ELSEVIER

Tetrahedron Letters

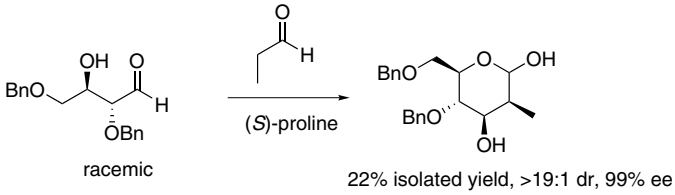
Tetrahedron Letters Vol. 46, No. 39, 2005

Contents

COMMUNICATIONS

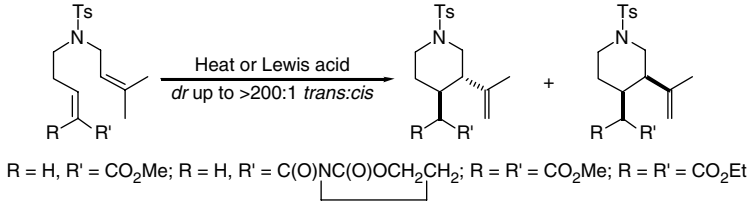
Amino acid-catalyzed dynamic kinetic asymmetric transformations (DYKAT): one-step de novo synthesis of polyketide sugars from racemic β-hydroxy aldehydes **pp 6605–6609**

Efraim Reyes and Armando Córdova*



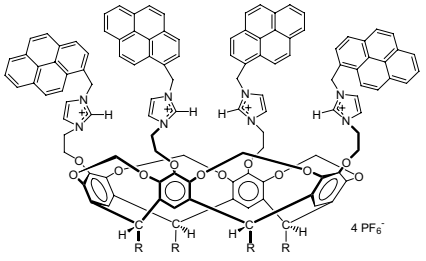
Synthesis of 3,4-disubstituted piperidines by ene cyclisation of 4-aza-1,7-dienes **pp 6611–6615**

Stephen M. Walker, Jodi T. Williams, Alexander G. Russell and John S. Snaith*



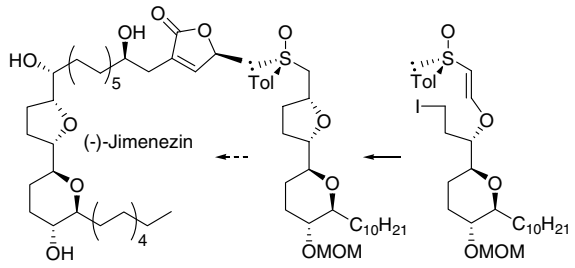
A fluorescent cavitand for the recognition of GTP **pp 6617–6620**

Sook Kyung Kim, Byung-Sik Moon, Ju Hyun Park, Young Il Seo, Hwa Soo Koh, Yeo Joon Yoon, Kap Duk Lee* and Juyoung Yoon*



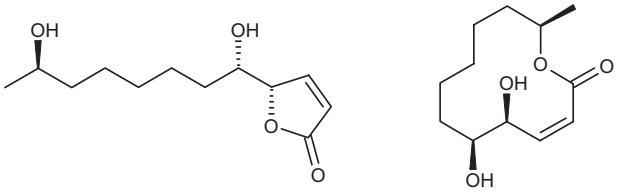
1, R = CH_2CH_2Ph

Stereoselective synthesis of (−)-jimenezin **pp 6621–6623**
Cheol Hee Hwang, Gyochang Keum, Kyoung Il Sohn, Dong Hoon Lee and Eun Lee*

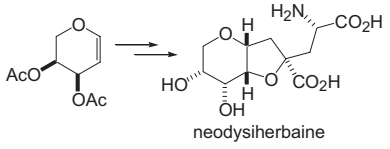


Total synthesis of jimenezin was achieved via radical cyclization of β-alkoxyacrylate and β-alkoxyvinyl sulfoxide intermediates and intramolecular olefin metathesis reaction.

