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Contents

COMMUNICATIONS

Solid-phase synthesis of liquid crystalline isoxazole library

Takeharu Haino, Masahiro Tanaka, Keiko Ideta, Kanji Kubo, Akira Mori and Yoshimasa Fukazawa*



Liquid crystalline isoxazole library has been synthesized by 1,3-dipolar cycloaddition reaction on solidsupport. The liquid crystalline materials found in the library exhibit nematic and smectic A phases.

Calix[4]arene-based ditopic receptor for dicarboxylates

Takeharu Haino, Masaki Nakamura, Nobuki Kato, Miki Hiraoka and Yoshimasa Fukazawa*



The calix[4]arene-based synthetic receptor was developed. The selective binding of dicarboxylates is observed even in DMSO. Biologically important chorismate dianion was selectively complexed over its dehydrated derivative.

Indium-mediated mild and facile method for the synthesis of amides Dae Hyan Cho and Doo Ok Jang* pp 2285-2287

$$R-COCI + R'NH_2 \xrightarrow{In} R-CONHR'$$

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Vitamin D: a concise synthesis of the C_{19} hydroxylated enyne A-ring, an interesting precursor for the pp 2289–2292 preparation of C_{19} substituted vitamin D analogues

Raphaël Rodriguez, Cyril Ollivier* and Maurice Santelli*



A novel and direct synthesis of chroman derivatives using a hypervalent iodine(III) reagent Hiromi Hamamoto, Kayoko Hata, Hisanori Nambu, Yukiko Shiozaki,

Hirofumi Tohma and Yasuyuki Kita*



Basic alumina catalysed synthesis of substituted 2-amino-2-chromenes via three-component reactionpp 2297–2299Raimondo Maggi,* Roberto Ballini, Giovanni Sartori and Raffaella SartorioPatroni



2-Amino-2-chromenes were obtained in excellent yield and selectivity simply by mixing malononitrile, α -naphthol and aromatic aldehydes in water in the presence of basic alumina as reusable catalyst.

Isolation, absolute configuration, and chiral crystallization of optically active seleninic acid Yusuke Nakashima, Toshio Shimizu, Kazunori Hirabayashi, Nobumasa Kamigata,* Masanori Yasui, Masaki Nakazato and Fujiko Iwasaki



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Palladium mediated stereospecific synthesis of 3-enynyl substituted thioflavones/flavones Manojit Pal,* Karuppasamy Parasuraman, Venkataraman Subramanian, Rambabu Dakarapu and Koteswar Rao Yeleswarapu*



Sequential palladium catalysis is utilized for the stereocontrolled synthesis of enynes in a simple synthetic operation.

Amino acid-mediated Goldberg reactions between amides and aryl iodides Wei Deng, Ye-Feng Wang, Yan Zou, Lei Liu* and Qing-Xiang Guo* pp 2311-2315



Synthesis of functionalized 7-azaindoles via directed *ortho*-metalations Alexandre L'Heureux,* Carl Thibault and Réjean Ruel



One-pot syntheses of 6-mercaptopurines (6MP) from 4,5-diamino-6-chloro-pyrimidines Sagun Tandel, Igor Bliznets, Katalin Ebinger, You-An Ma, Dilip Bhumralkar and Mohan Thiruvazhi*



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@+

Highly efficient synthesis of medium-sized lactams via intramolecular Staudinger-aza-Wittig reaction of ω -azido pentafluorophenyl ester: synthesis and biological evaluation of LY411575 analogues

Haruhiko Fuwa,* Yumiko Okamura, Yuichi Morohashi, Taisuke Tomita, Takeshi Iwatsubo, Toshiyuki Kan, Tohru Fukuyama and Hideaki Natsugari*



Enantioselective construction of biaryl part in the synthesis of stegane related compounds Hitoshi Abe,* Shigemitsu Takeda, Takuro Fujita, Keisuke Nishioka, Yasuo Takeuchi and

Takashi Harayama*



Indium-mediated radical cyclization of iodoalkenes and iodoalkynes with and without allylic and propargylic leaving groups

Reiko Yanada,* Shingo Obika, Nobuaki Nishimori, Masashige Yamauchi and Yoshiji Takemoto*



