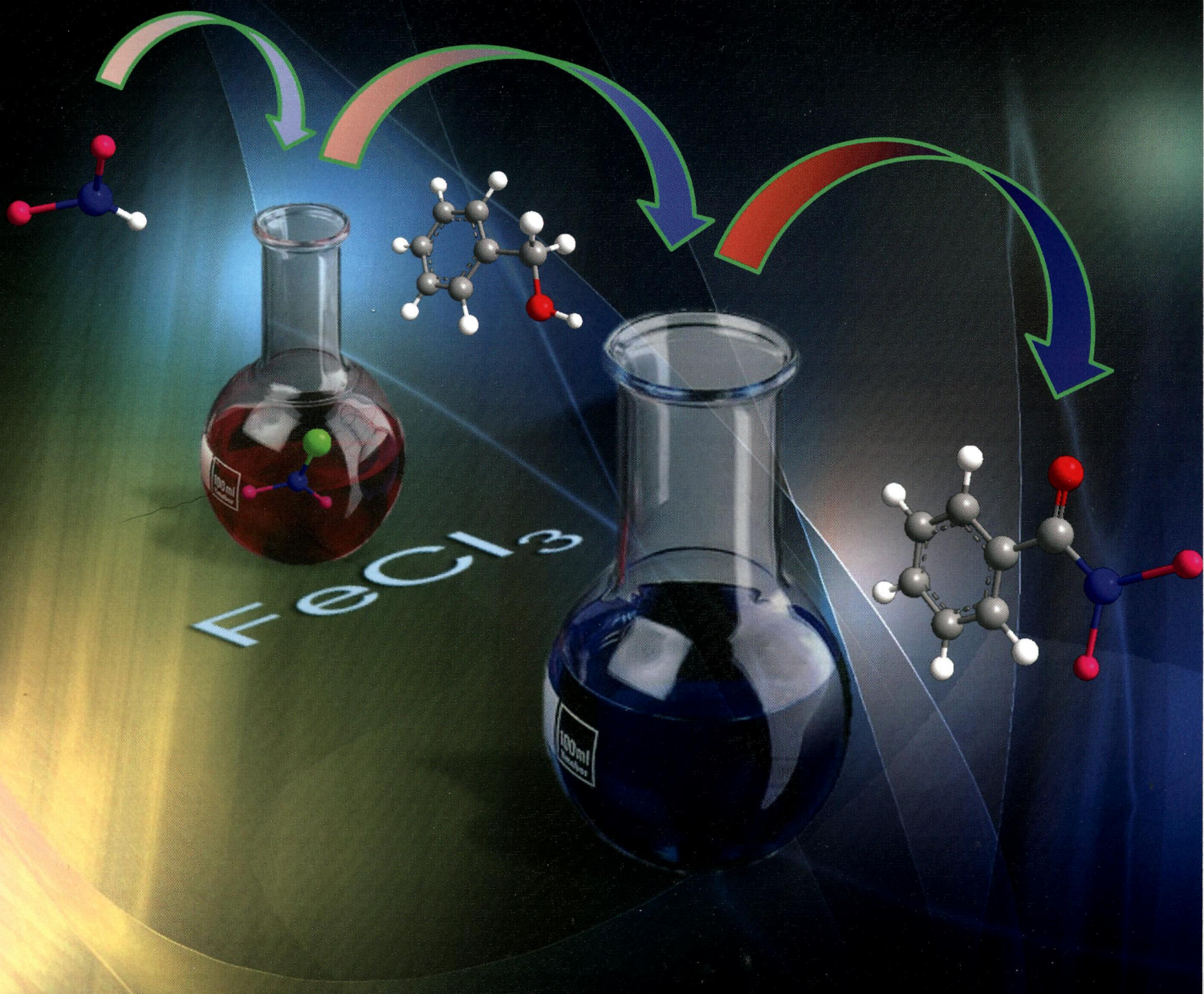


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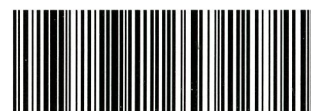
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PAPER

Lidia De Luca *et al.*

Iron-catalysed oxidative amidation of alcohols with amines



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Organic & Biomolecular Chemistry

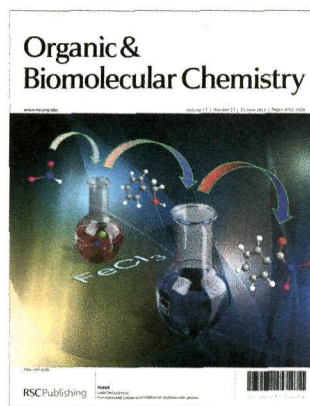
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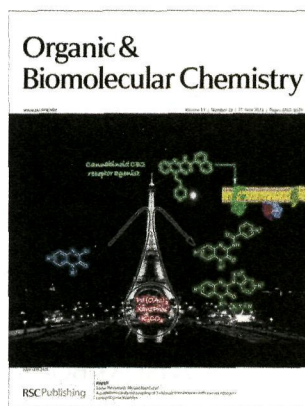
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Cover

See Lidia De Luca *et al.*, pp. 3803–3807.

