatives **pp 3597–3601**
Evgueni Gorobets, Guang-Ri Sun, Bronwen M. M. Wheatley, Masood Parvez and Brian A. Keay*

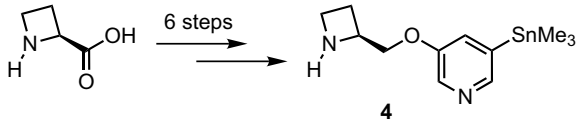


We report the synthesis, resolution and asymmetric applications of a series of new 3,3′-bis(substituted)-MeO-BIPHEP derivatives **5**–**10**.

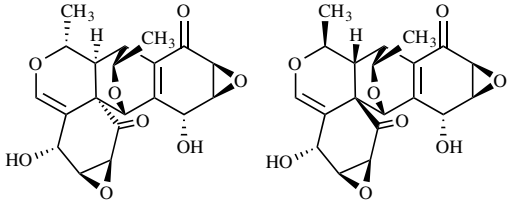
Efficient synthesis of *N*-benzyl-3-aminopyrrolidine-2,5-dione and *N*-benzyl-3-aminopyrrolidin-2-one **pp 3603–3605**
Yen Vo-Hoang, Cécile Gasse, Michel Vidal, Christiane Garbay and Hervé Galons*



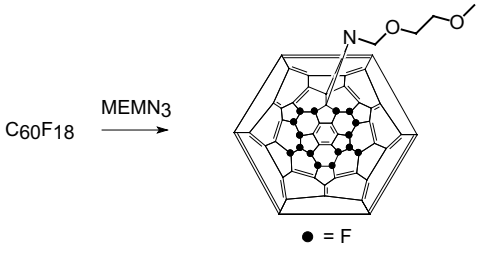
Synthesis of a new precursor to the nicotinic receptor tracer 5-IA-85380 precursor using trimethylsilyl iodide as deblocking agent **pp 3607–3610**
Eric Brenner, Ronald M. Baldwin and Gilles Tamagnan*



Enantioselective total synthesis of (−)-epoxyquinols A and B. Novel, convenient access to chiral epoxyquinone building blocks through enzymatic desymmetrization **pp 3611–3615**
Goverdhan Mehta* and Kabirul Islam

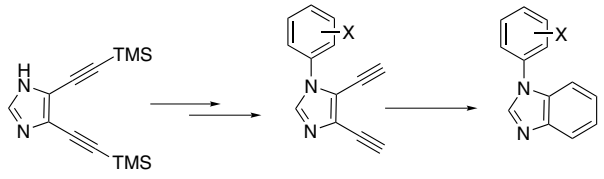


Novel formation of a fluorinated aziridino[60]fullerene **pp 3617–3619**
Glenn A. Burley, Adam D. Darwish, Joan M. Street and Roger Taylor*



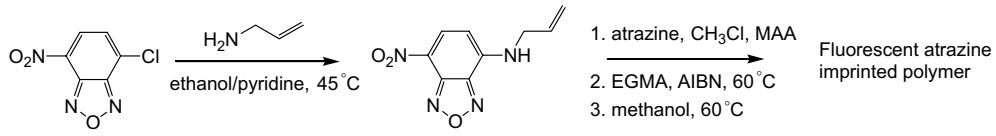
Reaction of MEMazide with $C_{60}F_{18}$ results in replacement of two fluorines to give a fluorinated aziridinofullerene.

Bergman cycloaromatization of imidazole-fused enediynes: the remarkable effect of *N*-aryl substitution **pp 3621–3624**
Zhengrong Zhao, Yunshan Peng, N. Kent Dalley, John F. Cannon and Matt A. Peterson*

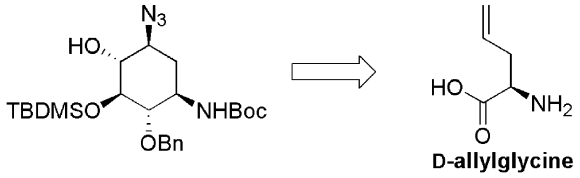


N-Arylation enhanced rates relative to *N*-alkyl derivatives by up to sevenfold (ANOVA $p < 0.0001$).

4-(3-Aminopropylene)-7-nitrobenzofurazan: a new polymerisable monomer for use in homogeneous molecularly imprinted sorbent fluoroassays **pp 3625–3627**
Nathalie Lavignac, Christopher J. Allender* and Keith R. Brain

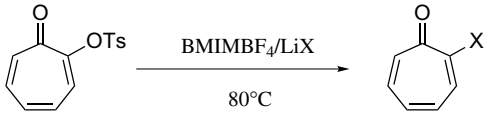


Synthesis of a protected enantiomerically pure 2-deoxystreptamine derivative from D-allylglycine **pp 3629–3632**
Guuske F. Busscher, Floris P. J. T. Rutjes and Floris L. van Delft*



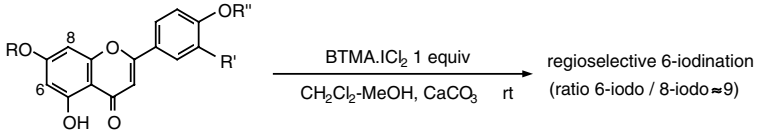
A diastereoselective synthetic route to enantiopure (protected) 2-deoxystreptamine, starting from D-allylglycine, is presented.

