ELSEVIER

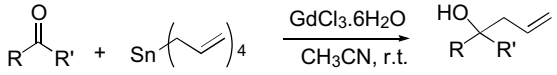
Tetrahedron Letters

Tetrahedron Letters Vol. 47, No. 26, 2006

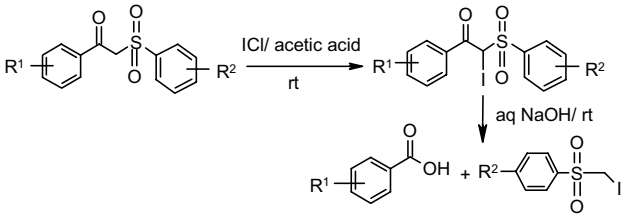
Contents

COMMUNICATIONS

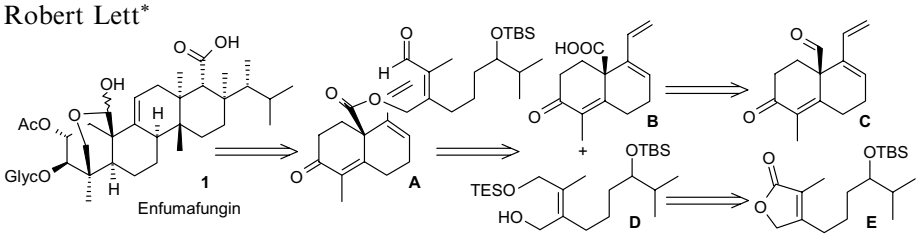
Gadolinium(III) chloride: a novel and an efficient reagent for the synthesis of homoallylic alcohols **pp 4315–4318**
B. Venkat Lingaiah, G. Ezikiel, T. Yakaiah, G. Venkat Reddy and P. Shanthan Rao*



Synthesis of α-iodo β-ketosulfones and α-iodo methylsulfones using iodine monochloride **pp 4319–4323**
N. Suryakiran, T. Srikanth Reddy, V. Suresh, M. Lakshman and Y. Venkateswarlu*

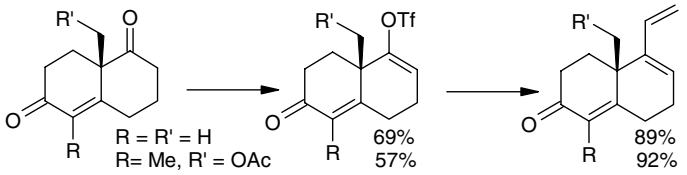


A synthetic approach to enfumafungin **pp 4325–4330**
Nicolas Zorn and Robert Lett*



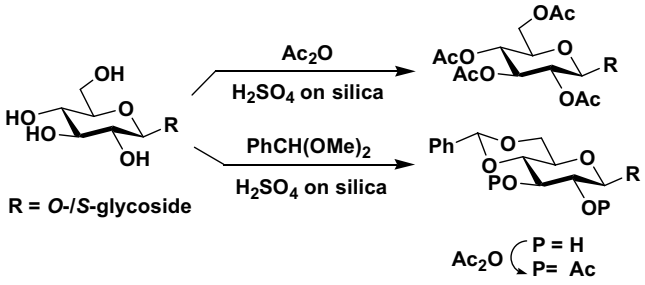
The stereospecific synthesis of the dienophile subunit precursor **D** was achieved from the butenolide **E**. The ester corresponding to the precursor of **A** was obtained in 67% overall yield from the aldehyde **C**, via a chlorite oxidation and subsequent Mitsunobu reaction of the acid **B** with **D**. Tentative IMDA reactions of **A** did not presently afford the adduct (thermal or Lewis acid catalysis conditions).

Enol triflates derived from the Wieland–Miescher ketone and an analog bearing an angular acetoxymethyl group: their highly regioselective synthesis and Stille coupling with vinyl(tributyl)tin **pp 4331–4335**
Nicolas Zorn and Robert Lett*

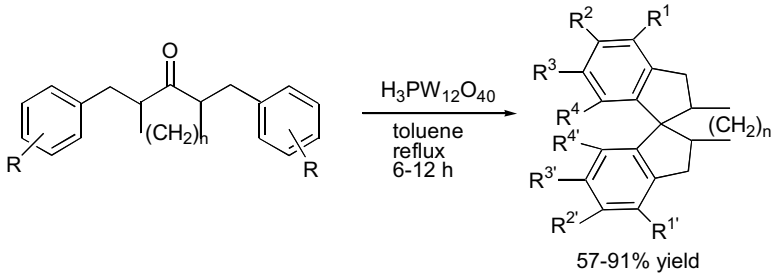


A highly selective synthesis of the enol triflate derived from the 9-keto group was achieved directly from diketones in kinetic conditions. The isomeric triflates were also prepared selectively in other conditions (kinetic or thermodynamic) and their specific Stille couplings achieved.