Convenient switching of 7-endol6-exo radical cyclization Akio Kamimura* and Yohei Taguchi



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Yttrium triflate as an efficient and useful catalyst for chemoselective protection of carbonyl compounds pp 2339–2341 Surya Kanta De*



Functionalization of dihydrodipyridopyrazines involving palladium-catalyzed coupling reactions

Irina-Claudia Grig-Alexa, Adriana-Luminita Finaru, Lucia Ivan, Paul Caubère and Gérald Guillaumet*



A new approach to N-protected staurosporinones

Maria M. M. Santos, Ana M. Lobo,* Sundaresan Prabhakar* and M. Manuel B. Marques



A completely regioselective synthesis of glycosidic acceptors for indolopyrrolo[2,3-a]carbazole alkaloids is reported.

A novel catalyzed C–H insertion reactions of hydrogen peroxide by poly(4-vinylpyridine)/methyltrioxorhenium systems

Gianluca Bianchini, Marcello Crucianelli,* Francesco De Angelis, Veronica Neri and Raffaele Saladino*



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An efficient approach to D-threo-3-hydroxyaspartic acid for the synthesis of novel L-threo-oxazolines as pp 2355–2357 selective blockers of glutamate reversed uptake

Meri De Angelis and Giuseppe Campiani*



An efficient, stereoselective synthetic strategy to D-threo-3-hydroxyaspartic acid was developed. Starting from D-threo-3-hydroxyaspartic acid, L-threo-oxazolines can be stereoselectively synthesized.

Studies on the stability of the cyclobutane β -aminoacid skeleton: a cautionary tale David J. Aitken,^{*} Christine Gauzy and Elisabeth Pereira

pp 2359-2361



A novel route to functionalized PFP esters via rapid intermolecular radical addition to PFP acrylate mediated by ethylpiperidinium hypophosphite (EPHP)

pp 2363–2366

pp 2367-2370

Stephen Caddick,* Daniel Hamza, Duncan B. Judd, Melanie T. Reich, Sjoerd N. Wadman and Jonathan D. Wilden

$$\begin{array}{c} 0 \\ PFPO \end{array} \xrightarrow{\begin{array}{c} R^{1}-I, DCM \\ 0^{\circ}C, EPHP \end{array}} \begin{array}{c} 0 \\ PFPO \end{array} \xrightarrow{\begin{array}{c} R^{2}R^{3}NH \\ Et_{3}N, DCM \end{array}} \begin{array}{c} R^{2} \\ R^{2} \\ R^{3} \\ R^{3} \end{array}$$

Pentafluorophenyl (PFP) acrylate, a stable compact bifunctional scaffold undergoes rapid *N*-ethylpiperidinium hypophosphite (EPHP) mediated radical addition to yield a variety of active esters susceptible to further functionalization by aminolysis.

Rhodium(I)-catalyzed regioselective additions of chloroformates to 1,2-dienes Ruimao Hua and Masato Tanaka*



Alkoxyacetyl (AAc) group as a useful linker for organic synthesis on poly(ethylene glycol) supportpp 2371–2375Masato Oikawa,* Minoru Ikoma and Makoto Sasakipr 2371–2375



An alkoxyacetyl group (AAc) group was found to be an efficient linker for high-throughput synthesis of small molecules on a soluble polymer support. The preparation, protocols for loading and releasing of small molecules, and an application to the Ugi four-component coupling reaction are reported.

Captodative olefins: methyl 2-aryloxy-3-dimethylaminopropenoates and their application in a new pp 2377–2380 synthesis of benzofurans

María del Carmen Cruz and Joaquín Tamariz*



Synthesis of *C*-glycosyl β-amino acids by asymmetric Mannich-type three-component reactions Alessandro Dondoni,* Alessandro Massi, Simona Sabbatini and Valerio Bertolasi pp 2381-2384



Construction of a new asymmetric reaction site: asymmetric 1,4-addition of thiol using pentagonal pp 2385–2388 bipyramidal Hf(salen) complex as catalyst

Kazuhiro Matsumoto, Akira Watanabe, Tatsuya Uchida, Kayoko Ogi and Tsutomu Katsuki*

Seven-coordinate Hf(salen) complex can be used as catalyst for asymmetric 1,4-addition of thiol.