Efficient total synthesis of *iso*-cladospolide B and cladospolide B **pp 6625–6627**
Satyendra Kumar Pandey and Pradeep Kumar*

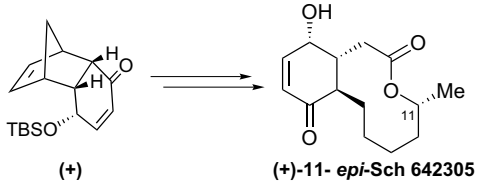


Synthesis of neodysiherbaine **pp 6629–6632**
Barry Lygo,* Daniel Slack and Claire Wilson

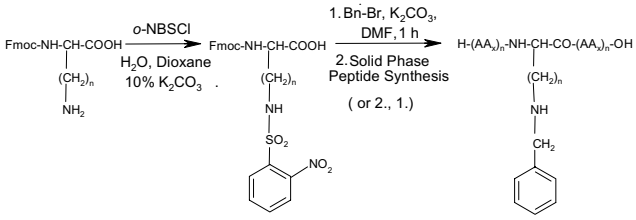


A stereocontrolled synthesis of neodysiherbaine described.

Enantioselective synthesis of *epi*-(+)-Sch 642305: observation of an interesting diastereoselection during RCM **pp 6633–6636**
Goverdhan Mehta* and Harish M. Shinde



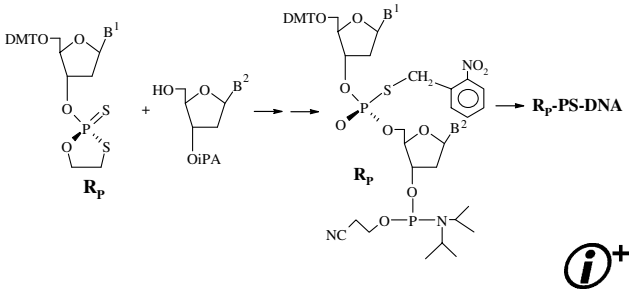
New synthetic strategy for *o*-NBS protected amino acids and their use in synthesis of mono-benzylated peptides **pp 6637–6640**
Stefania De Luca, Raffaella Della Moglie, Antonia De Capua and Giancarlo Morelli*



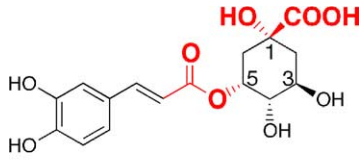
A synthetic strategy to prepare *o*-NBS protected Fmoc-amino acids under mild conditions, in a rapid and efficient way, characterised by high yields and excellent purity of the final products has been developed. The *o*-NBS protected Fmoc-amino acids are employed in solid-phase peptide synthesis to prepare peptidomimetics carrying mono-benzylated moieties.

New approach to the synthesis of oligodeoxyribonucleotides modified with phosphorothioates of predetermined sense of *P*-chirality **pp 6641–6644**
Barbara Nawrot,* Beata Rębowska, Katarzyna Cieślińska and Wojciech J. Stec

Diastereomerically pure dinucleoside *S*-protected phosphorothioates are useful substrates for the synthesis of *PS*-oligonucleotides containing *P*-stereodefined phosphorothioate bonds in preselected positions.



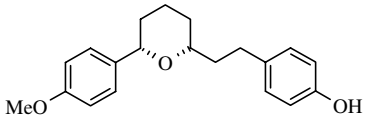
Essential structure of co-pigment for blue sepal-color development of hydrangea **pp 6645–6649**
Tadao Kondo,* Yuki Toyama-Kato and Kumi Yoshida*



essential functional structure

The blue sepal-color of *Hydrangea macrophylla* was developed by a supramolecular pigment composed of delphinidin 3-glucoside, 5-*O*-acyl quinic acid, and Al^{3+}. The essential functional structure of co-pigment for blue color development was revealed.

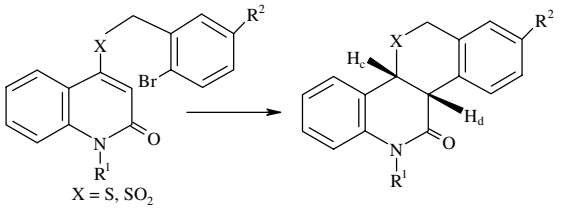
Asymmetric synthesis of the pyran antibiotic (−)-centrolobine **pp 6651–6653**
S. Chandrasekhar,* S. Jaya Prakash and T. Shyamsunder



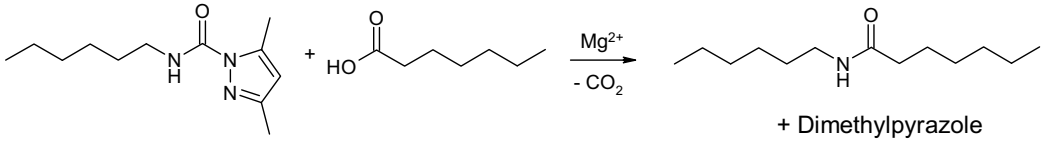
(-)-centrolobine

An expedient total synthesis of (−)-centrolobine is achieved involving asymmetric Keck allylation and stereoselective intramolecular oxy-Michael reactions as key steps.

