

Tetrahedron Letters Vol. 49, No. 8, 2008

Contents

COMMUNICATIONS

Synthesis and conformational analysis of benzimidazole-based reverse turn mimics Giordano Lesma, Alessandro Sacchetti *, Alessandra Silvani

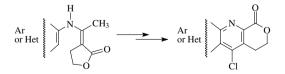
New benzimidazole-based tetrapeptide mimics were synthesized and their conformational features were studied by NMR and molecular modeling techniques. All the analyses led to the conclusion that a β -turn is stabilized in both 2 and 3.

A modified reaction for the preparation of amidoalkyl naphthols Hamid Reza Shaterian *, Hossein Yarahmadi



Method B: CH_3CONH_2 (Thermal Solvent-Free conditions)

An efficient route to a 5,6-dihydropyrano[3,4-b]pyridin-8-one core in two steps from enaminolactonespp 1301Cheikh Sall, Nicolas Desbois, Sandrine Paquelet, José R. Camacho, Jean Michel Chezal,
Jean-Claude Teulade, Yves Blache *



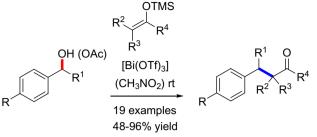
pp 1293–1296

pp 1297-1300

pp 1301-1304

Chemo- and diastereoselective Bi(OTf)₃-catalyzed benzylation of silyl nucleophiles

Philipp Rubenbauer, Thorsten Bach *



Electron rich (R = MeO, Me) benzylic alcohols or acetates serve as electrophilic reaction partners in the Bi(III)-catalyzed reaction with silyl enol ethers or hydrosilanes.

Silylation of silanols with vinylsilanes catalyzed by a ruthenium complex Bogdan Marciniec^{*}, Piotr Pawluć, Grzegorz Hreczycho, Anna Macina, Martyna Madalska pp 1310-1313

pp 1314-1318

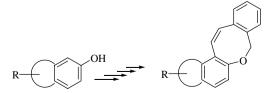
$$R'_{3}SiO_{+}H + \swarrow SiR_{3} \xrightarrow{[Ru-H]} R'_{3}Si-O-SiR_{3}$$

R,R' = alkyl, aryl, siloxy, alkoxy

Cyanuryl peptide nucleic acid: synthesis and DNA complexation properties Raman Vysabhattar, K. N. Ganesh *

Novel synthesis of oxocine derivatives by Wittig olefination and intramolecular Heck reaction via 8-endo trig pp 1319–1322 cyclization

K. C. Majumdar *, B. Chattopadhyay, B. Sinha

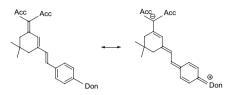


pp 1305-1309



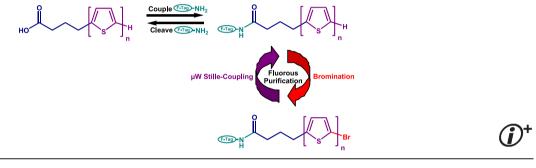
Quantification of the push-pull character of the isophorone chromophore as a measure of molecular hyperpolarizability for NLO applications

Erich Kleinpeter *, Andreas Koch, Bozhana Mikhova, Bistra A. Stamboliyska, Tsonko M. Kolev



Microwave synthesis and fluorous purification of 4-(tetrathienyl)butyric acid for self-assembled monolayer pp 1328–1330 semiconductor applications

Mark C. McCairn, Fan Huang, Michael L. Turner *

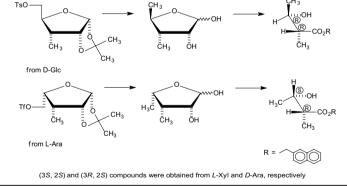


Carbohydrate-based approach to four enantiomerically pure 2-naphthylmethyl 3-hydroxy-2methylbutanoates

pp 1331-1335

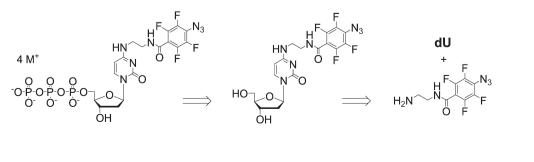
Bogdan Doboszewski, Piet Herdewijn *

The synthesis of the four stereoisomers of 3-hydroxy-2-methylbutanoic acid from carbohydrate precursors is described.



