

Tetrahedron Letters Vol. 46, No. 20, 2005

Contents

COMMUNICATIONS

Efficient synthesis of novel pentacyclic 6,7-dihydro-5a,7a,13,14-tetraaza-pentaphene-5,8-diones

pp 3445-3447

Maria de Fatima Pereira, Laurent Picot, Jean Guillon, Jean-Michel Léger, Christian Jarry, Valérie Thiéry and Thierry Besson*

$$R + \bigvee_{N} \bigvee_{N} O \longrightarrow R + \bigvee_{N} \bigvee_{N} NH \longrightarrow R + \bigvee_{N} OMe$$

$$X = O, S \text{ or } NH$$

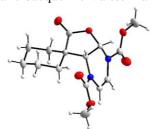
The convenient synthesis of novel tetraaza-pentaphene-5,8-diones is described, in two steps, from anthranilic acid derivatives.



Double nucleophilic addition of bis(trimethylsilyl)ketene acetals to carbon–carbon double bonds of pyrazines: formation of polycyclic γ -lactones

pp 3449-3451

Henri Rudler,* Bernard Denise, Yiming Xu and Jacqueline Vaissermann



Pyrazines react with 1 equiv of bis(TMS)ketene acetals in the presence of 2 equiv of methyl chloroformate to give polycyclic γ -lactones upon a double nucleophilic addition.

A sorbitol-selective fluorescence sensor

pp 3453-3456

K. M. K. Swamy, Yun Jung Jang, Min Sun Park, Hwa Soo Koh, Sang Kil Lee, Yeo Joon Yoon* and Juyoung Yoon*

A new anthracene derivative bearing two phenylboronic acid groups at the 1,8-positions displayed a selective binding with sorbitol.



Practical optical resolution of dl-muscone using tartaric acid derivatives as a chiral auxiliary

pp 3457-3460

Kunihiko Takabe,* Masataka Sugiura, Yuya Asumi, Nobuyuki Mase, Hidemi Yoda and Hiroyasu Shimizu

A simple and practical synthesis of (R)-(-)-muscone was achieved by optical resolution of dl-muscone using tartaric acid derivatives.

The synthesis of unique structures of tetra-crown ethers through Michael addition

pp 3461-3464

Zhi Bin Huang, Tai Jong Kang and Seung Hyun Chang*

New structures of tetra-crown ethers were synthesized from tetramethylolmethane tetraacrylate with 1-aza crown ethers and amino-crown ethers.

Stereoselective synthesis of *cis*- and *trans*-2,3-disubstituted eight-membered medium-ring ethers based on Ireland-Claisen rearrangement of 3-alkoxy-2-propenyl glycolate esters and ring-closing olefin metathesis

pp 3465-3468

Kenshu Fujiwara,* Akiyoshi Goto, Daisuke Sato, Hidetoshi Kawai and Takanori Suzuki

Ionic liquid/water as a recyclable medium for Tsuji-Trost reaction assisted by microwave

pp 3469-3472

Meng-chun Liao, Xin-hua Duan and Yong-min Liang*

An efficient microwave protocol is described for Tsuji-Trost reaction catalyzed by $Pd(OAc)_2/TPPTS$ in an $[EMIm]BF_4/H_2O$ medium. The ionic liquid/water containing catalyst system can be recycled eight times.

Synthesis of N,N'-disubstituted cyclic 1,2-diamines derived from (1R,2R)-1,2-diaminocyclohexane

pp 3473-3478

Ewan Boyd, Gregory S. Coumbarides, Jason Eames,* Ray V. H. Jones, Majid Motevalli, Rachel A. Stenson and Michael J. Suggate

Synthesis and derivatisation of N,N'-trisubstituted 1,2-diamines derived from (1R,2R)-1,2-diaminocyclohexane

pp 3479-3484

Ewan Boyd, Gregory S. Coumbarides, Jason Eames,* Ray V. H. Jones, Rachel A. Stenson and Michael J. Suggate