Synthesis and functionalisation of 1H-pyrazolo[3,4-b]pyridines involving copper and palladium-promoted coupling reactions G. Lavecchia, S. Berteina-Raboin and G. Guillaumet*



Synthesis and structural study of [2.n](2,5)pyridinophanes

Takashi Funaki, Seiichi Inokuma, Hayato Ide, Tomomi Yonekura, Yosuke Nakamura and Jun Nishimura*



Ēh

cis: 99% ee



pp 2399-2402

pp 2403-2404

Рń or

(P):99% ee

(M): 99% ee

Synthesis of a novel silicon bearing linker for solid phase synthesis Robert Ramage,* Martin J. I. Andrews, Jenny Raphy and Pu Wang

bis(oxazoline)

R= Substrate

The synthesis of a novel fluoride cleavable linker is described.

Ph

X = S, Se



hv (Pvrex) Acetonitrile

Ph,,

XPh

trans: 99% ee

n=4-8

pp 2389-2392

pp 2393-2397

Studies on uracils: a facile one-pot synthesis of oxazino[4,5-d]-, pyrano[2,3-d]-, pyrido[2,3-d]- and pyrimido[4,5-d]pyrimidines using microwave irradiation in the solid state

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Ipsita Devi, Harsha N. Borah and Pulak J. Bhuyan*



Triple nucleophilic additions of (trimethylsilyl)ketene acetals to tropylium derivatives: access to the pp 2409-2411 core nuclei of xanthanolides

Henri Rudler,* Cecilio Alvarez, Andrée Parlier, Eugenia Perez, Bernard Denise, Yiming Xu and Jacqueline Vaissermann



Tropylium tetrafluoroborate reacts sequentially with 2 equiv of (trimethylsilyl)ketene acetals to give 5,7-fused γ -lactones via $Cr(CO)_3$ triene complexes.

CAN mediated cyclization of epoxypropyl cinnamyl ethers: a facile stereoselective synthesis of tetrahydropyran derivatives

Vijay Nair,* Lakshmi Balagopal, Roshini Rajan, Ani Deepthi, Kishor Mohanan and Nigam P. Rath



i) CAN (0.5 eq.), dry CH₃CN, argon, RT, 16 h

Cerium(IV) ammonium nitrate in substoichiometric amounts, promotes the intramolecular cyclization of epoxypropyl cinnamyl ethers to the corresponding 3,4,5-trisubstituted tetrahydropyran derivatives in moderate to good yields.

Metalation of α -diazocarbonyl compounds using Grignard reagents. A convenient synthesis of α -diazopp 2417-2419 β -ketoesters and mixed esters of α -diazomalonate

Erick Cuevas-Yañez,* Joseph M. Muchowski and Raymundo Cruz-Almanza

 $\begin{array}{c} O \\ R \\ & \\ N_2 \end{array} + CH_3MgBr \xrightarrow{THF} O \\ -78 \ ^\circ C \end{array} \qquad \begin{array}{c} O \\ R \\ & \\ N_2 \end{array}$ $\xrightarrow{\text{CICO}_2 \mathsf{R}'} \mathsf{R} \xrightarrow{\downarrow}_{\mathsf{N}_2} \mathsf{CO}_2 \mathsf{R}'$

pp 2413-2416

Pd/CaCO₃ in liquid poly(ethylene glycol) (PEG): an easy and efficient recycle system for partial reduction of alkynes to *cis*-olefins under a hydrogen atmosphere

S. Chandrasekhar,* Ch. Narsihmulu, G. Chandrashekar and T. Shyamsunder

$$R - R' = R' - \frac{Pd/CaCO_3 (0.5 \text{ mol}\%)}{H_2, 1 \text{ atm, quinoline}} R$$

$$R, R' = alkyl, aryl r.t., PEG (400)$$

Lindlar's catalyst (Pd/CaCO₃) in PEG (400) has been found to be the most reusable reaction medium for selective reduction of alkynes to cis-olefins. The catalyst and PEG were recycled five times without loss of activity.