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Inside cover

See Samir Messaoudi, Mouâd Alami *et al.*, pp. 3808–3816.

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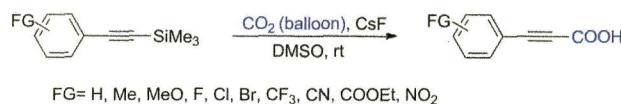
COMMUNICATIONS

3773

Carboxylation of alkynylsilanes with carbon dioxide mediated by cesium fluoride in DMSO

Misato Yonemoto-Kobayashi, Kiyofumi Inamoto, Yoshiyuki Tanaka and Yoshinori Kondo*

Alkynylsilanes with functional groups were carboxylated using CO₂ in balloon in the presence of CsF in DMSO at room temperature.

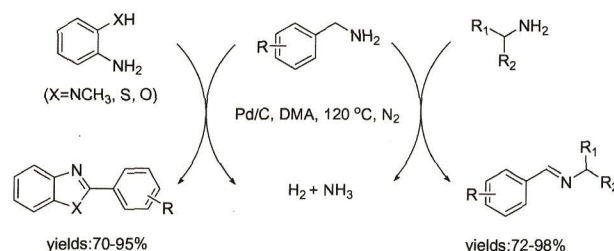


3776

Formation of C=N bonds by the release of H₂: a new strategy for synthesis of imines and benzazoles

Xukang Jin, Yuxiao Liu, Qiongqiong Lu, Dejun Yang, Jiangkai Sun, Shuangshuang Qin, Jingwu Zhang, Jiaxuan Shen, Changhu Chu and Renhua Liu*

A new strategy for synthesis of imines using the approach of release of H₂ has been developed. This oxidant- and acceptor-free Pd/C catalysis protocol is further applied to synthesis of benzazoles through a one-pot cascade reaction with notably high yields.



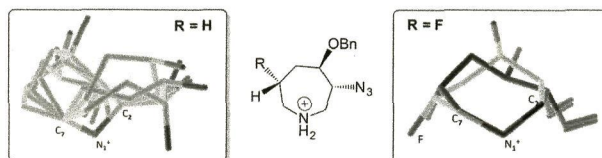
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Российской академии наук (ЦНБ Уро РАН)

3781

Conformational regulation of substituted azepanes through selective monofluorination

Alpesh Ramanlal Patel, Graham Ball, Luke Hunter and Fei Liu*

Stereoselective fluorination can impose conformational bias in an otherwise highly flexible seven-membered ring.



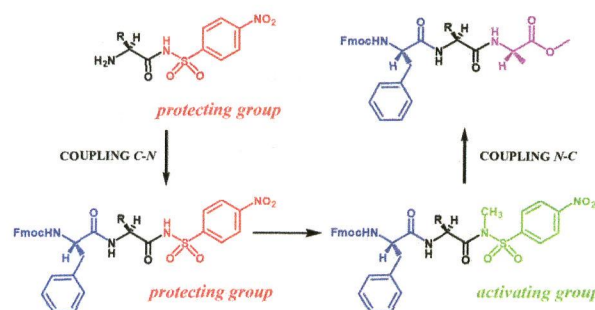
PAPERS

3786

C → N and N → C solution phase peptide synthesis using the N-acyl 4-nitrobenzenesulfonamide as protection of the carboxylic function

Rosaria De Marco, Mariagiovanna Spinella, Anna De Lorenzo, Antonella Leggio* and Angelo Liguori*

The N-acyl 4-nitrobenzenesulfonamides have been used as "activatable protection" of the carboxylic function in solution phase peptide synthesis for the obtention of peptides both in the C → N and in the N → C direction.