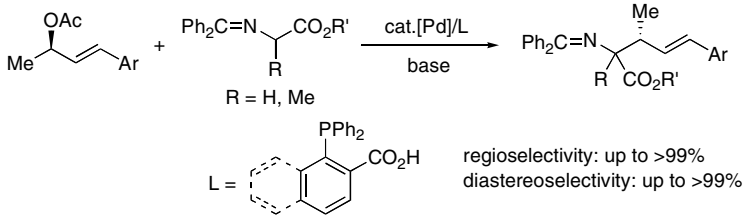
Regioselective synthesis of quinolone-annulated sulfur heterocycles by aryl radical cyclization **pp 6655–6658**
K. C. Majumdar,* P. P. Mukhopadhyay and A. Biswas



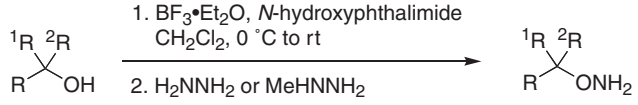
A catalyst system for the formation of amides by reaction of carboxylic acids with blocked isocyanates **pp 6659–6662**
R. Gertzmann and C. Gürtler*



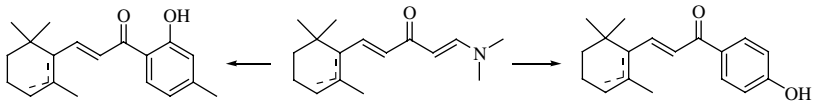
Palladium-catalyzed construction of amino acid derivatives possessing vicinal chiral quaternary and tertiary carbon centers at the α and β positions **pp 6663–6666**
Daiji Ikeda, Motoi Kawatsura* and Junichi Uenishi



A facile synthesis of (*tert*-alkoxy)amines **pp 6667–6669**
Hasan Palandoken, Chris M. Bocian, Michelle R. McCombs and Michael H. Nantz*

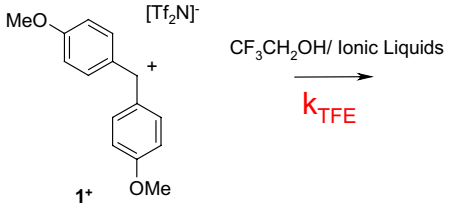


New aromatic annulation reaction via a C_{14} enaminone synthon: synthesis of 'terpenoid-like chalcones' **pp 6671–6674**
Alain Valla,* Benoist Valla, Dominique Cartier, Régis Le Guillou, Roger Labia and Pierre Potier

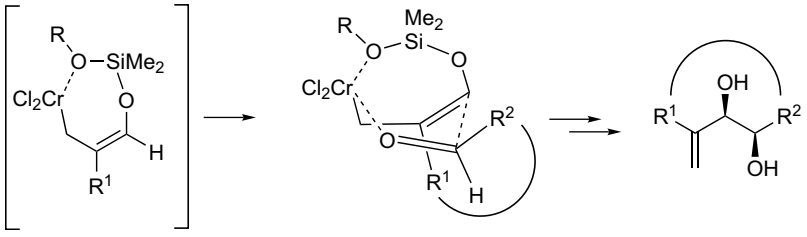


Diverse functionalized synthons from a new C-14 enaminone were reported. These C_{15} synthons were easily obtained in a one pot process. A new annulation reaction of this C-14 compound with some anions led to new 'terpenoids-like' chalcones.