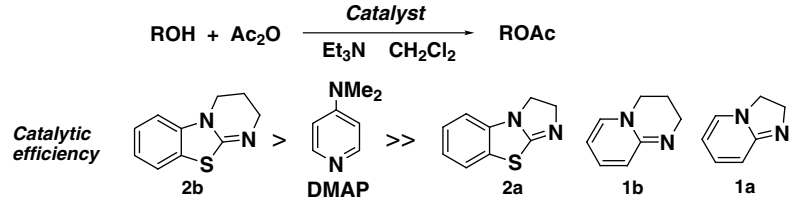
Sulfuric acid immobilized on silica: an efficient promoter for one-pot acetalation–acetylation of sugar derivatives **pp 4337–4341**
Balaram Mukhopadhyay



Synthesis of spirobiindanes via bis-cyclization reaction of the 1,5-diaryl-3-pentanones catalyzed by heteropoly acids **pp 4343–4345**
Kun Lan, Zixin Shan* and Shao Fan



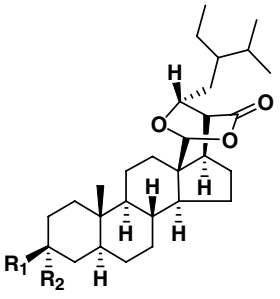
Unexpected reactivity of annulated 3*H*-benzothiazol-2-ylideneamines as an acyl transfer catalyst **pp 4347–4350**
Megumi Kobayashi and Sentaro Okamoto*



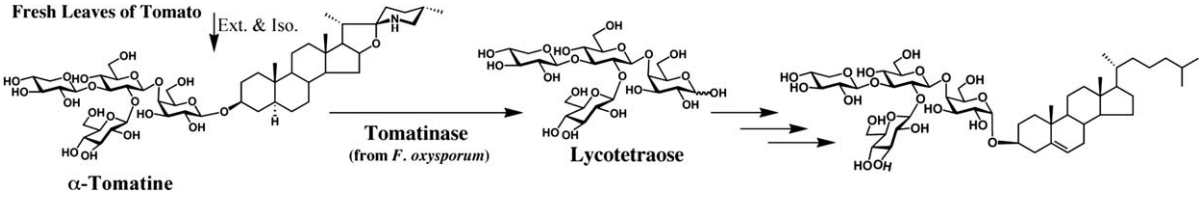
3,4-Dihydro-2*H*-9-thia-1,4a-diazafluorene (**2b**) was found to be an extremely effective catalyst, the reaction with which was faster than that with DMAP.

Trichiol and 3-epitrichiol acetate, novel cytotoxic sterols with an unprecedented 2,6-dioxabicyclo-[2.2.2]octan-3-one ring system from the myxomycete *Trichia favoginea* var. *persimilis* **pp 4351–4354**
Kouken Kaniwa, Takashi Ohtsuki, Tomomi Sonoda, Yukinori Yamamoto, Masahiko Hayashi, Kanki Kamiyama and Masami Ishibashi*

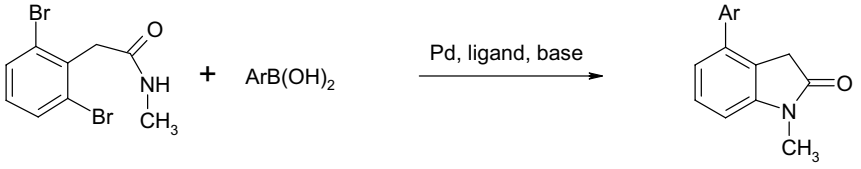
Two new sterols, trichiol (R_1 = OH, R_2 = H), and 3-epitrichiol acetate (R_1 = H, R_2 = OAc) with a 2,6-dioxabicyclo[2.2.2]octan-3-one ring were isolated from the field-collected fruit bodies of myxomycete *Trichia favoginea* var. *persimilis*.



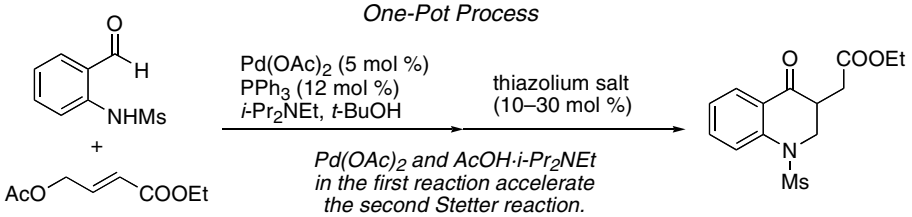
Chemical trans-glycosylation of bioactive glycolinkage: synthesis of an α-lycotetraosyl cholesterol **pp 4355–4359**
Tsuyoshi Ikeda,* Ken Yamauchi, Daisuke Nakano, Kenji Nakanishi, Hiroyuki Miyashita, Shin-ichi Ito and Toshihiro Nohara