exo-N-[2-(4-Azido-2,3,5,6-tetrafluorobenzamido)ethyl]-dC: a novel intermediate in the synthesis of dCTP pp 1336–1339 derivatives for photoaffinity labelling

Crina Cismaş, Thanasis Gimisis *

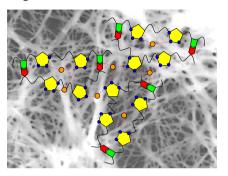


pp 1323-1327

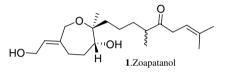
Polymer thermoreversible gels from organogelators enabled by 'click' chemistry

David Díaz Díaz *, José Juan Marrero Tellado, Daniel García Velázquez, Ángel Gutiérrez Ravelo

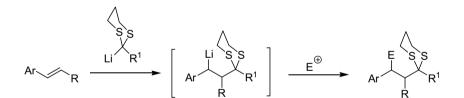
[1,2,3]-Triazole-based polymers made by means of the copper(I)catalyzed azide-alkyne [3+2] cycloaddition (CuAAC) exhibit selective gelling ability for DMSO and organic solvent mixtures containing at least 80% DMSO by volume. The organogels were characterized by FT-IR, DSC, TEM, and rheology.



Synthetic studies toward zoapatanol Isela García, Manuel Pérez, Pedro Besada, Generosa Gómez *, Yagamare Fall *

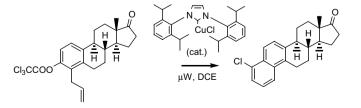


Carbolithiation of substituted stilbenes and styrenes with dithianyllithiums Shouchu Tang, Junjie Han, Jinmei He, Jiyue Zheng, Yongping He, Xinfu Pan, Xuegong She *



New reactivity patterns of copper(I) and other transition metal NHC complexes: application to ATRC and pp 1352–1356 related reactions

James A. Bull, Michael G. Hutchings, Cristina Luján, Peter Quayle *



Transition metal-NHC complexes are effective catalysts for the promotion of ATRC reactions

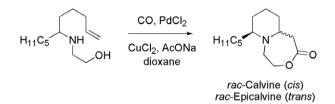
pp 1344-1347

pp 1340-1343

pp 1348-1351

Short racemic syntheses of calvine and epicalvine Pater Szalosányi * Tibor Gragga Iyan Špánik

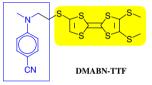
Peter Szolcsányi *, Tibor Gracza, Ivan Špánik



The ladybird beetle alkaloids calvine and epicalvine were prepared in racemic form in 26% combined overall yield over four steps starting from hexanal and pentenyl bromide.

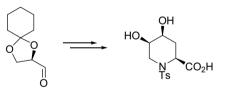
A new 4-(*N*,*N*-dimethylamino)benzonitrile (DMABN) derivative with tetrathiafulvalene unit: modulation of pp 1361–1364 the dual fluorescence of DMABN by redox reaction of tetrathiafulvalene unit

Wei Tan, Deqing Zhang *, Hui Wu, Daoben Zhu *



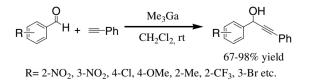
The dual fluorescence behavior of a new derivative of 4-(N,N-dimethylamino)benzonitrile (DMABN) with TTF unit can be modulated by reversible oxidation and reduction of TTF unit.