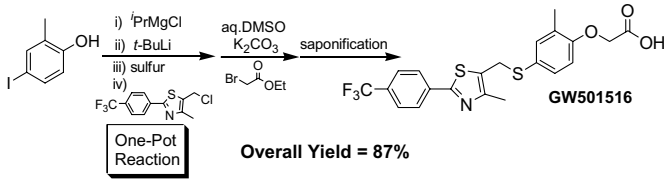
Nucleophilic substitution of chlorobis(4-methoxyphenyl)methane: reactivity of carbenium ions in ILs-trifluoroethanol mixtures **pp 6675–6678**
Riccardo Bini, Cinzia Chiappe,* Daniela Pieraccini, Paolo Piccioli and Christian Silvio Pomelli



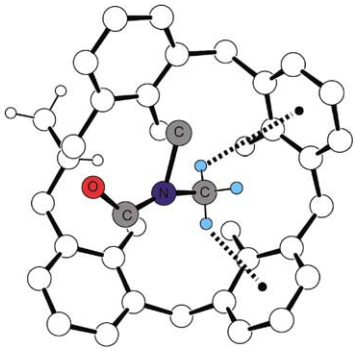
Influence of chelating silyl scavengers on the diastereoselectivity of chromium catalyzed pinacol cross couplings **pp 6679–6682**
Stefan Fischer, Ulrich Groth,* Marc Jung, Marion Lindenmaier and Till Vogel



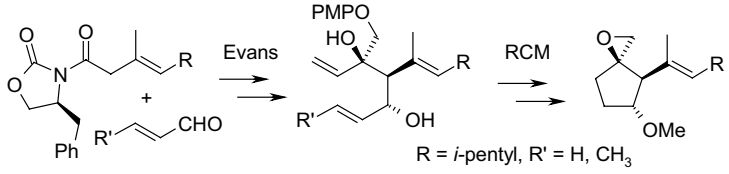
A highly efficient synthesis of antiobestic ligand GW501516 for the peroxisome proliferator-activated receptor δ through in situ protection of the phenol group by reaction with a Grignard reagent **pp 6683–6686**
Jungyeob Ham and Heonjoong Kang*



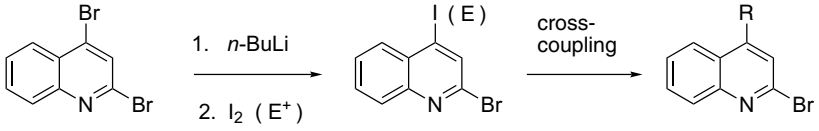
Structures and C–H···π interactions in DMF inclusion complexes of homoazacalix[4]arenes **pp 6687–6690**
Hiroyuki Takemura,* Tetsuo Iwanaga and Teruo Shinmyozu



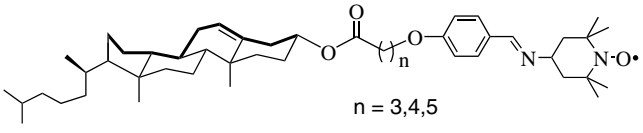
A simple spiroepoxide as methionine aminopeptidase-2 inhibitor: synthetic problems and solutions **pp 6691–6695**
Vincent Rodeschini, Pierre Van de Weghe, Céline Tarnus and Jacques Eustache*



Regioselective lithium–halogen exchange and palladium-catalyzed cross-coupling reactions of 2,4-dihaloquinolines **pp 6697–6699**
Daniel L. Comins,* Jason M. Nolan and Ibrahim D. Bori

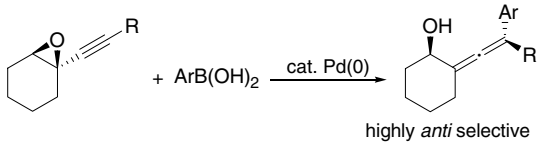


Glass-forming organic radical compounds with cholesterol and benzylideneamine cores **pp 6701–6703**
Hidetoshi Kinoshita, Masayuki Hata, Ammathnadu S. Achalkumar, Channabasaveswar V. Yelamaggad, Hiroki Akutsu, Jun-ichi Yamada and Shin'ichi Nakatsuji*

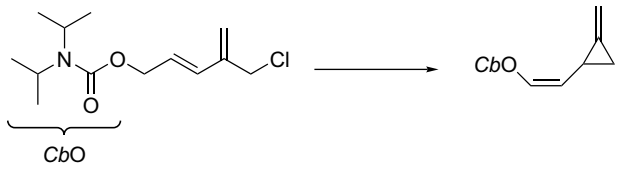


Novel glass-forming radical compounds with cholesterol and benzylideneamine cores showed characteristic heat-responsive magnetic properties and formed a 4-amino-TEMPO-Cu(hfac)$_2$ (1:2) complex when treated with Cu(hfac)$_2$.