Electrophilic catalysis in nucleophilic substitution reactions in ionic liquids **pp 3633–3634**
Marino Cavazza* and Francesco Pietra



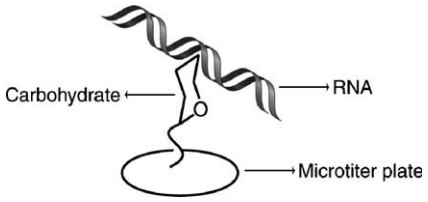
Li^+ acting as a Lewis acid, X = Cl, Br, I

Regioselective 6-iodination of 5,7-dioxygenated flavones by benzyltrimethylammonium dichloroiodate **pp 3635–3638**
Jérôme Quintin and Guy Lewin*

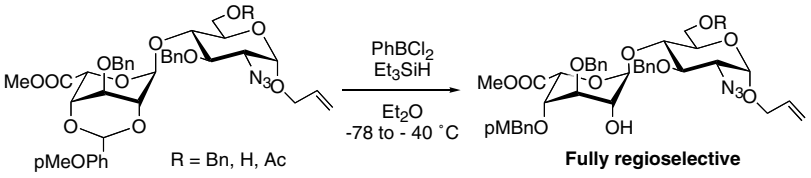


R = alkyl, peracylglycosyl; R' = H, OH, alkoxy; R'' = Me, acetyl

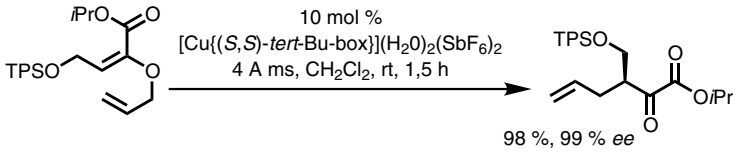
Aminoglycoside array for the high-throughput analysis of small molecule–RNA interactions **pp 3639–3642**
Marian C. Bryan and Chi-Huey Wong*



$PhBCl_2$ promoted reductive opening of 2′,4′-*O*-*p*-methoxybenzylidene: new regioselective differentiation of position 2′ and 4′ of α-L-iduronyl moieties in disaccharide building blocks **pp 3643–3645**
Anna Dilhas and David Bonnaffé*

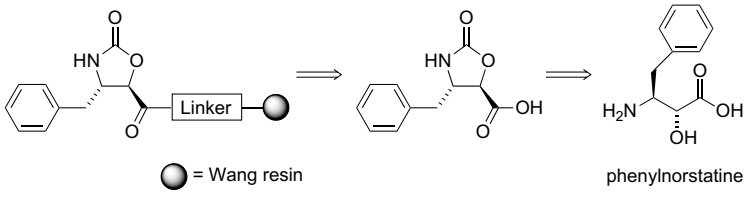


Highly enantioselective catalytic asymmetric Claisen rearrangement of 2-alkoxycarbonyl-substituted allyl vinyl ethers **pp 3647–3650**
Lars Abraham, Marleen Körner and Martin Hiersemann*



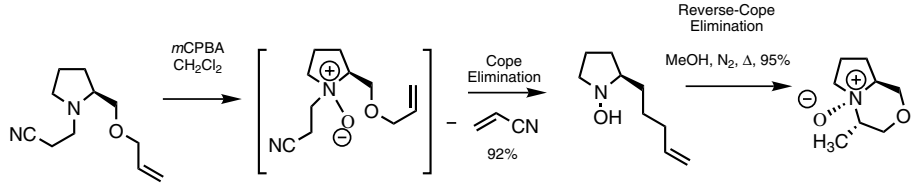
The [Cu{(*S*,*S*)-*t*-Bu-box}]$(H_2O)_2(SbF_6)_2$-catalyzed Claisen rearrangement of 2-alkoxycarbonyl-substituted allyl vinyl ethers has been studied.

A new polymer-supported Evans-type chiral auxiliary derived from α-hydroxy-β-amino acid, phenylnorstatine: synthesis and application in solid-phase asymmetric alkylation reactions **pp 3651–3654**
Tomoya Kotake, S. Rajesh, Yoshio Hayashi, Yoshie Mukai, Mitsuhiro Ueda, Tooru Kimura and Yoshiaki Kiso*

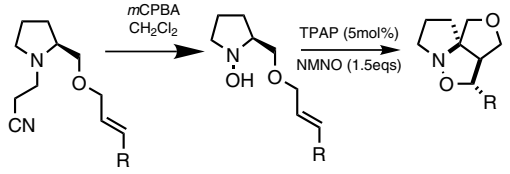


A new polymer-supported chiral oxazolidinone was synthesized and evaluated in asymmetric alkylation.