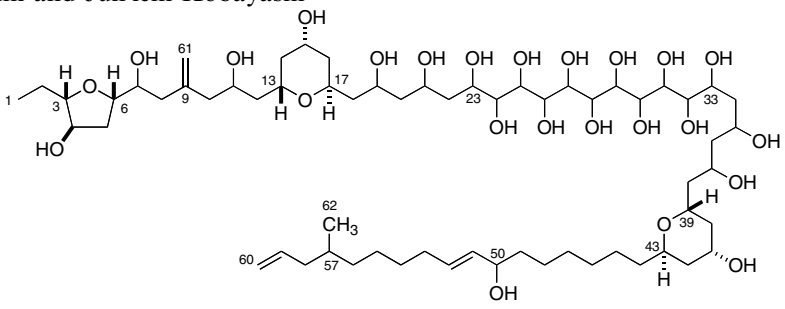
An efficient one-pot synthesis of novel 4-aryl-1-methyloxindoles **pp 4361–4364**
Adri van den Hoogenband,* Jos H. M. Lange, Wouter I. Iwema-Bakker, Jack A. J. den Hartog, Jord van Schaik, Rolf W. Feenstra and Jan Willem Terpstra



Efficient synthesis of 3-substituted 2,3-dihydroquinolin-4-ones using a one-pot sequential multi-catalytic process: Pd-catalyzed allylic amination–thiazolium salt-catalyzed Stetter reaction cascade **pp 4365–4368**
Tetsuhiro Nemoto, Tomoaki Fukuda and Yasumasa Hamada*

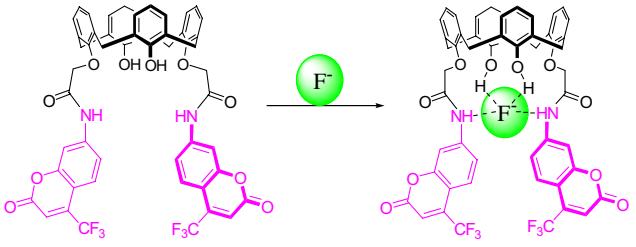


Amphezonol A, a novel polyhydroxyl metabolite from marine dinoflagellate *Amphidinium* sp. **pp 4369–4371**
Takaaki Kubota, Yusuke Sakuma, Kazutaka Shimbo, Masashi Tsuda, Michiko Nakano, Yasuhiro Uozumi and Jun'ichi Kobayashi*



Amphezonol A

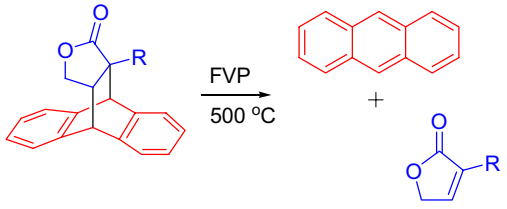
Fluoride sensing with a PCT-based calix[4]arene **pp 4373–4376**
Suh Hyun Lee, Hyun Jung Kim, Yeon Ok Lee, Jacques Vicens and Jong Seung Kim*



(1)

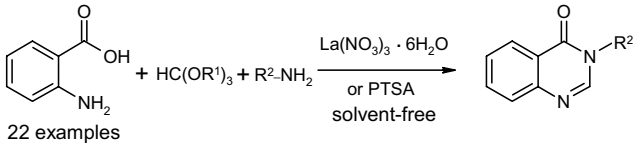
red-shift absorption by PCT
& quenched emission by PET

Synthesis of substituted 3-furan-2(5*H*)-ones via an anthracene Diels–Alder sequence **pp 4377–4380**
Simon Jones* and Ian Wilson



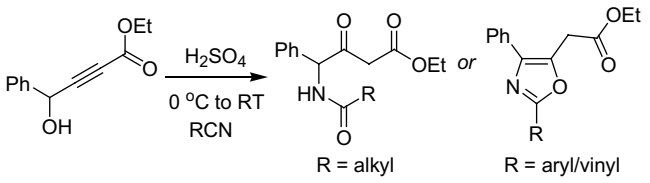
Lactones derived from the maleic anhydride–anthracene Diels–Alder cycloadduct undergo *C*-alkylation with a variety of electrophiles, leading to 3-substituted butenolides in good to excellent yields.

Lanthanum(III) nitrate hexahydrate or *p*-toluenesulfonic acid catalyzed one-pot synthesis of 4(3*H*)-quinazolinones under solvent-free conditions **pp 4381–4383**
Manchala Narasimhulu, Kondempudi Chinni Mahesh, Thummalapally Srikanth Reddy, Karuturi Rajesh and Yenamandra Venkateswarlu*