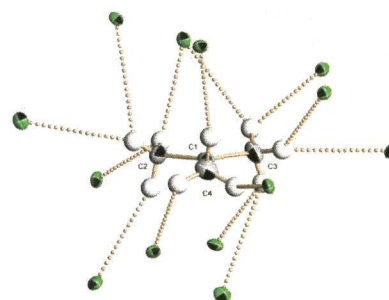


3797

Hydrogen bonding versus hyperconjugation in condensed-phase carbocations

Christopher A. Reed,* Evgenii S. Stoyanov and Fook S. Tham

By assigning IR bands in the ν CH region of *t*-butyl cation to specific C–H bonds, we show that the low-frequency ν CH_{max} band, long taken as direct evidence for hyperconjugation, is due mostly to H-bonding.

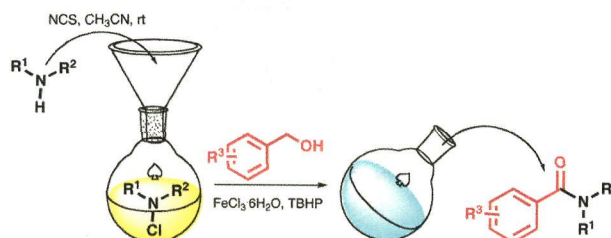


3803

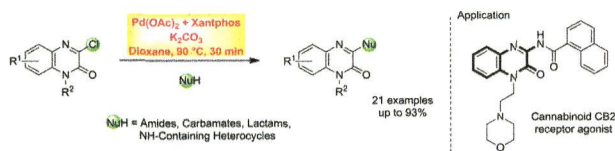
Iron-catalysed oxidative amidation of alcohols with amines

Silvia Gaspa, Andrea Porcheddu and Lidia De Luca*

A new iron-catalysed oxidative amidation of differently substituted benzylic alcohols with mono- and di-substituted amines was developed.



3808

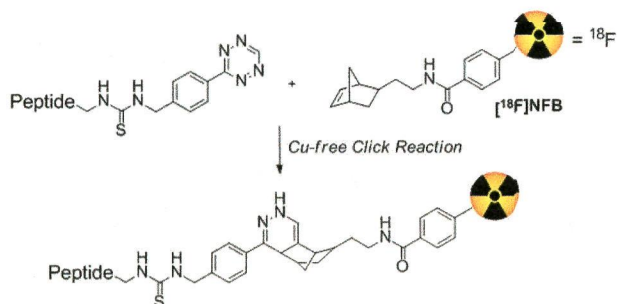


A palladium-catalyzed coupling of 3-chloroquinoxalines with various nitrogen-containing nucleophiles

Etienne Brachet, Jean-François Peyrat, Jean-Daniel Brion, Samir Messaoudi* and Mouâd Alami*

The $\text{Pd}(\text{OAc})_2/\text{Xantphos}$ catalyst system effectively catalyzes the coupling of 3-chloroquinoxalines with a series of nitrogen-containing nucleophiles in the presence of K_2CO_3 in dioxane at 90°C .

3817

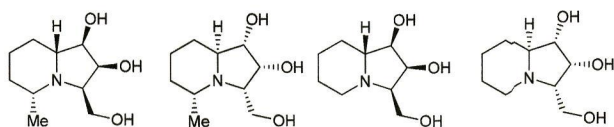


Synthesis and evaluation of an ^{18}F -labelled norbornene derivative for copper-free click chemistry reactions

James C. Knight, Susan Richter, Melinda Wuest, Jenilee D. Way and Frank Wuest*

The new ^{18}F -labelled norbornene derivative, $[\text{18F}]\text{NFB}$, undergoes rapid and highly selective copper-free click chemistry reactions with tetrazine-containing species. $[\text{18F}]\text{NFB}$ shows promise for radiolabelling peptides and other targeting vectors for PET imaging.

3826

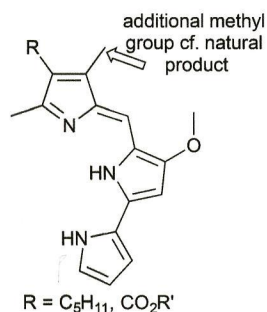


Concise synthesis of (–)-steviamine and analogues and their glycosidase inhibitory activities

Nadechanok Jiangseubchatveera, Marc E. Bouillon, Boonsom Liawruangrath, Saisunee Liawruangrath, Robert J. Nash and Stephen G. Pyne*

A concise synthesis of (–)-steviamine is reported along with the synthesis of its analogues 10-*nor*-steviamine, 10-*nor-ent*-steviamine and 5-*epi-ent*-steviamine.

