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Concepción Álvarez, Rafael Peláez* and Manuel Medarde*



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Expeditious biomimetically-inspired approaches to racemic homocitric acid lactone and per-homocitrate

Hong-Bin Chen, Ling-Yan Chen, Pei-Qiang Huang,* Hong-Kui Zhang, Zhao-Hui Zhou and Khi-Rui Tsai



Convenient synthesis of fluorinated quinoline, 1,2-dihydroquinoline, and 1,2,3,4-tetrahydroquinoline pp 2153–2160 derivatives

Hikaru Yanai, Hideyuki Mimura, Kosuke Kawada and Takeo Taguchi*



Solid-phase synthesis of core 3 and core 6 *O*-glycan-linked glycopeptides by benzyl-protection method pp 2161–2169 Yuko Nakahara, Chinatsu Ozawa, Eriko Tanaka, Kazuki Ohtsuka, Yutaka Takano, Hironobu Hojo* and Yoshiaki Nakahara*

Benzyl- and benzylidene-protected trisaccharide-Ser/Thr derivatives of core 3 and core 6 *O*-glycans were synthesized as the building blocks suitable for the solid-phase synthesis. Syntheses of MUC2 and MUC6 glycopeptides were demonstrated.



Fmoc-Pro-Thr-Thr-Thr-Pro-lle-Thr-Thr-Thr-Thr-Thr-Val-Thr-Pro-Thr-Pro-Thr-Pro-Thr-Gly-Thr-Gln-Thr-NH₂

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Fmoc-Thr-Ser-Thr-Pro-Val-Ala-His-Thr-Thr-Leu-Ala-Thr-Ser-Ser-Arg-NH2

Synthesis of biantennary LacNAc-linked *O*-glycan (core 4) and glycopeptide thioester by benzyl protection strategy: rapid zinc reduction of GlcNTCA to GlcNAc by microwave irradiation Akiharu Ueki, Yuko Nakahara, Hironobu Hojo^{*} and Yoshiaki Nakahara^{*}



Synthesis of sterically congested bicyclic tetrahydrofurans via Pd-catalyzed cyclization Chul Shin, Youna Oh, Joo Hwan Cha, Ae Nim Pae, Hyunah Choo* and Yong Seo Cho* pp 2182-2190



Prins-type cyclization followed by palladium-catalyzed cyclization provides a very good methodology for the synthesis of various sterically congested bicyclic tetrahydrofurans, which are very stereoselective as well.

Theoretical study of the walk rearrangement in perfluorotetramethyl (Dewar thiophene) *exo-S***-oxide** pp 2191–2198 Jesús Rodríguez-Otero,* Enrique M. Cabaleiro-Lago and Ángeles Peña-Gallego



The mechanism of this *walk rearrangement* was theoretically studied. The definition of *pseudopericyclic* reaction was based on the experimental behavior of this compound, which undergoes an extraordinarily facile automerization.

Towards a biomimetic poly-aminoketone foldamer: synthesis of a triply protected monomer and pp 2199–2207 its coupling to a dimer, trimer and tetramer

Romain Barbe and Jens Hasserodt*

$$\overset{O}{\longmapsto} OH \longrightarrow FmocN \overset{O}{\bigcirc} O \overset{N}{\bigcirc} O \overset{N}{\bigcirc} O \overset{N}{\bigcirc} O \overset{N}{\bigcirc} O \overset{N}{\bigcirc} O \overset{N}{\bigcirc} O \overset{O}{\bigcirc} O \overset{N}{\bigcirc} O \overset{O}{\bigcirc} O \overset{N}{\bigcirc} O \overset{O}{\bigcirc} O \overset{N}{\bigcirc} O \overset{O}{\bigcirc} O \overset{N}{\frown} O \overset{O}{\bigcirc} O \overset{N}{\frown} O \overset{O}{\frown} O \overset{O}{\bullet} O \overset{O}{$$

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The solvolysis of benzoyl halides as a chemical probe determining the polarity of the cavity of dimethyl-β-cyclodextrin

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L. García-Río,* R. W. Hall, J. C. Mejuto and P. Rodriguez-Dafonte



Synthesis of new 3-arylindole-2-carboxylates using β , β -diaryldehydroamino acids as building blocks. pp 2215–2222 Fluorescence studies

Maria-João R. P. Queiroz,* Ana S. Abreu, Elisabete M. S. Castanheira and Paula M. T. Ferreira



Synthesis of N^{α} -Z, N^{β} -Fmoc or Boc protected α -hydrazinoacids and study of the coupling reaction pp 2223–2234 in solution of N^{α} -Z- α -hydrazinoesters

Isabelle Bouillon, Nicolas Brosse, Régis Vanderesse and Brigitte Jamart-Grégoire*



A convenient synthesis of 2-C-methyl-D-erythritol 4-phosphate and isotopomers of its precursor pp 2 Alexandros E. Koumbis,* Stefanos S. Kotoulas and John K. Gallos

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A new synthetic approach toward 2-C-methyl-D-erythritol 4-phosphate (MEP), a key intermediate in the mevalonate-independent biosynthetic pathway for isoprenoids, and deuterated analogues of its precursor, 2-C-methyl-D-erythritol acetonide, is described. This procedure uses 2-C-methyl-D-erythrose acetonide as starting material and delivers, through a mono-protection strategy, the target compounds in a short way and in high yield.

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Synthesis of the dibenzopyrrocoline alkaloid skeleton: indolo[2,1-*a*]isoquinolines and related analogues

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(R)-/(S)-a-MeSpd





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Huiling Jiang, Weimin Yue, Huihong Xiao and Shizheng Zhu*



1,3-Dipolar cycloaddition reaction of trifluoromethyl substituted α , β -unsaturated ketone with nitrile oxides was examined and a series of bicycloaddition products were obtained.

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Conjugate addition of aromatic amines to ethenetricarboxylates

Shoko Yamazaki,* Machiko Yamamoto and Akiko Sumi



The reaction of ethenetricarboxylates 1 and aromatic amines with and without catalytic Lewis acids gave amine adducts or aromatic substitution products, depending on the conditions.

The marine sponge *Plakortis zyggompha***: a source of original bioactive polyketides** Fabrice Berrue, Olivier P. Thomas,* Remi Laville, Soizic Prado, Jerôme Golebiowski, Rogelio Fernandez and Philippe Amade*



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I. S. Marcos,* N. García, M. J. Sexmero, F. A. Hernández, M. A. Escola, P. Basabe, D. Díez and J. G. Urones



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(*D*⁺ Supplementary data available via ScienceDirect



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