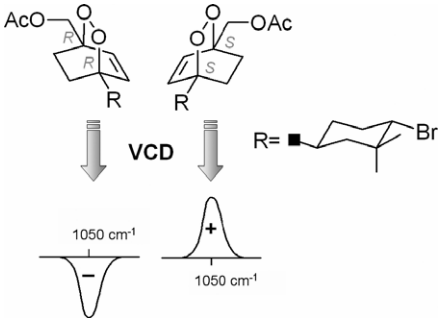


22 examples

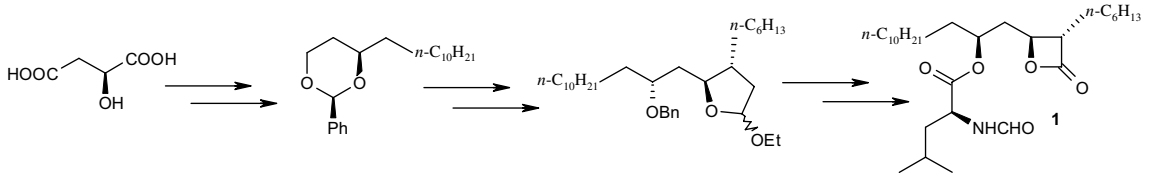
Synthesis of γ-*N*-acylamino-β-keto esters and ethyl 5-oxazoleacetates via Ritter reaction and hydration of γ-hydroxy-α,β-alkynoic esters **pp 4385–4388**
K. Srinivasa Rao, D. Srinivasa Reddy, Manojit Pal, K. Mukkanti and Javed Iqbal*



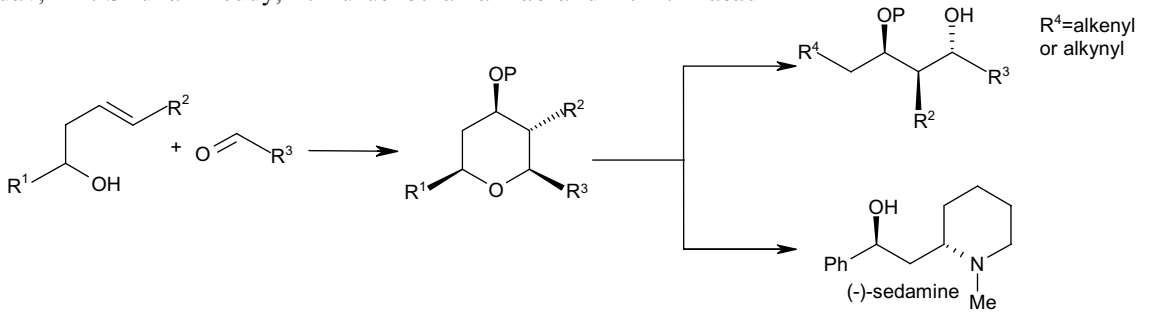
Absolute configurations of endoperoxides determined by vibrational circular dichroism (VCD) **pp 4389–4392**
Kenji Monde,* Tohru Taniguchi, Nobuaki Miura, Charles S. Vairappan and Minoru Suzuki



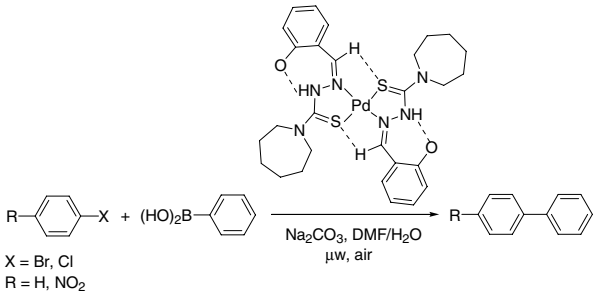
Stereoselective synthesis of (−)-tetrahydrolipstatin via a radical cyclization based strategy **pp 4393–4395**
J. S. Yadav,* K. Vishweshwar Rao, M. Sridhar Reddy and A. R. Prasad



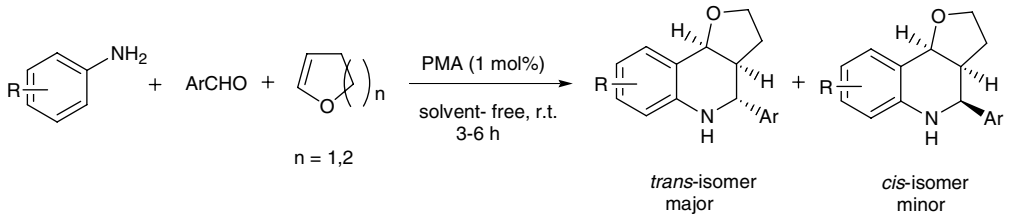
Stereoselective synthesis of *anti*-1,3-diol units via Prins cyclisation: application to the synthesis of (−)-sedamine **pp 4397–4401**
J. S. Yadav,* M. Sridhar Reddy, P. Purushothama Rao and A. R. Prasad



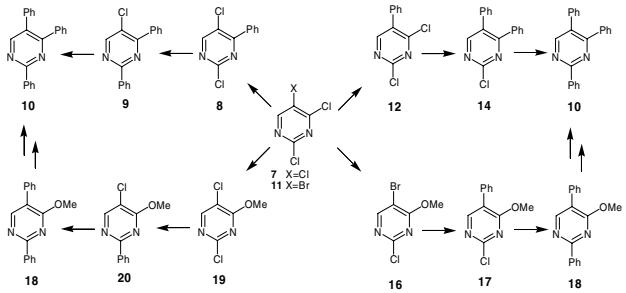
Microwave-promoted Suzuki–Miyaura cross-coupling of aryl halides with phenylboronic acid under aerobic conditions catalyzed by a new palladium complex with a thiosemicarbazone ligand **pp 4403–4407**
Ioannis D. Kostas,* Georgios A. Heropoulos,* Dimitra Kovala-Demertzi,* Paras N. Yadav, Jerry P. Jasinski, Mavroudis A. Demertzis, Fotini J. Andreadaki, Giang Vo-Thanh, Alain Petit and André Loupy