Microwave-accelerated Fischer glycosylation

pp 3485-3488

Laurent F. Bornaghi* and Sally-Ann Poulsen

N-Acetyl-D-glucosamine,
$$R^1$$
 = NHAc, R^2 = H, R^3 = OH, R^4 = H, N-Acetyl-D-galactosamine, R^1 = NHAc, R^2 = H, R^3 = OH, R^4 = OH, N-Acetyl-D-galactosamine, R^1 = NHAc, R^2 = H, R^3 = H, R^4 = OH, D-Glucose, R^1 = OH, R^2 = H, R^3 = OH, R^4 = H, D-Galactose, R^1 = OH, R^2 = H, R^3 = OH, R^4 = OH, D-Mannose, R^1 = H, R^2 = OH, R^3 = OH, R^4 = H.

Allylation and cyanation of aza-aromatics activated by chloroformate and a catalytic amount of iodine pp 3489–3492 J. S. Yadav,* B. V. S. Reddy, M. Srinivas and K. Sathaiah

$$\begin{array}{c|c} O \\ CI \\ OEt \\ OOEt \\ OOEt \\ \end{array}$$

$$\begin{array}{c|c} I_2/\text{allylsilane} \\ CH_2CI_2,r.t \\ OOEt \\ \end{array}$$

Chiral 5-(diphenylphosphanyl)-1,2,3,4-tetrahydroacridines: new N,P-ligands for asymmetric catalysis Giorgio Chelucci* and Gianmauro Orrù

pp 3493-3496

Potassium exchanged layered zirconium phosphate as catalyst in the preparation of 4H-chromenes

pp 3497-3499

Massimo Curini,* Francesco Epifano, Stefano Chimichi, Francesca Montanari, Morena Nocchetti and Ornelio Rosati*

$$\begin{array}{c} \text{CHO} \\ \text{Rww} \\ \text{OH} \end{array} \xrightarrow{ \begin{array}{c} \text{Cr(KPO_4)_2 (50mg/mmol aldehyde),} \\ \text{CNCH_2CO_2R}^1 \ (2 \ .0 \ \text{equiv),neat, } \ 40^\circ\text{C} \end{array} } \\ \text{Rww} \\ \text{Rww} \\ \text{NC} \\ \text{CO_2R}^1 \\ \text{Rww} \\ \text{OO} \\ \text{NH}_2 \\ \text{OO} \\ \text{OO} \\ \text{NH}_2 \\ \text{OO} \\ \text{OO} \\ \text{NH}_2 \\ \text{OO} \\ \text$$

Substituted 4H-chromenes were easily prepared by reaction of salicylaldehydes and ethylcyanoacetate in solvent free conditions using potassium exchanged layered zirconium phosphate as catalyst.

An efficient procedure for the synthesis of coumarin derivatives using TiCl₄ as catalyst under solvent-free conditions

pp 3501-3503

Hassan Valizadeh* and Abbas Shockravi

OH +
$$EtO_2C$$
 Q R^2 $TiCl_4$ R^1 R^2 R^2

Baeyer-Villiger oxidation of ketones with hydrogen peroxide catalyzed by Sn-palygorskite Ziqiang Lei,* Qinghua Zhang, Jujie Luo and Xiaoyan He

pp 3505-3508

$$R \xrightarrow{O} R' \xrightarrow{Sn-palygorskite} R \xrightarrow{H_2O_2(30\%,1.5eq)} R \xrightarrow{O} O - R$$

Palygorskite-supported Sn complexes were prepared by a simple procedure. Cyclic ketones and acyclic ketones were oxidized by hydrogen peroxide in a reaction catalyzed by palygorskite-supported Sn complexes, affording corresponding lactones or esters with selectivity for the product of 90–100%.