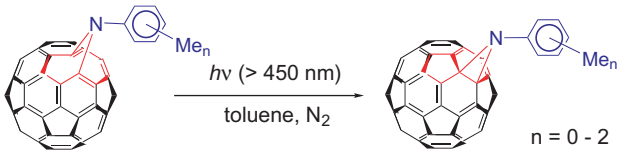
Palladium-catalyzed coupling reaction of propargylic oxiranes with arylboronic acids in aqueous media **pp 6705–6708**
Masahiro Yoshida,* Hirofumi Ueda and Masataka Ihara*



Formation of 1-methylene-2-vinylcyclopropane by intramolecular S'_E-cycloalkylation reaction **pp 6709–6711**
Sven Brandau, Roland Fröhlich and Dieter Hoppe*

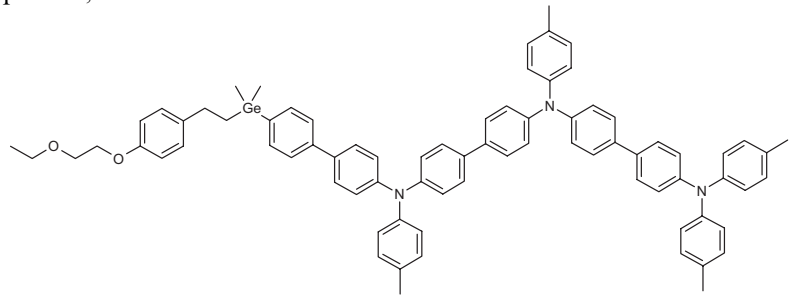


Drastic change in the rate of photochemical rearrangement of 1,6-(*N*-phenyl)aza-[60]fulleroids by switching the excited states through simple methyl substitution on the phenyl group **pp 6713–6716**
Akihiko Ouchi,* Bahlul Z. S. Awen, Hongxia Luo, Yasuyuki Araki and Osamu Ito*

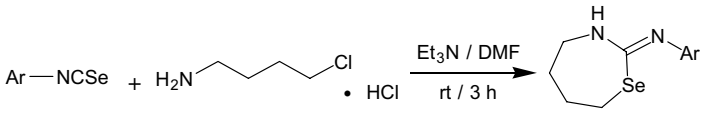


The reaction rate for the photochemical rearrangement of azafulleroids to aziridinofullerenes differed ca. 3000-fold depending on the number and position of the methyl substituent(s) on the *N*-phenyl group.

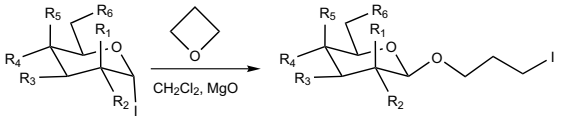
Solution phase studies towards the synthesis of triarylamine oligomers using a germanium linker on a solid support **pp 6717–6721**
R. Anémian,* D. C. Cupertino, P. R. Mackie and S. G. Yeates



First synthesis of a selenazepane **pp 6723–6725**
Geoffroy L. Sommen, Anthony Linden and Heinz Heimgartner*

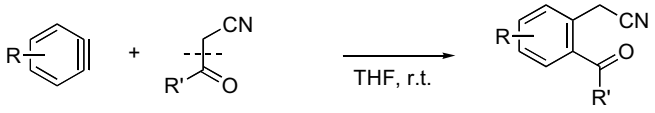


Thermal effect in β-selective glycosylation reactions using glycosyl iodides **pp 6727–6728**
Mohamed H. El-Badry and Jacquelyn Gervay-Hague*

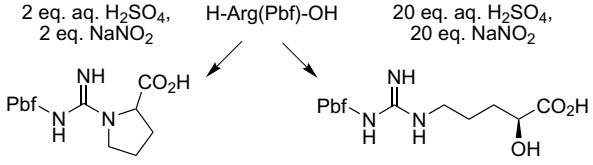


9: R_1, R_4=H; R_2, R_3, R_5, R_6=OBn
10: R_2, R_5=H; R_1, R_3, R_4=OBn; R_6=OAc
11: R_1, R_5=H; R_2, R_3, R_4, R_6=OBn
12: R_1, R_5=H; R_2, R_3, R_4, R_6=OTMS

