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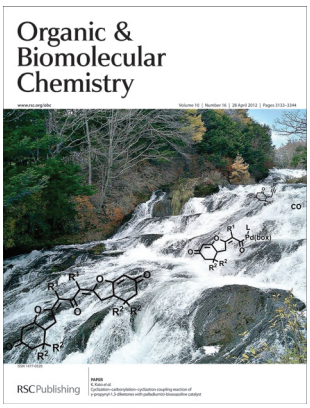
ISSN 1477-0520 CODEN OBCRAK 10(16) 3133–3344 (2012)

Cover
See B. Zajc *et al.*, pp. 3164–3167.

A facile building block approach allows synthesis of 1-substituted-1-fluoroethenes under mild conditions. The authors thank Satish Lakshman (Pixiedust Design) for the cover art design. Image reproduced by permission of Barbara Zajc from *Organic & Biomolecular Chemistry*, 2012, **10**, 3164.



Inside cover
See K. Kato *et al.*, pp. 3192–3194.

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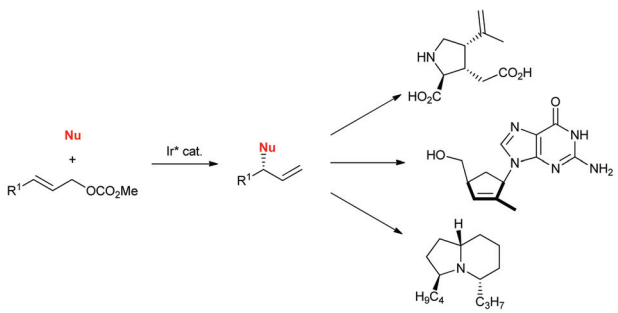
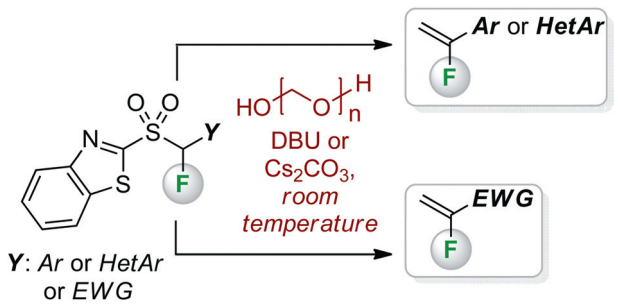
PERSPECTIVE



COMMUNICATIONS



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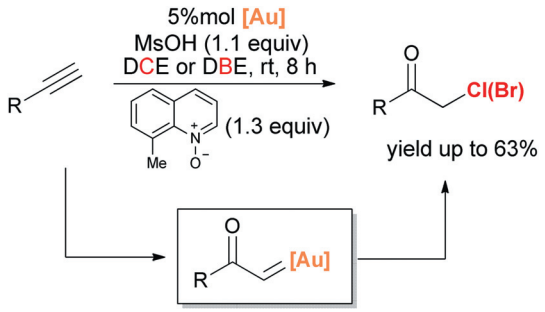
3168

Electrophilicity of α-oxo gold carbene intermediates: halogen abstractions from halogenated solvents leading to the formation of chloro/bromomethyl ketones

Weimin He, Longyong Xie, Yingying Xu, Jiannan Xiang* and Liming Zhang*

α-Oxo gold carbenes generated *via* intermolecular oxidation of terminal alkynes can effectively abstract halogen from halogenated solvents.

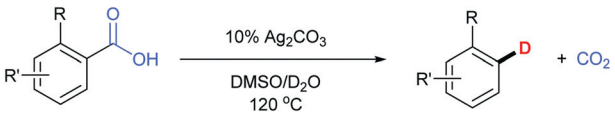


3172

Selective deuteration of (hetero)aromatic compounds *via* deutero-decarboxylation of carboxylic acids

Rachel Grainger, Arif Nikmal, Josep Cornella and Igor Larrosa*

A practical, mild and highly selective protocol for the monodeuteration of a variety of arenes and heteroarenes is presented. Catalytic amounts of Ag(I) salts in DMSO/D_2O are shown to facilitate the deutero-decarboxylation of *ortho*-substituted benzoic and heteroaromatic α-carboxylic acids in high yields with excellent levels of deuterium incorporation.