Complementary routes to both enantiomers of pipecolic acid and 4,5-dihydroxypipecolic acid derivatives pp 1365–1369 Shital K. Chattopadhyay *, Titas Biswas, Tanmoy Biswas



Me₃Ga-mediated alkynylation of aldehydes

Xuefeng Jia, Hongwei Yang, Ling Fang, Chengjian Zhu *



pp 1370-1372

pp 1357-1360

A mild method for cleavage of N-Tos protected amines using mischmetal and $TiCl_4$ Eerold Vellemäe, Oleg Lebedev, Uno Mäeorg *

MM/TICL reflux in dry THF $R^1 = p - CH_3O - C_6H_4$, n-Bu, Ph, Ph-NH, Ph-CH₂, p-MeO - C_6H_4 - CH₂ - CH₂, L-Pro $R^2 = H$, Boc, Troc, Me, *n*-Bu

Total synthesis of A-315675 based on the cascade Overman rearrangement

Takayuki Momose, Naoto Hama, Chiharu Higashino, Hideyuki Sato, Noritaka Chida *

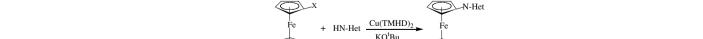
The chiral and stereoselective total synthesis of A-315675 1, an antiinfluenza agent, is described. The vicinal diamino moiety in 1 was constructed in a one-step reaction by the cascade sequential Overman rearrangement of a vicinal allylichomoallylic diol derived from D-tartrate.

Highly efficient polymer supported phase-transfer catalysts containing hydrogen bond inducing functional pp 1380-1383 groups

Qinghua Shi, Yeon-Ju Lee, Mi-Jeong Kim, Mi-Kyung Park, Kyoungyim Lee, Hongrui Song, Maosheng Cheng, Byeong-Seon Jeong, Hyeung-geun Park *, Sang-sup Jew *

Copper bis(2,2,6,6-tetramethyl-3,5-heptanedionate) catalyzed synthesis of N-substituted ferrocenes Vishal H. Purecha, Nitin S. Nandurkar, Bhalchandra M. Bhanage, Jayashree M. Nagarkar

X = I, Br

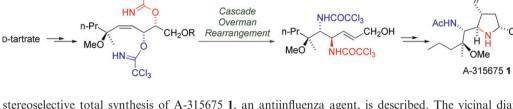


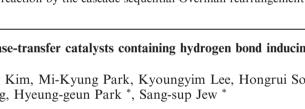
An efficient catalytic protocol for the Ulmann-type coupling reaction of both bromo and iodoferrocene with heterocyclic amines using a stable and well defined copper bis(2,2,6,6-tetramethyl-3,5-heptanedionate) complex has been developed.

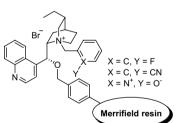
HN-Het = indoles, pyrazole, pyrrole,

imidazole, benimidazole, triazole

pp 1384-1387





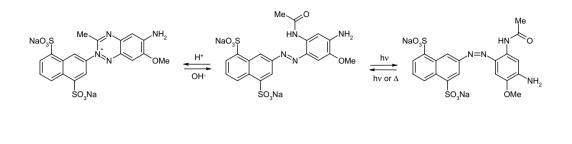


pp 1376-1379

pp 1373-1375

pp 1388-1392

Reversible cyclisation of a sulfonated arylazo compound containing an *o***-acetylamino substituent** David I. Gibson, John A. Parkinson *, Anita C. Jones, Warren J. Ebenezer, Michael G. Hutchings

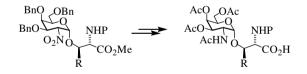


An approach to the synthesis of furanoheliangolides through Diels–Alder reactions Mauricio Gomes Constantino *, Valquiria Aragão, Gil Valdo José da Silva

CO₂CH₃ CO₂CH₃ 5 steps

In this Letter we describe an approach involving two Diels-Alder reactions as key steps to build the bicyclic ring system.