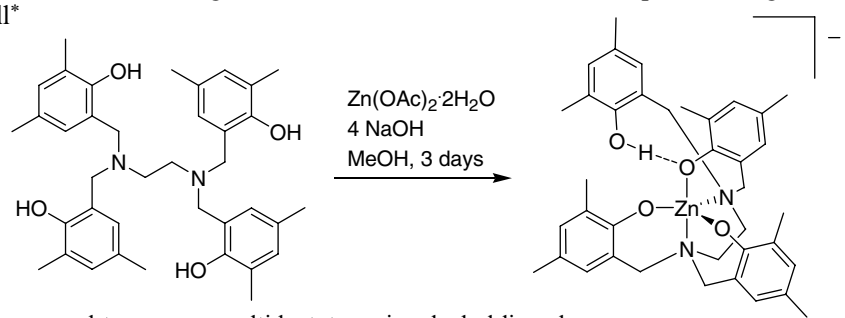
Phosphomolybdic acid-catalyzed efficient one-pot three-component aza-Diels–Alder reactions under solvent-free conditions: a facile synthesis of *trans*-fused pyrano- and furanotetrahydroquinolines **pp 4409–4413**
K. Nagaiah,* D. Sreenu, R. Srinivasa Rao, G. Vashishta and J. S. Yadav



Microwave-assisted, efficient and regioselective Pd-catalyzed C-phenylation of halopyrimidines **pp 4415–4418**
Susana Conde Ceide and Antonio Garrido Montalban*

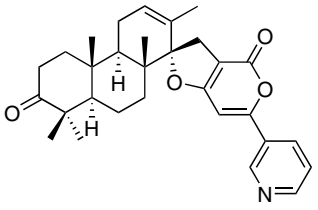


Multidentate aminophenol ligands prepared with Mannich condensations **pp 4419–4423**
Christine S. Higham, Daniel P. Dowling, Janet L. Shaw, Anil Cetin, Christopher J. Ziegler and Joshua R. Farrell*

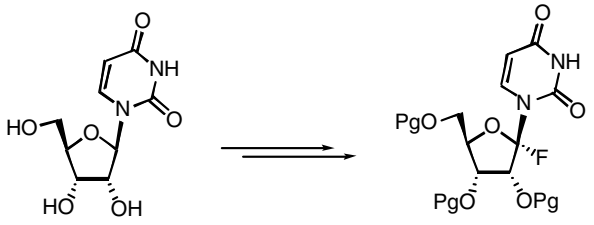


Mannich condensations are used to prepare multidentate aminoalcohol ligands.

First synthesis and absolute configuration of decaturin D **pp 4425–4428**
Shintaro Hosoe, Toshiaki Nakai, Mitsuru Sasaki and Hirosato Takikawa*

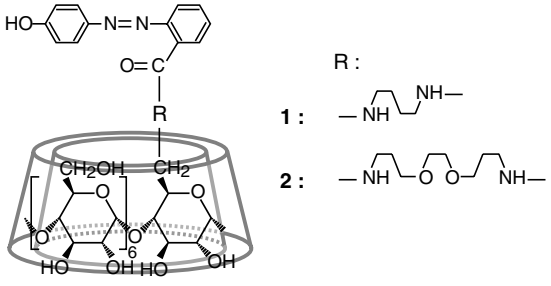


Synthesis of pyrimidine 1′-fluoronucleosides **pp 4429–4432**
Tetsuya Kodama, Satoshi Shuto* and Akira Matsuda

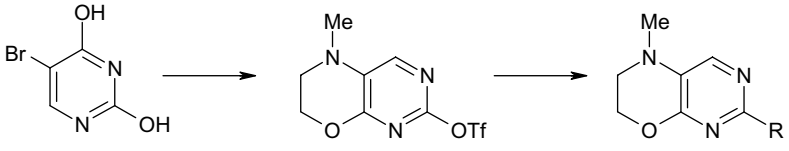


Synthesis and different molecular recognition of two dye-modified cyclodextrins with spacer of different length **pp 4433–4436**
Tetsuo Kuwabara,* Kazuyo Shiba, Mayumi Ozawa, Naoya Miyajima and Yasutada Suzuki

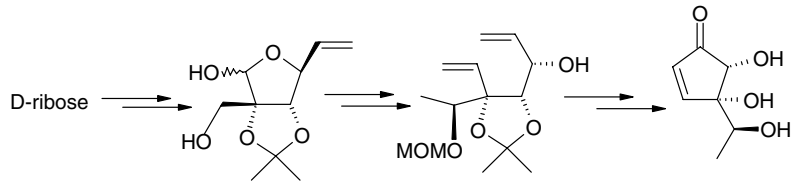
Two hydroxyazobenzene-modified β-cyclodextrins (CDs) with a different spacer length between CD and dye displayed the guest-induced color changes with a remarkable difference in the molecular recognition ability.