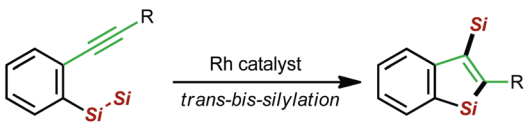


3175

Rhodium-catalysed intramolecular *trans*-bis-silylation of alkynes to synthesise 3-silyl-1-benzosiloles

Takanori Matsuda* and Yoichiro Ichioka

Intramolecular addition of a Si–Si bond across a C–C triple bond occurs in a *trans* fashion in the presence of rhodium(I) catalysts. The *trans*-bis-silylation reaction of (2-alkynylphenyl)disilanes affords 3-silyl-1-benzosiloles.

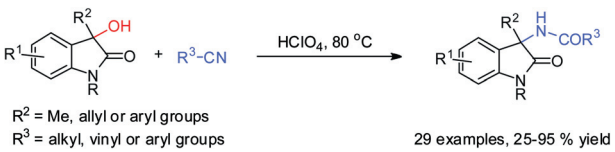


3178

A catalytic metal-free Ritter reaction to 3-substituted 3-aminooxindoles

Feng Zhou, Miao Ding and Jian Zhou*

The first Ritter reaction of 3-substituted-3-hydroxyoxindoles with nitriles, catalyzed by $HClO_4$, is developed, enabling the synthesis of 3-aminooxindoles in rich diversity.



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13th Belgian Organic Synthesis Symposium

July 15>20, 2012, KU Leuven, Belgium

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- **16 plenary lectures**
  Prof. Matthias BELLER (University of Rostock, Germany)
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  Prof. Jan-Erling BÄCKVALL (Stockholm University, Sweden)
  Prof. Karl GADEMANN (University of Basel, Switzerland)
  Prof. Frank GLORIUS (University of Münster, Germany)
  Prof. Véronique GOUVERNEUR (University of Oxford, UK)
  Prof. Shu KOBAYASHI (University of Tokyo, Japan)
  Prof. Michael J. KRISCHE (University of Texas, USA)
  Dr Emmanuel LACÔTE (ICSN-CNRS, France)
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  Prof. Klaus MÜLLER (F. Hoffmann-la Roche Ltd, Switzerland)
  Prof. Tobias RITTER (Harvard University, USA)
  Prof. Scott SNYDER (Columbia University, USA)
  Prof. Paul A. WENDER (Stanford University, USA)
  Prof. Ming Hua XU (Shanghai Institute of Materia Medica, China)
- **Lecture** delivered by the recipient of the Janssen Pharmaceutica Prize for Creativity in Organic Synthesis
- **Poster sessions**
- **Exhibition**
- **Social activities**

Janssen Pharmaceutica Prize for Creativity in Organic Synthesis

Prof. Ilan Marek (Technion - Israel Institute of Technology, Israel) has been designated by the Jury as the winner of the 2012 Janssen Pharmaceutica Prize for Creativity in Organic Synthesis, established in order to honour Dr Paul Janssen, founder of Janssen Pharmaceutica. The award will be delivered after the lecture of Prof. Marek on Thursday July 19, 2012.

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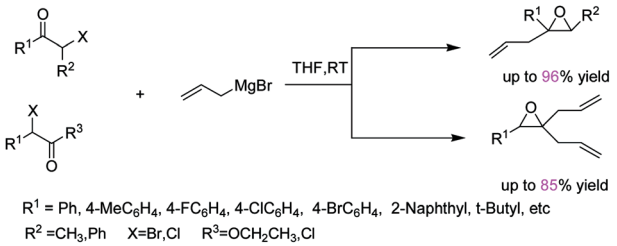
COMMUNICATIONS

3182

An efficient synthetic method for allyl-epoxides *via* allylation of α-haloketones or esters with allylmagnesium bromide

Liyuan Fan, Min Zhang and Songlin Zhang*

The manuscript describes the synthesis of allyl-epoxides and diallyl-epoxides by allylation of α-haloketones and esters with allylmagnesium bromide in mild conditions.