Convenient and efficient stereoselective synthesis of (2Z)-2-(chloromethyl)alk-2-enoates using iron(III) pp 2425-2426 or indium(III) chloride

Biswanath Das,* Joydeep Banerjee, Nasi Ravindranath and Bollu Venkataiah



Selective preparation of 1,3-butadienvl phosphines, 1-iodo- and 1,4-diiodo-butadienvl phosphine oxides via zirconocene-mediated cross-coupling of alkynylphosphines Zhenfeng Xi,* Wenxiong Zhang and Tamotsu Takahashi*



2,3-Disubstituted pyrrolo[2,3-b]quinoxalines via aminopalladation-reductive elimination Antonio Arcadi, Sandro Cacchi,* Giancarlo Fabrizi and Luca M. Parisi



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Efficient synthesis of chlorohydrins: ionic liquid promoted ring-opening reaction of epoxides and TMSCl

pp 2435-2438

Li-Wen Xu, Lyi Li, Chun-Gu Xia* and Pei-Qing Zhao

$$\begin{array}{c} O \\ R_1 \\ R_2 \\ \end{array} \begin{array}{c} TMSCI \\ bmimPF_6/rt \\ \end{array} \begin{array}{c} HO \\ R_1 \\ R_1 \\ \end{array} \begin{array}{c} R_2 \\ R_1 \\ \end{array}$$

Sequential aldol condensation catalyzed by DERA mutant Ser238Asp and a formal total synthesis pp 2439–2441 of atorvastatin

Junjie Liu, Che-Chang Hsu and Chi-Huey Wong*



Three-component coupling of aldehyde, alkyne, and amine catalyzed by silver in ionic liquidpp 2443–2446Zigang Li, Chunmei Wei, Liang Chen, Rajender S. Varma and Chao-Jun Li*pr 2443–2446



Immobilization of the Grubbs second-generation ruthenium-carbene complex on poly(ethylene glycol): pp 2447–2451 a highly reactive and recyclable catalyst for ring-closing and cross-metathesis Qingwei Yao* and Adalie Rodriguez Motta



used for up to 17 cycles with > 94% conversion in RCM reactions; highly reactive and recyclable in CM reactions.

A convenient one-pot synthesis of 2 β -(O-dibenzyl-phosphate)-oxymethyl-2 α -methyl penam 3α -carboxylic acid benzyl ester and 3β -(O-dibenzyl-phosphate)- 3α -methyl cepham 4α -carboxylic acid benzyl ester

Patricia V. Yovaldi, María de los Angeles Laborde and Oreste A. Mascaretti*

The title compounds whose synthesis is described were selected to have the bicyclic β -lactam scaffold and a phosphate triester functionality that can mimic the transition state implicated during the nucleophilic attack of hydroxide ion from the active site of mono- or binuclear-Zn(II)- β -lactamase to the β -lactam carbonyl group.



David A. Berry,* Kee-Yong Jung, Dean S. Wise, Anthony D. Sercel, William H. Pearson, Hugh Mackie, John B. Randolph and Robert L. Somers

New pentacyclic polyketide dimeric peroxides from a Taiwanese marine sponge *Petrosia elastica* Ya Ching Shen,* Chaturvedula V. Sai Prakash and Jih-Hwa Guh

NCCH₂CH₂O(iPr₂N)P

DMTO

X=H X=OCH₂OSi(iPr)₃

> 1 R = CH₃ 2 R = CH₂CH₃



Two novel pentacyclic polyketide dimers, dihalenaquinolides—A (1) and B (2), have been isolated from the marine sponge *Petrosia elastica*

Synthesis of non-proteinogenic phenylalanine analogues by Suzuki cross-coupling of a serine-derived pp 2467–2471 alkyl boronic acid

Joanne E. Harvey, Martin N. Kenworthy and Richard J. K. Taylor*





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pp 2463-2466

 $\begin{array}{c} R-S-P_{Y}^{O} \xrightarrow{} & \xrightarrow{F^{-}} R-S(CH_{2})_{n}X + F_{Y}^{O} \xrightarrow{} \\ R = sugar & n = 1, 2; X = Cl, Br; Y = S, O \end{array}$

OTHER CONTENTS

Contributors to this issue Instructions to contributors

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*Corresponding author (*P*⁺ Supplementary data available via ScienceDirect

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