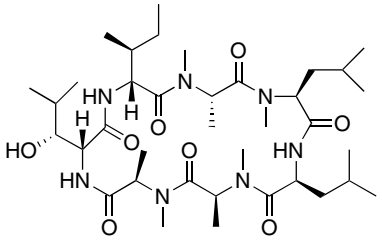
Synthesis and functionalization of 2-hydroxypyrimido[4,5-*b*][1,4]oxazine **pp 4437–4440**
S. El Kazzouli, G. Lavecchia, S. Berteina-Raboin* and G. Guillaumet



Stereoselective approach to pentenocins using RCM: synthesis of 6-*epi*-pentenocin B **pp 4441–4443**
G. Venkata Ramana and B. Venkateswara Rao*

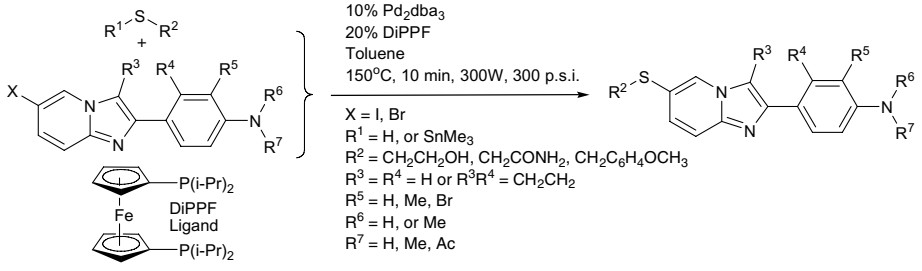


(−)-Ternatin, a highly N-methylated cyclic heptapeptide that inhibits fat accumulation: structure and synthesis **pp 4445–4448**
Kenichiro Shimokawa, Itsuka Mashima, Akiko Asai, Kaoru Yamada, Masaki Kita and Daisuke Uemura*

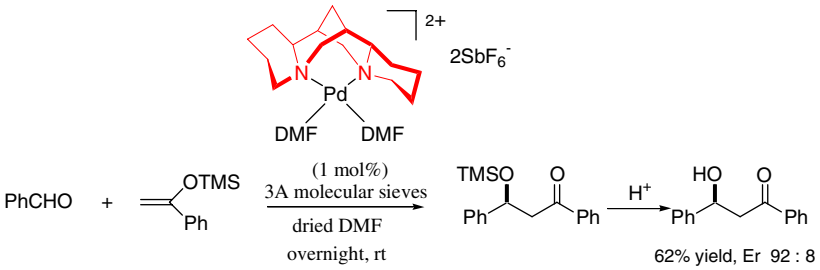


Ternatin (**1**)

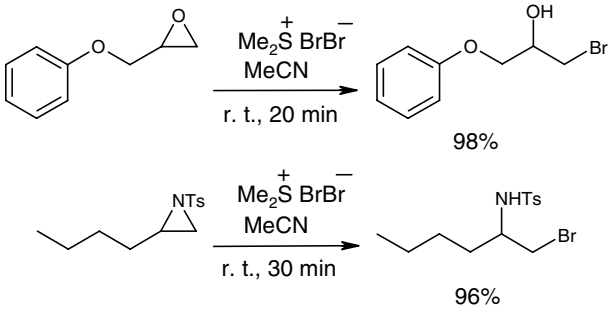
Rapid palladium-catalyzed cross-coupling in the synthesis of aryl thioethers under microwave conditions **pp 4449–4452**
Lisheng Cai,* Jessica Cuevas, Yi-Yuan Peng and Victor W. Pike



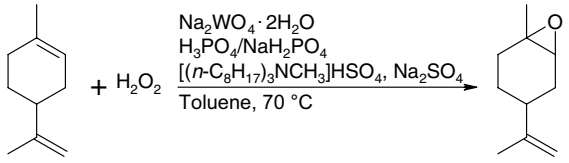
Dicationic ((−)-sparteine)palladium-catalyzed enantioselective aldol reaction of aldehydes with 1-phenyl-1-trimethylsilyloxyethene, proceeding via a palladium enolate **pp 4453–4456**
Syun-ichi Kiyooka,* Yushi Takeshita, Yoshinori Tanaka, Takafumi Higaki and Yosuke Wada



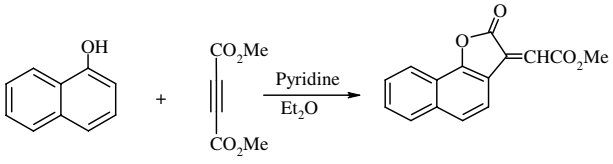
Highly regioselective ring opening of epoxides and aziridines using (bromodimethyl)sulfonium bromide **pp 4457–4460**
Biswanath Das,* Maddeboina Krishnaiah and Katta Venkateswarlu