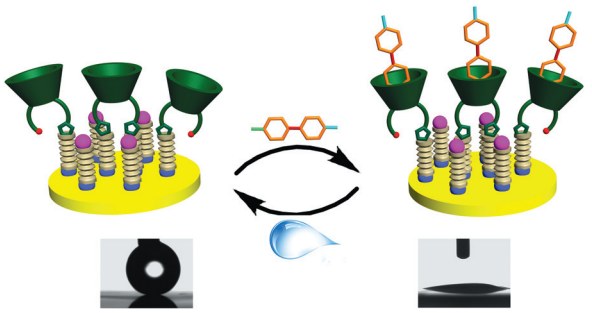


3185

Design of switchable wettability sensor for paraquat based on clicking calix[4]arene

Guifen Zhang, Xiaolei Zhu, Fajun Miao, Demei Tian and Haibing Li*

A calix[4]arene acetylene-modified gold surface is constructed *in situ via* click chemistry and used for selective recognition of paraquat by a wettability switch. Impedance measurements show that it can also recognise paraquat with high sensitivity. The host–guest inclusion-based recognition is studied computationally and a possible mechanism analyzed.

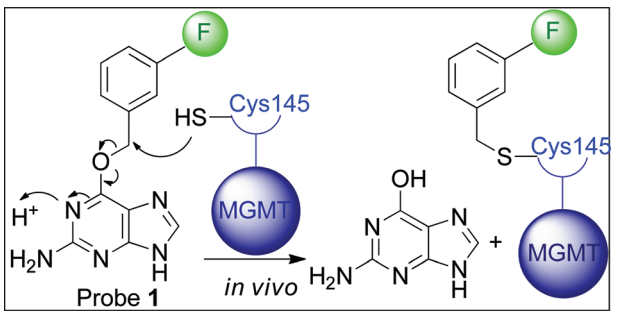


3189

A mechanism-based fluorescent probe for labeling O^6-methylguanine-DNA methyltransferase in live cells

Xin Li, Shijing Qian, Lin Zheng, Bo Yang, Qiaojun He and Yongzhou Hu*

A mechanism-based fluorescent probe for detecting active O^6-methylguanine-DNA methyltransferase in live cells has been developed.



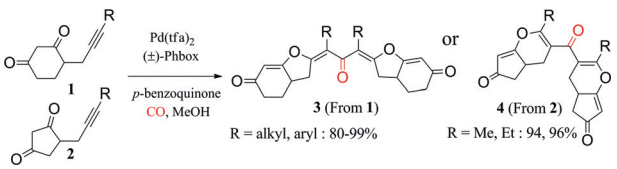
PAPERS

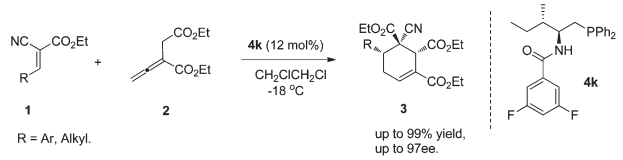
3192

Cyclization–carbonylation–cyclization coupling reaction of γ-propynyl-1,3-diketones with palladium(II)-bisoxazoline catalyst

Taichi Kusakabe, Yasuko Kawai, Rong Shen, Tomoyuki Mochida and Keisuke Kato*

Cyclization–carbonylation–cyclization coupling reactions (CCC-coupling reaction) of γ-propynyl-1,3-diketones catalyzed by (box)Pd^{II} complexes afforded symmetrical ketones possessing two oxabicyclic groups in moderate to excellent yields.