Aryne insertion into α-cyanocarbonyl compounds: direct introduction of carbonyl and cyanomethyl moieties into the aromatic skeletons **pp 6729–6731**
Hiroto Yoshida,* Masahiko Watanabe, Joji Ohshita and Atsutaka Kunai*

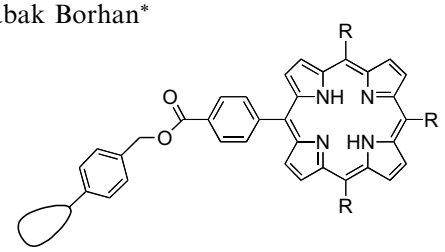


NO as temporary guanidino-protecting group provides efficient access to Pbf-protected argininic acid **pp 6733–6735**
Tommaso Cupido, Jan Spengler, Klaus Burger and Fernando Albericio*



Pbf-protected argininic acid [H–OArg(Pbf)–OH], a building block for Fmoc-solid phase peptide synthesis, is obtained in high yield when a large excess of nitrosating agent is used in conjunction with intermediate N^{δ}-nitrosyl protection and N^{δ}-denitrosation in aqueous acidic medium.

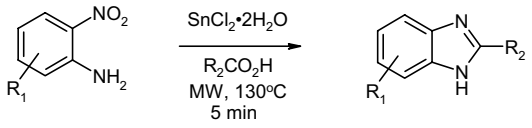
Polymer-supported synthesis of mono-substituted porphyrins **pp 6737–6740**
Qifei Yang, Kristina K. Streb and Babak Borhan*



polymer-bound mono-substituted porphyrin

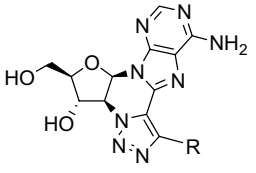
Anchoring of substituted benzaldehydes to soluble and insoluble polymers allows for the synthesis of mono-substituted tetraarylporphyrins.

Rapid one-pot preparation of 2-substituted benzimidazoles from 2-nitroanilines using microwave conditions **pp 6741–6743**
David S. VanVliet, Paul Gillespie and Jan J. Scicinski*



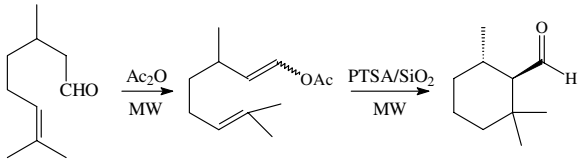
A high yielding one-pot procedure for the generation of 2-substituted benzimidazoles directly from 2-nitroanilines by in situ reduction and cyclization using a microwave procedure is described.

Synthesis of adenosine-based fluorosides containing a novel heterocyclic ring system **pp 6745–6748**
Gavin O'Mahony, Eleonor Ehrman and Morten Grøtli*

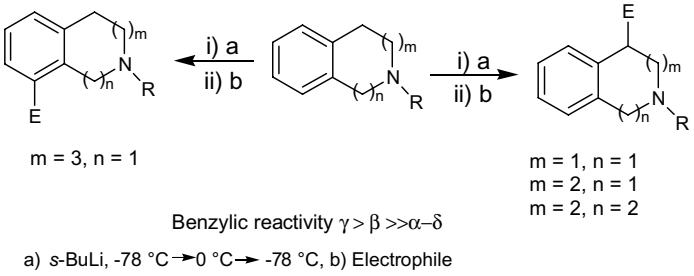


The synthesis of a new class of fluorescent nucleoside analogues ('fluorosides') containing a novel heterocyclic skeleton is reported.

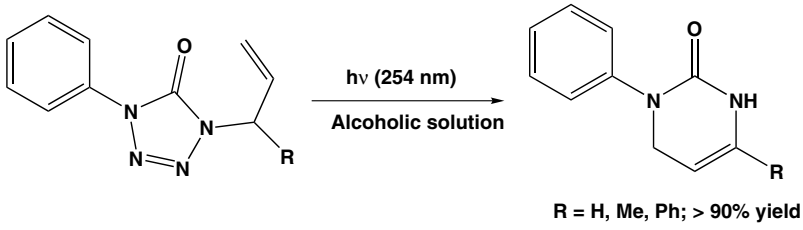
Fast preparation of dihydrocyclocitral from citronellal under solventless microwave irradiation **pp 6749–6751**
Nhuan Ngoc Doan, Thach Ngoc Le, Poul Erik Hansen and Fritz Duus*



