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Synthesis of enantiopure, axially chiral, C^{α} -tetrasubstituted α -amino acids with binaphthyl-based crowned pp 2307–2320 side chains and 3D-structural analysis of their peptides

Karen Wright*, Jean-François Lohier, Michel Wakselman, Jean-Paul Mazaleyrat, Fernando Formaggio, Cristina Peggion, Marta De Zotti, Claudio Toniolo*

Both pairs of isomers (R)/(S)-Bip[(R)/(S)-Binol-22-C-6] of a new, only axially chiral, C^{α} -tetrasubstituted α -amino acid with binaphthyl-based crowned side chains, have been synthesized and resolved in an enantiopure state. Two series of terminally protected model peptides to the hexamer level, containing the (R)-Bip[(S)-Binol-22-C-6] residue at i and i+3 positions of the sequence, combined with L-Ala or L-Ala/Aib, were synthesized by solution methods. Their 3D-structural analysis by FTIR absorption and NMR suggests that they preferentially adopt folded secondary structures.

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Cyclisation reactions of 2-substituted benzoylphosphonates with trialkyl phosphites via nucleophilic attack pp 2329–2338 on a carbonyl-containing *ortho* substituent

Yuen-Ki Cheong, Philip Duncanson, D. Vaughan Griffiths*

$$\begin{array}{c|c}
O & R \\
P(OMe)_2 & (MeO)_3P \\
O & P(OMe)_2
\end{array}$$

$$\begin{array}{c|c}
O - C, R \\
O & O \\
P(OMe)_2
\end{array}$$

$$\begin{array}{c|c}
O - C, R \\
O & O \\
P(OMe)_3PO
\end{array}$$

$$\begin{array}{c|c}
O - C, R \\
O & O \\
P(OMe)_2
\end{array}$$

$$\begin{array}{c|c}
O - C, R \\
O & O \\
P(OMe)_3PO
\end{array}$$

$$\begin{array}{c|c}
O - C, R \\
O & O \\
P(OMe)_2
\end{array}$$

$$\begin{array}{c|c}
O - C, R \\
O - C, O \\$$

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C. Praveen, K. Hemanth Kumar, D. Muralidharan, P. T. Perumal*

$$Z = S,O$$
Ar = Phenyl, Pyrazolyl, Indolyl and Pyrrolyl.

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Yutaka Kubota, Mayumi Kunikata, Nobuhide Ishizaki, Kazuhiro Haraguchi, Yuki Odanaka, Hiromichi Tanaka*

ROOR
$$R = TBDMS$$

$$R = TBDMS$$

$$ROO$$

$$R = TBDMS$$

$$ROO$$

Synthesis of N-tosyl-3,3,4-trisubstituted pyrrolidine derivatives starting from the Baylis–Hillman adducts via radical cyclization

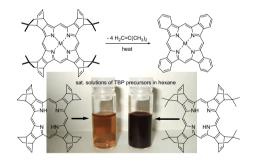
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Tetsuo Okujima*, Yusuke Hashimoto, Guangnan Jin, Hiroko Yamada, Hidemitsu Uno, Noboru Ono*





$\textbf{Bis}(\textbf{NHC}) - \textbf{Pd}(\textbf{II}) \ \textbf{complexes as highly efficient catalysts for allylation of aldehydes with allyltributyltin}$

pp 2412-2418

Tao Zhang, Min Shi*, Meixin Zhao

2: R = Me, 3: R = CF₃

cis-Chelated bidentate bis(NHC)-Pd(II) complexes, which have weakly coordinating counterions, are fairly effective in allylation of aldehydes with allyltributyltin to give the products in good to excellent yields in most cases at room temperature.



Unusual reactions of Grignard reagents toward fluoroalkylated esters

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Takashi Yamazaki*, Tsukasa Terajima, Tomoko Kawasaki-Taskasuka

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Chun-Ling Shi, Da-Qing Shi*, Sung Hong Kim, Zhi-Bin Huang, Shun-Jun Ji, Min Ji*

The conformation of alkyl cyclohexanones and terpenic ketones. Interpretation for the 'alkylketone effect' pp 2433–2440 based on the $CH/\pi(C=O)$ hydrogen bond

Osamu Takahashi*, Katsuyoshi Yamasaki, Yuji Kohno*, Youji Kurihara, Kazuyoshi Ueda, Yoji Umezawa, Hiroko Suezawa, Motohiro Nishio*

Ab initio MO calculations were carried out to investigate the Gibbs free energy of the conformational isomers of cyclohexanone derivatives. The genesis of the stabilization of the axial conformers in 2- and 3-alkyl cyclohexanones has been attributed to the attractive, five-membered $CH/\pi(C=O)$ hydrogen bond.

Enantioselective addition of β -functionalized allylboronates to aldehydes and aldimines. Stereocontrolled pp 2441–2455 synthesis of α -methylene- γ -lactones and lactams

Isabelle Chataigner*, Françoise Zammattio, Jacques Lebreton, Jean Villiéras

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Harrie J. M. Gijsen*, Michel J. A. De Cleyn, Christopher J. Love, Michel Surkyn, Sven F. A. Van Brandt,
Marc G. C. Verdonck, Luc Moens, Jef Cuypers, Jean-Paul R. M. A. Bosmans*

On the regioselectivity of the PIFA-mediated bis(trifluoroacetoxylation) of styrene-type compounds Imanol Tellitu*, Esther Domínguez*

pp 2465-2470



$Bis(\mu\text{-iodo})bis((-)\text{-sparteine}) dicopper(I) \text{: } versatile \ catalyst \ for \ direct \ N\text{-arylation of } diverse \ nitrogen \ heterocycles \ with \ haloarenes$

pp 2471-2479

H. Maheswaran*, G. Gopi Krishna, K. Leon Prasanth, V. Srinivas, G. Krishna Chaitanya, K. Bhanuprakash



An enantioselective nucleophilic addition of α,β -unsaturated trifluoromethylketones catalyzed by L-proline derivatives

pp 2480-2488

Dehui Zhang, Chengye Yuan*

A novel L-proline derivative was used in a unique aldol reaction involving acetone and α,β -unsaturated trifluoromethylketones to provide S-products in high yield and excellent enantioselectivity. In this paper, investigation into the unique reaction was carefully described. At the end of it, several hypotheses were postulated to give appropriate explanations to the results obtained in the unique reaction with the help of an X-ray crystallographic analysis.

yield up to 99% ee up to 91%

OTHER CONTENT

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*Supplementary data available via ScienceDirect



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