Palladium(II)-catalyzed ring expansion of a 1-alkenyl cyclopentanol

pp 3509-3511

Antonio García Martínez,* Enrique Teso Vilar, Amelia García Fraile, Santiago de la Moya Cerero* and Beatriz Lora Maroto

1,4-Dihydropicolinic acid derivatives: novel NADH analogues with an altered connectivity pattern

pp 3513-3516

Elena Gómez, Miriam Miguel, Oscar Jiménez, Guillermo de la Rosa and Rodolfo Lavilla*



Unexpected formation of new chiral 3-amino-5-alkyl-2,5-dihydro-1H-pyrrolin-2-ones from N-Boc- α -amino esters

pp 3517-3520

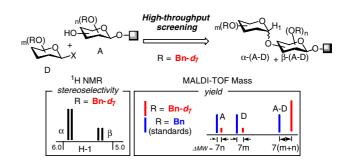
Nicolas Inguimbert,* Hélène Dhôtel, Pascale Coric and Bernard P. Roques

High throughput screening of O-glycosylation conditions

pp 3521-3524

Akihiro Ishiwata and Yukishige Ito*

Rapid and quantitative screening of *O*-glycosylation reactions, using labeled compounds monitored by 1H NMR and MALDI-TOF MS, was developed and applied to the analysis of parallel reaction systems.



Synthesis of a tetra-deuterium-labeled derivative of potent and selective anticancer agent AA005 Hai-Xia Liu and Zhu-Jun Yao^*

pp 3525-3528

A novel intramolecular Diels-Alder cyclization involving indoloazepines

pp 3529-3532

Lianyou Zheng, Tiansheng Wang, Zhonglin Wei, Jinbao Xiang and Xu Bai*

$$N-R$$
 R_1 CHO $N-R$ R_2 R_3 R_3 R_3 R_4 R_3

A novel oxidative degradation pathway of indomethacin under the stressing by hydrogen peroxide

pp 3533-3536

Min Li,* Beth Conrad, Russell G. Maus, Steven M. Pitzenberger, Raju Subramanian, Xueguang Fang, Jeffery A. Kinzer and Holly J. Perpall

Indomethacin
$$Cl$$
 H_2O_2 H_{eat} H_2O_2 H_{eat} H_2O_2 H_{eat} H_2O_2 H_{eat} H_2O_2 H_2O_2

Gymnocin-B with the largest contiguous polyether rings from the red tide dinoflagellate, *Karenia* (formerly *Gymnodinium*) *mikimotoi*

pp 3537-3540

Masayuki Satake,* Yoshihisa Tanaka, Yuki Ishikura, Yasukatsu Oshima, Hideo Naoki and Takeshi Yasumoto

An expedient one-pot entry to catecholestrogens and other catechol compounds via IBX-mediated phenolic oxygenation

pp 3541-3544

Alessandro Pezzella,* Liliana Lista, Alessandra Napolitano and Marco d'Ischia

A highly stereoselective preparation of CF_3 -substituted 1-aryl-1,2-diphenylethenes: application to the synthesis of panomifene pp 3545-3548

Myong Sang Kim and In Howa Jeong*

Facile conversion of 23-hydroxyspirosolane into pregnane

pp 3549-3551

Sayaka Matsushita, Miho Yoshizaki, Yukio Fujiwara, Tsuyoshi Ikeda, Masateru Ono, Tadashi Okawara and Toshihiro Nohara*

Glycosidation via conjugate addition of anomeric alkoxides to nitroalkenes and nitrosoalkenes

pp 3553-3556

Gary Trewartha, Jeremy N. Burrows and Anthony G. M. Barrett*

The conjugate addition of protected pyranose alkoxides to 1-nitro- and 1-nitrosoalkenes gave 2-nitroalkyl and 2-oximinoalkyl glycosides. In several cases, the reaction proceeded with preferential formation of the α -glycoside (α : $\beta \le 4:1$). The methodology was employed in model (L)-rhodinosylation reactions relevant to the total synthesis of lactonamycin.