'Counter-intuitive' regioselectivity, subtle steric and solvation effects in lithiation of cyclic tertiary aralkylamines pp 6753–6755
Satinder V. Kessar,* Paramjit Singh, Kamal Nain Singh, P. Venugopalan, Amarjit Kaur, Manu Mahendru and Rajiv Kapoor

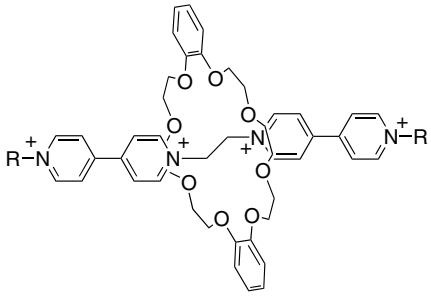


Novel efficient synthesis of 3,4-dihydro-6-substituted-3-phenylpyrimidin-2(1*H*)-ones pp 6757–6760
Luís M. T. Frija, Igor V. Khmelinskii and M. Lurdes S. Cristiano*

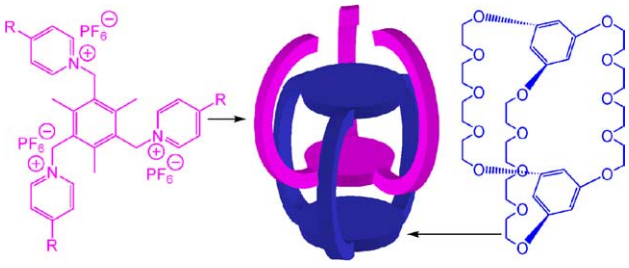


Photolysis (λ = 254 nm) of 4-allyltetrazolones in alcoholic solutions produces stable 3,4-dihydro-6-substituted-3-phenylpyrimidin-2(1*H*)-ones in nearly quantitative yields.

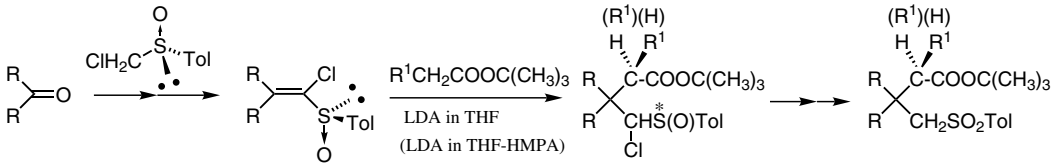
Electrochemically induced dethreading of a 2-pseudorotaxane based on the 1,2-bis(4,4′-pyridinium)-ethane/24-crown-8 ether motif pp 6761–6763
Brian Gorodetsky and Neil R. Branda*



Slow-exchange C_3-symmetric cryptand/trispyridinium inclusion complexes containing non-linear guests: a new type of threaded structure pp 6765–6769
Feihe Huang, Frank R. Fronczek, Mehdi Ashraf-Khorassani and Harry W. Gibson*



A novel method for asymmetric synthesis of both enantiomers of α-substituted carboxylic acid derivatives from optically active 1-chlorovinyl *p*-tolyl sulfoxides and lithium ester enolates with 1,4-chiral induction from the sulfur chiral center **pp 6771–6775**
Shimpei Sugiyama, Masahiro Kido and Tsuyoshi Satoh*



OTHER CONTENTS

Erratum **p 6777**
Contributors to this issue **p I**
Instructions to contributors **pp III–VI**

*Corresponding author
ⓘ+ Supplementary data available via ScienceDirect

COVER

Total synthesis of (−)-jimenezin was achieved via radical cyclization of β-alkoxyacrylate and β-alkoxyvinyl sulfoxide intermediates and intramolecular olefin metathesis reaction. *Tetrahedron Letters* **2005**, *46*, 6621–6623.

Indexed/Abstracted in: AGRICOLA, Beilstein, BIOSIS Previews, CAB Abstracts, Chemical Abstracts, Chemical Engineering and Biotechnology Abstracts, Current Biotechnology Abstracts, Current Contents: Life Sciences, Current Contents: Physical, Chemical and Earth Sciences, Current Contents Search, Derwent Drug File, Ei Compendex, EMBASE/Excerpta Medica, Medline, PASCAL, Research Alert, Science Citation Index, SciSearch

ELSEVIER

ISSN 0040-4039