3834



Synthetic prodigiosenes and the influence of C-ring substitution on DNA cleavage, transmembrane chloride transport and basicity

Soumya Rastogi, Estelle Marchal, Imam Uddin, Brandon Groves, Julie Colpitts, Sherri A. McFarland,* Jeffery T. Davis* and Alison Thompson*

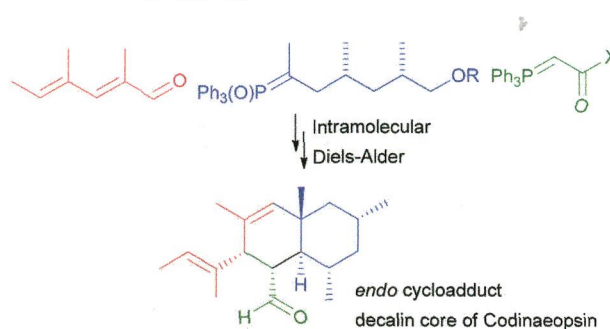
Modification of the C-ring of prodigiosenes by inclusion of conjugated esters gave compounds with interesting anti-cancer activity; structural features and consequent pK_a correlate with transmembrane chloride transport ability.

3846

Synthesis of the decalin core of codinaeopsin via an intramolecular Diels–Alder reaction

Mani Ramanathan, Chun-Jui Tan, Wen-Jung Chang, Hui-Hsu Gavin Tsai* and Duen-Ren Hou*

The highly substituted decalin core of codinaeopsin was synthesized *via* an intramolecular Diels–Alder reaction.

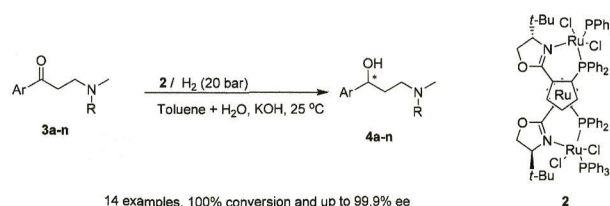


3855

Asymmetric hydrogenation of β -amino ketones with the bimetallic complex RuPHOX-Ru as the chiral catalyst

Jiahao Wang, Delong Liu,* Yangang Liu and Wanbin Zhang*

Asymmetric hydrogenations of a series of β -amino ketones were performed using a stable bimetallic chiral catalyst **2** with quantitative yields of products and up to 99.9% ee.

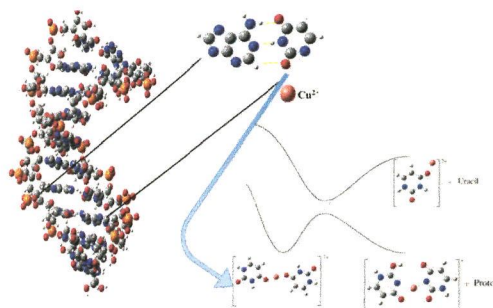


3862

On the stability of $[(\text{uracil})_2\text{-Cu}]^{2+}$ complexes in the gas phase. Different pathways for the formation of $[(\text{uracil-H})(\text{uracil})\text{-Cu}]^+$ monocations

Oriana Brea, Manuel Yáñez, Otilia Mó and Al Mokhtar Lamsabhi*

Cu^{2+} leads to the deprotonation of one of the uracil units within the $[(\text{uracil})_2\text{-Cu}]^{2+}$ doubly-charged complexes and to a simultaneous enolization of the other uracil moiety.

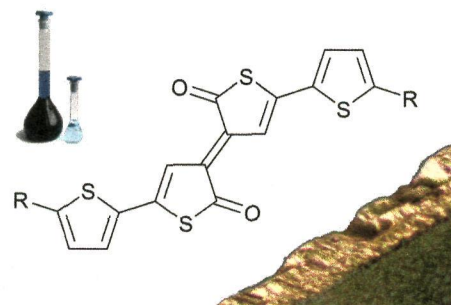


3871

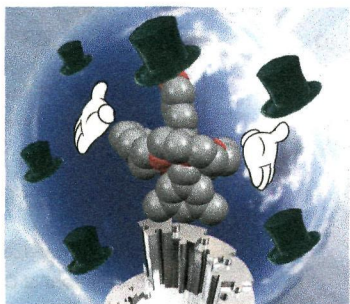
(*E*)-5,5'-Di(thiophen-2-yl)-3,3'-bi[thiophen-3(2*H*)-ylidene]-2,2'-diones— from conspicuous blue impurities to “quasi-metallic” golden-bronze crystals

Nicholas R. Evans* and Andrew J. P. White

Synthesis and modern computational chemistry enabled us to unravel the misassignment of the by-product that now leads this new family of intense blue dyes.