Remarkably facile Heck and Suzuki reactions in water using a simple cationic surfactant and ligand-free palladium catalysts

pp 3557-3560

Santanu Bhattacharya,* Aasheesh Srivastava and Saumitra Sengupta*

Novel rearrangement of 7-(substituted aminomethyl)-6,7-dihydrooxazolo[2,3-f]purines to 7-(substituted amino)-7,8-dihydro-6*H*-[1,3]oxazino[2,3-f]purines

pp 3561-3563

Marek T. Cegła,* Joanna Potaczek, Marek Żylewski and Lucjan Strekowski

Transesterification of trialkyl phosphates from alkyl bromides

pp 3565-3567

Christian Lherbet, Roselyne Castonguay and Jeffrey W. Keillor*

The treatment of trialkyl phosphate with different alkyl bromides provides facile access to mixed phosphate esters.



Green approach for the conversion of olefins into vic-halohydrins using N-halosuccinimides in ionic liquids

pp 3569-3572

J. S. Yadav,* B. V. S. Reddy, Gakul Baishya, S. J. Harshavardhan, Ch. Janardhana Chary and Manoj Kumar Gupta

Direct synthesis of hetero-biaryl compounds containing an unprotected NH₂ group via Suzuki-Miyaura reaction

pp 3573-3577

Takahiro Itoh* and Toshiaki Mase

Exploiting π -shielding interactions: a highly selective chiral auxiliary derived from a biogenic building block

pp 3579-3582

Longfei Xie and Graham B. Jones*

A highly selective chiral auxiliary, designed on the basis of π -shielding capability has been prepared from readily available L-proline. Cycloaddition diastereoselectivity as high as 99% was attainable using a polymer-metal supported variant.

Oxidative coupling of thiols to disulfides using a solid anhydrous potassium phosphate catalyst

pp 3583-3585

Ashutosh V. Joshi, Sudhakar Bhusare, Mubeen Baidossi, Nida Qafisheh and Yoel Sasson*

2RSH + 1/2O₂(air)
$$\frac{K_3PO_4, 25-37 \text{ °C}}{\text{acetonitrile, 1-2 h}}$$
 RSSR + H₂O
 $\frac{1}{85-92\%}$ 2

where R=Ph, 4-ClC₆H₄, 4-tert butyl-C₆H₄, PhCH₂, cyclohexyl, n-C₅H₁₁, 2-pyridyl

A one-pot synthesis of nitrogen-containing heteroaryl α-keto amides from heteroaryl halides

pp 3587-3589

Juliang Zhu, Henry Wong, Zhongxing Zhang, Zhiwei Yin, John F. Kadow, Nicholas A. Meanwell and Tao Wang*

$$Ar = \text{nitrogen-containing heterocycles}$$

$$Ar = \text{nitrogen-containing heterocycles}$$

$$1) \text{ Base } \\ THF$$

$$CN$$

$$Ar = \text{nitrogen-containing heterocycles}$$



Catalytic transfer hydrogenation reactions of PEG-bound succinyl esters

pp 3591-3593

H. M. Sampath Kumar,* Pawan Chakravarthy, Sanghapal D. Sawant, Parvinder Pal Singh, M. Shesha Rao and J. S. Yadav

TiCl(OⁱPr)₃ and NaBH(OAc)₃: an efficient reagent combination for the reductive amination of aldehydes by electron-deficient amines

pp 3595-3597

Corey D. Gutierrez, Vassilios Bavetsias and Edward McDonald*

OTHER CONTENTS

Corrigendum
Contributors to this issue
Instructions to contributors

pp 3599-3600

p I pp III–VI

*Corresponding author

** Supplementary data available via ScienceDirect

COVER

The number of contiguous ether rings of gymnocin-B is the largest among polyether compounds hitherto known. The complementary use of FAB CID MS/MS by choosing the lithiated molecular ion was highly effective to confirm the complex structure. *Tetrahedron Letters* **2005**, *46*, 3537–3540.

© 2005 M. Satake. Published by Elsevier Ltd.

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