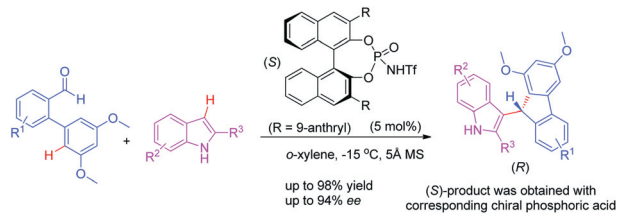




Highly enantioselective [4 + 2] cycloadditions of allenoates and dual activated olefins catalyzed by *N*-acyl aminophosphines

Hua Xiao, Zhuo Chai, Dongdong Cao, Hongyu Wang, Jinghao Chen and Gang Zhao*

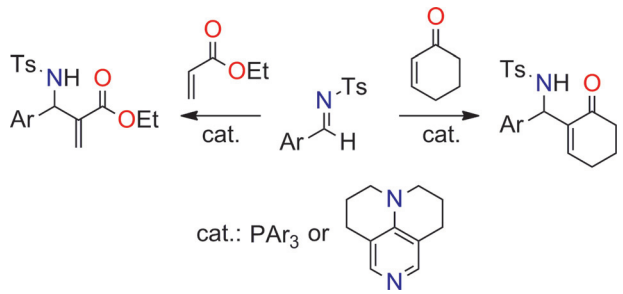
An asymmetric organocatalytic [4 + 2] cycloaddition between α-substituted allenoates and 2-cyano acrylates using bifunctional *N*-acyl aminophosphine catalysts is described.



Enantioselective synthesis of fluorene derivatives by chiral *N*-triflyl phosphoramide catalyzed double Friedel–Crafts alkylation reaction

Shou-Guo Wang, Long Han, Mi Zeng, Feng-Lai Sun, Wei Zhang and Shu-Li You*

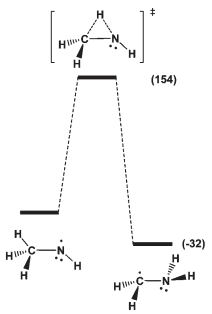
Tandem double Friedel–Crafts reaction between indoles and 2-formylbiphenyls by chiral *N*-triflyl phosphoramide was realized, affording (3-indolyl) fluorenes with excellent enantioselectivity.



The aza-Morita–Baylis–Hillman reaction of electronically and sterically deactivated substrates

Christoph Lindner, Raman Tandon, Yinghao Liu, Boris Maryasin and Hendrik Zipse*

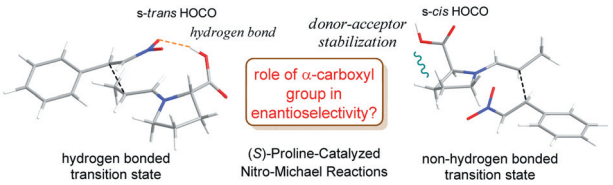
Kinetic measurements and theoretical studies have been combined to develop highly active catalysts for the aza-Morita–Baylis–Hillman reaction of electronically or sterically deactivated substrates.

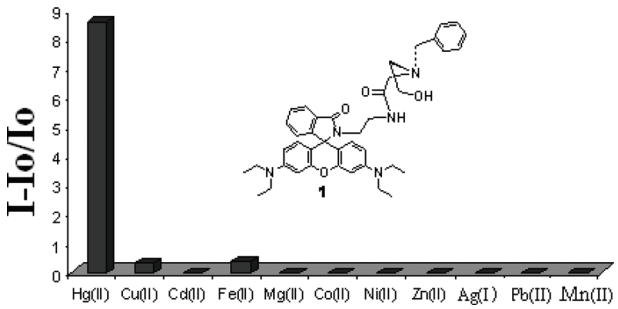


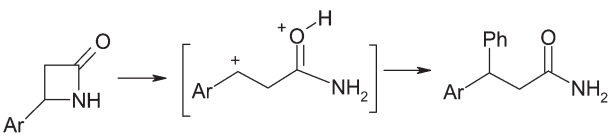
Hydrogen tunnelling influences the isomerisation of some small radicals of interstellar importance. A theoretical investigation