3880

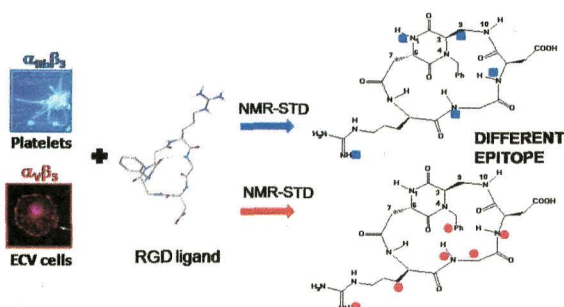


Threaded structures based on the benzo-21-crown-7/secondary ammonium salt recognition motif using esters as end groups

Bo Zheng, Mingming Zhang, Xuzhou Yan and Feihe Huang*

It was demonstrated that various threaded structures could be constructed by employing different esters as end groups based on the benzo-21-crown-7/secondary ammonium salt recognition motif.

3886

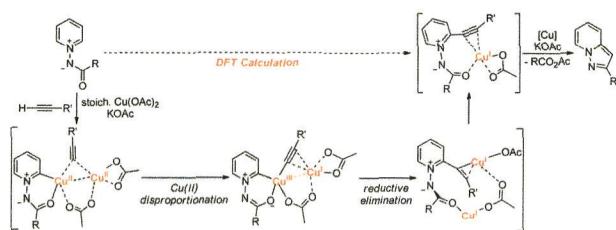


Determination of the binding epitope of RGD-peptidomimetics to $\alpha_v\beta_3$ and $\alpha_{11b}\beta_3$ integrin-rich intact cells by NMR and computational studies

Ileana Guzzetti, Monica Civera, Francesca Vasile, Elena M. Araldi, Laura Belvisi,* Cesare Gennari, Donatella Potenza,* Roberto Fanelli and Umberto Piarulli

The binding epitope of RGD peptidomimetics with integrins $\alpha_v\beta_3$ and $\alpha_{11b}\beta_3$ was determined by STD-NMR experiments on intact cells and docking calculations.

3894

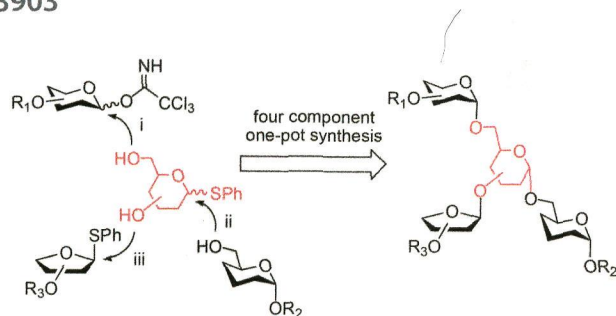


From *N*-benzoylpyridinium imides to pyrazolo-[1,5-*a*]pyridines: a mechanistic discussion on a stoichiometric Cu protocol

Lin Ling, Jingqing Chen, Jiahui Song, Yuhai Zhang, Xinqian Li, Lijuan Song, Feng Shi,* Yuxue Li* and Chunrui Wu*

A Cu-mediated process that couples *N*-benzoylpyridinium imides and terminal alkynes employs stoichiometric $\text{Cu}(\text{OAc})_2$ as both the mediator and the oxidant. Extensive DFT calculations suggest a $\text{Cu}(\text{III})$ intermediate via $\text{Cu}(\text{II})$ disproportionation.

3903



One-pot synthesis of branched oligosaccharides by use of galacto- and mannopyranosyl thioglycoside diols as key glycosylating agents

Xing-Yong Liang, Qiang-Wei Liu, Hua-Chao Bin and Jin-Song Yang*

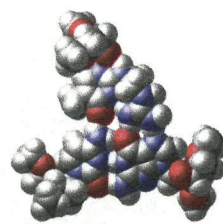
We describe in this paper the efficient four-component one-pot synthesis of three fully protected oligosaccharides **22**, **36**, and **50** with di-branched structures by employing *D*-galacto- and mannopyranosyl thioglycoside diols as central glycosylating agents.

3918

***N*-(Guanidinoethyl)-2'-deoxy-5-methylisocytidine exhibits selective recognition of a CG interrupting site for the formation of anti-parallel triplexes**

Hidenori Okamura, Yosuke Taniguchi* and Shigeki Sasaki*

The guanidino group was suggested to form hydrogen bonds with ^6O and ^7N atoms of a guanine base of a CG interrupting site.



Space-filling model