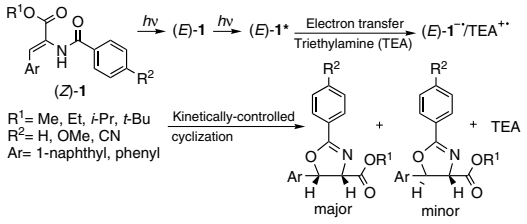
The synthesis of chiral functionalised morpholine *N*-oxides using a tandem Cope elimination/reverse-Cope elimination protocol **pp 3655–3658**
Ian A. O'Neil,* Ed Cleator, V. Elena Ramos, Alan P. Chorlton and David J. Tapolczay



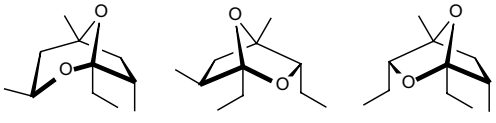
The diastereoselective synthesis of functionalised isoxazolidines using a Cope elimination/intramolecular nitrone cycloaddition strategy **pp 3659–3661**
Ian A. O'Neil,* V. Elena Ramos, Gemma L. Ellis, Ed Cleator, Alan P. Chorlton, David J. Tapolczay and S. Barret Kalindjian



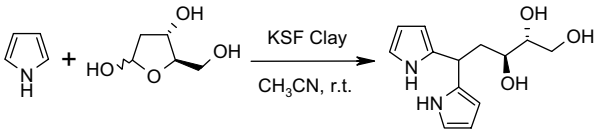
Selective and efficient transformation of *N*-(4-substituted benzoyl)-α-dehydroarylalanine alkyl esters into 4,5-dihydrooxazole derivatives via photoinduced electron transfer **pp 3663–3667**
Kei Maekawa, Takahiro Sasaki, Kanji Kubo, Tetsutaro Igarashi and Tadamitsu Sakurai*



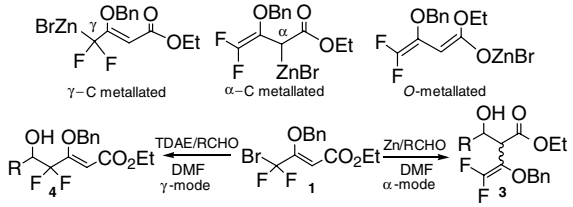
Identification and synthesis of new bicyclic acetals from caddisflies (Trichoptera) **pp 3669–3672**
Jan Bergmann, Christer Löfstedt, Vladimir D. Ivanov and Wittko Francke*



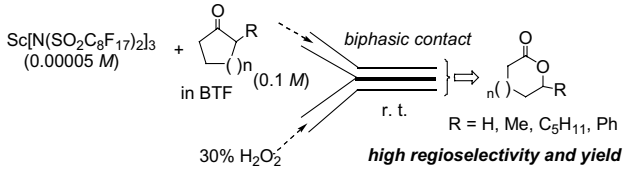
Montmorillonite clay catalyzed alkylation of pyrroles and indoles with cyclic hemi-acetals **pp 3673–3676**
J. S. Yadav,* B. V. Subba Reddy and G. Satheesh



Structural determination of a zinc reagent from ethyl 3-bromodifluoromethyl-3-benzyloxyacrylate and its reactions with aldehydes **pp 3677–3680**
Weimin Peng, Ping He, Shizheng Zhu* and Zhanting Li

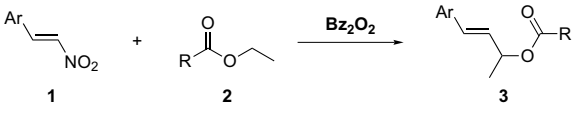


Nanoflow system for perfect regiocontrol in the Baeyer–Villiger oxidation by aqueous hydrogen peroxide using lowest concentration of a fluorous lanthanide catalyst **pp 3681–3683**
Koichi Mikami,* Md. Nazrul Islam, Masahiro Yamanaka, Yoshimitsu Itoh, Masaki Shinoda and Kenichi Kudo

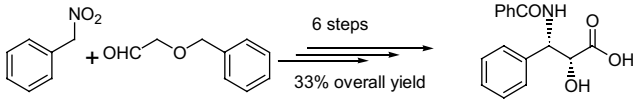


The scandium bis(perfluorooctanesulfonyl)amide-catalyzed Baeyer–Villiger reaction is significantly increased in the regioselectivity as well as the reaction rate by the fluorous nanoflow system.

Radical reactions in esters with alkoxy functionality chemistry an unusual alcohol moiety hydrogen abstraction **pp 3685–3687**
Ming-Chung Yan, Yeong-Jiunn Jang, Jhenyi Wu, Yung-Feng Lin and Ching-Fa Yao*



A highly efficient synthesis of the C-13 side-chain of taxol using Shibasaki's asymmetric Henry reaction **pp 3689–3691**
Jagat C. Borah, Siddhartha Gogoi, Joshodeep Boruwa, Biswajit Kalita and Nabin C. Barua*



OTHER CONTENTS

Contributors to this issue **p I**
Instructions to contributors **pp III–VI**

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

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