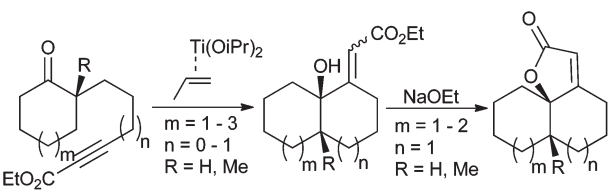
Tianfang Wang and John H. Bowie*

Hydrogen atom isomerisations within five radical systems (*i.e.*, $CH_3{}^{\cdot}NH/{}^{\cdot}CH_2NH$; $CH_3O^{\cdot}/{}^{\cdot}CH_2OH$; ${}^{\cdot}CH_2SH/CH_3S^{\cdot}$; $CH_3CO_2{}^{\cdot}/{}^{\cdot}CH_2CO_2H$; and $HOCH_2CH_2O^{\cdot}/HO^{\cdot}CHCH_2OH$) have been studied *via* quantum-mechanical hydrogen tunnelling through reaction barriers; *e.g.* $CH_3{}^{\cdot}NH \rightarrow {}^{\cdot}CH_2NH_2$.









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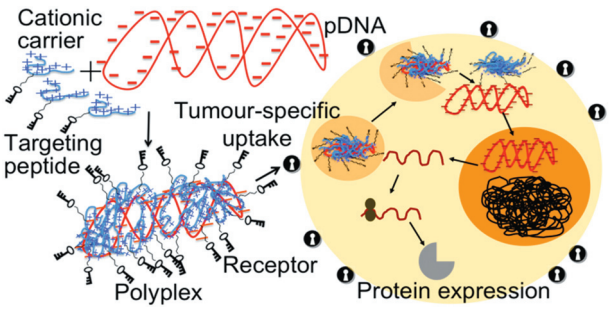
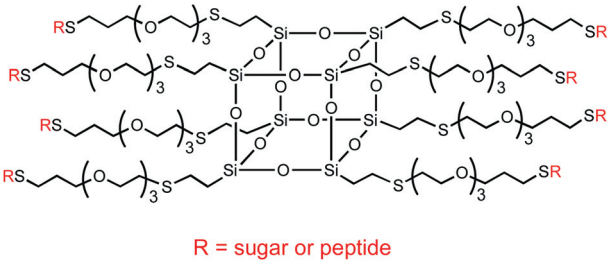
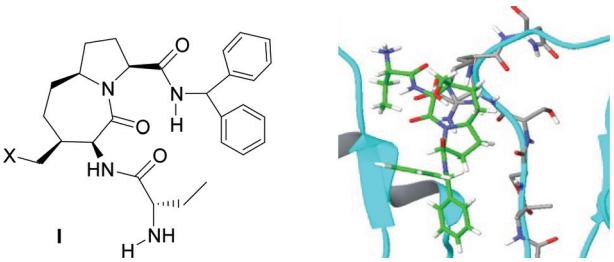
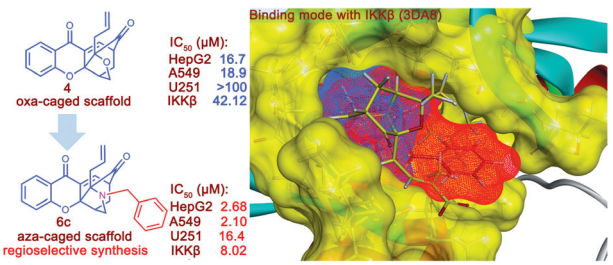






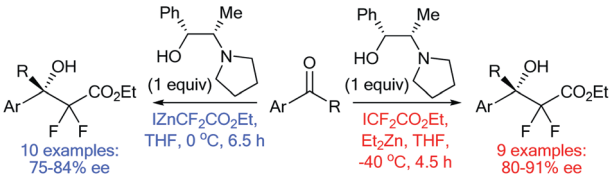


3332

Enantioselective Reformatsky reaction of ethyl iododifluoroacetate with ketones

Michal Fornalczyk, Kuldip Singh and Alison M. Stuart*

Two approaches have been developed for the enantioselective Reformatsky reaction of ethyl iododifluoroacetate with alkyl aryl ketones to form a quaternary carbon centre.



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