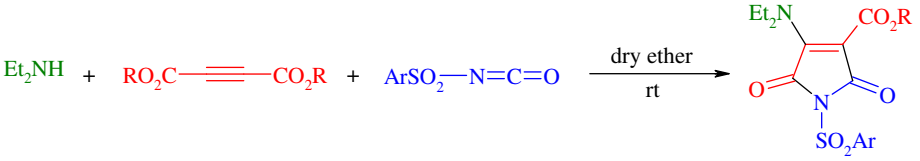
A catalytic, environmentally benign method for the epoxidation of unsaturated terpenes with hydrogen peroxide **pp 4461–4463**
Georgia Grigoropoulou and James H. Clark*



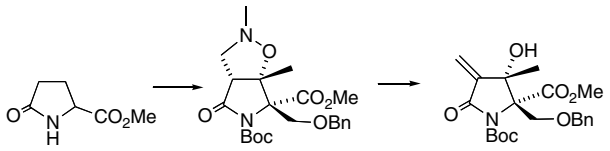
Synthesis of fused α-methylene-γ-butyrolactone derivatives through pyridine-induced addition of phenols to dimethyl acetylenedicarboxylate **pp 4465–4468**
Issa Yavari* and Zinatossadat Hossaini



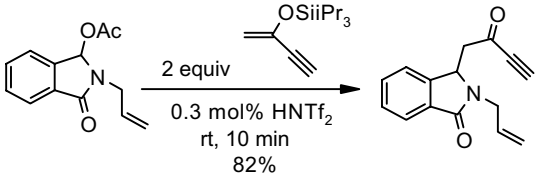
A new method for the synthesis of functionalized maleimides **pp 4469–4471**
Abdolali Alizadeh,* Farnaz Movahedi and Abbas Ali Esmaili



Studies toward the synthesis of salinosporamide A, a potent proteasome inhibitor **pp 4473–4475**
Virginie Caubert and Nicole Langlois*

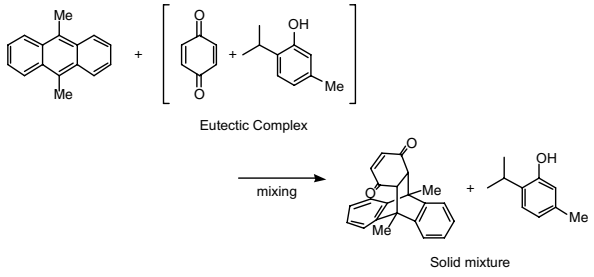


Eco-friendly *N*-acyliminium ion chemistry: solvent-free $HNTf_2$ and TIPSOTf-catalyzed α-amidoalkylation of silicon-based π-nucleophiles **pp 4477–4480**
Marie-José Tranchant, Charlotte Moine, Raja Ben Othman, Till Bousquet, Mohamed Othman and Vincent Dalla*

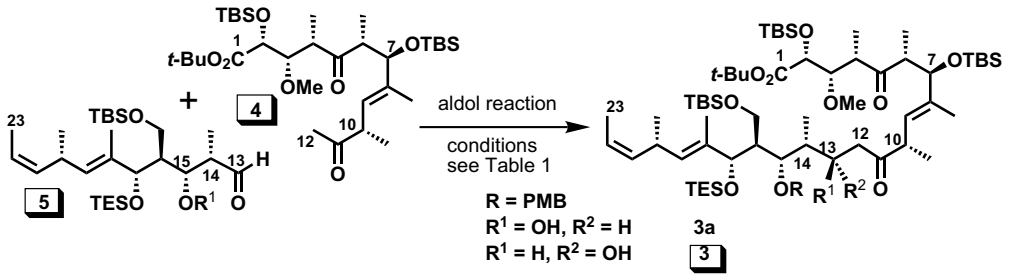


A key improvement in the α-amido alkylation between generic silicon-based π-nucleophiles and cyclic *N*,*O*-acetals catalyzed by $HNTf_2$ and TIPSOTf is achieved with the development of solvent-free variant. This has led to a simple and totally eco-friendly procedure now enabling the reaction to proceed at very low catalyst loadings.

A Diels–Alder reaction catalyzed by eutectic complexes autogenously formed from solid state phenols and quinones **pp 4481–4484**
Hiroto Watanabe, Ryota Hiraoka and Mamoru Senna*

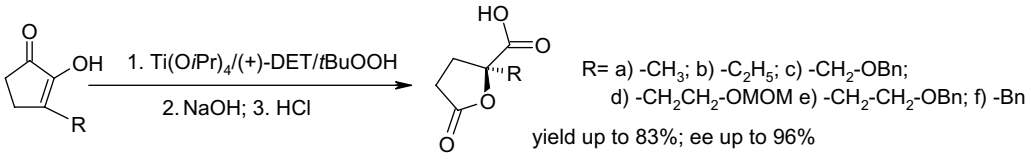


Synthetic studies toward the total synthesis of tedanolide: assembly of the C1–C23 carbon backbone **pp 4485–4489**
Chek-Ming Wong and Teck-Peng Loh*