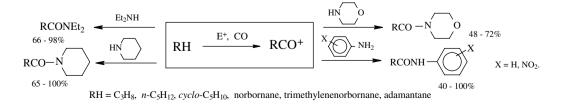
Methyl esters: an alternative protecting group for the synthesis of *O*-glycosyl amino acid building blocks pp 1396–1398 Carlos Mayato, Rosa L. Dorta *, Jesús T. Vázquez *



 $X = CO_2CH_3$ or X, X

The first one-pot amidation of alkanes and cycloalkanes

Irena S. Akhrem *, Dzul'etta V. Avetisyan, Lyudmila Afanas'eva, Sergei V. Vitt, Pavel V. Petrovskii, Alexander Orlinkov



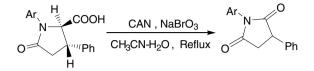
pp 1393-1395



pp 1399-1404

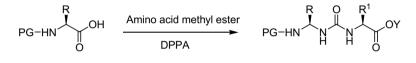
A novel synthetic approach towards N-phenylsuccinimides from γ -lactam-2-carboxylic acid derivatives by pp 1405–1407 reaction with CAN–NaBrO₃

Gopa Barman, Mahuya Roy, Jayanta. K. Ray *



A facile and one-pot synthesis of N^{α} -Fmoc/Bsmoc/Boc/Z-protected ureidopeptides and peptidyl ureas pp 1408–1412 employing diphenylphosphoryl azide [DPPA]

Vommina V. Sureshbabu *, G. Chennakrishnareddy, N. Narendra

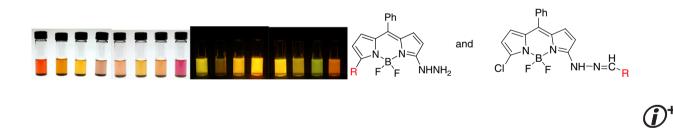


PG = Fmoc, Bsmoc, Boc, Z

The synthesis of *N*-urethane protected α -peptidyl ureas has been accomplished in a single pot employing DPPA as an azide transfer reagent.

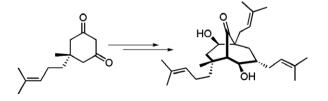
Synthesis of boron dipyrromethene fluorescent probes for bioorthogonal labeling Özlem Dilek, Susan L. Bane *

pp 1413-1416



A concise approach towards the bicyclo[3.3.1]nonan-9-one core present in the phloroglucin natural product pp 1417–1420 hyperforin

Goverdhan Mehta *, Mrinal K. Bera



Evidence from current-density mapping for σ -delocalisation in the aromatic hexaiodobenzene cation Remco W. A. Havenith, Patrick W. Fowler *, Stijn Fias, Patrick Bultinck

Thiourea catalysis of NCS in the synthesis of chlorohydrins

Paul A. Bentley *, Yujiang Mei, Juan Du

Thiourea catalysis of reactions utilizing *N*-succinimides is demonstrated with NCS chlorination of olefins in the presence of water causing a significant increase in the reaction rate and yield of the chlorohydrin.

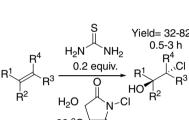
The Baeyer strain is strongly affected by the nucleus-electron attraction—a comment on the Letter of G. Hohlneicher and L. Packschies [Tetrahedron Lett. 2007, 48, 6429–6433]

Danijela Barić, Zvonimir B. Maksić *

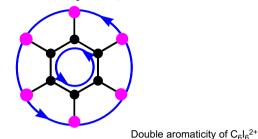
*Corresponding author (*J*⁺ Supplementary data available via ScienceDirect

Abstracted/indexed 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. Also covered in the abstract and citation database SCOPUS[®]. Full text available on ScienceDirect[®]





A high σ -delocalisation, accompanied by a four-electron σ -ring current, in the iodine periphery of the hexaiodobenzene cation provides

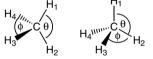


direct evidence for σ -aromaticity co-existing with the conventional π -aromaticity of the benzene ring.



1291

pp 1425–1427



pp 1428-1431