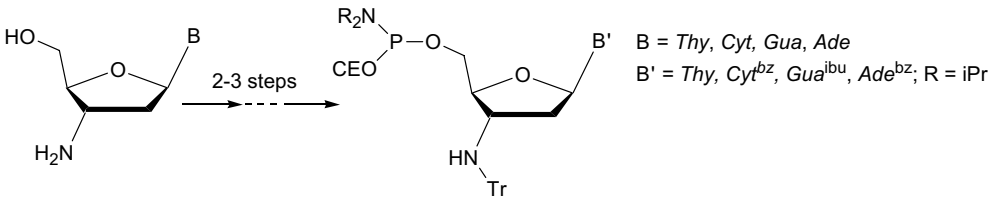


A stereoselective assembly of the C1–C23 fragment representing the carbon backbone of tedanolide has been accomplished.

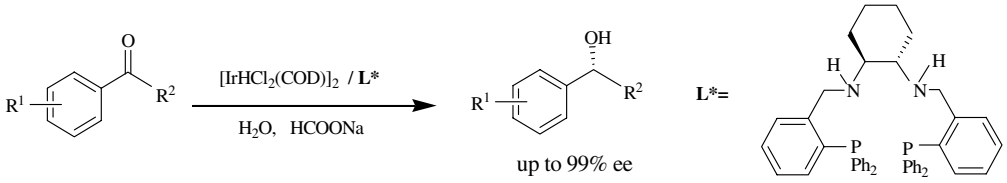
Asymmetric synthesis of 2-alkyl-substituted 2-hydroxyglutaric acid γ-lactones **pp 4491–4493**
Anne Paju, Marit Laos, Artur Jõgi, Malle Päri, Raissa Jäälaid, Tõnis Pehk, Tõnis Kanger and Margus Lopp*



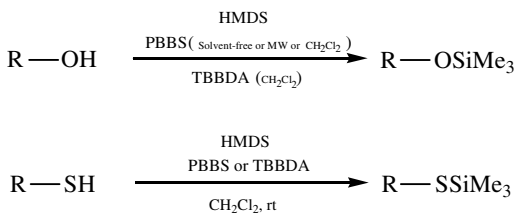
A new approach to oligonucleotide N3′ → P5′ phosphoramidate building blocks **pp 4495–4499**
Daria Zielinska, Krisztina Pongracz and Sergei M. Gryaznov*



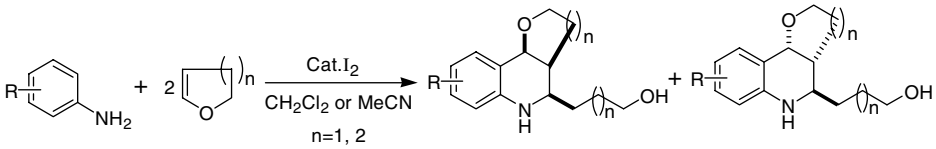
Highly efficient chiral PNNP ligand for asymmetric transfer hydrogenation of aromatic ketones in water **pp 4501–4503**
Yan Xing, Jian-Shan Chen, Zhen-Rong Dong, Yan-Yun Li and Jing-Xing Gao*



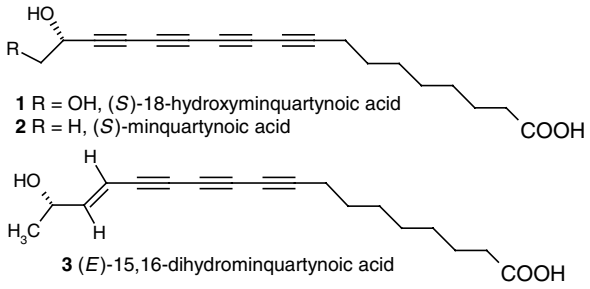
Poly(*N*-bromobenzene-1,3-disulfonamide) and *N*,*N*,*N*′,*N*′-tetrabromobenzene-1,3-disulfonamide as novel catalytic reagents for silylation of alcohols, phenols, and thiols using hexamethyldisilazane **pp 4505–4508**
Ramin Ghorbani-Vaghei,* Mohammad Ali Zolfigol, Mahdieh Chegeny and Hojat Veisi



A highly efficient synthesis of 1,2,3,4-tetrahydroquinolines by molecular iodine-catalyzed domino reaction of anilines with cyclic enol ethers **pp 4509–4512**
Xu-Feng Lin, Sun-Liang Cui and Yan-Guang Wang*



Total syntheses of the highly potent anti-cancer polyacetylenes, (*S*)-18-hydroxyminquartynoic acid, (*S*)-minquartynoic acid and (*E*)-15,16-dihydrominquartynoic acid **pp 4513–4516**
Gowravaram Sabitha,* Ch. Srinivas Reddy and J. S. Yadav



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*Corresponding author
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