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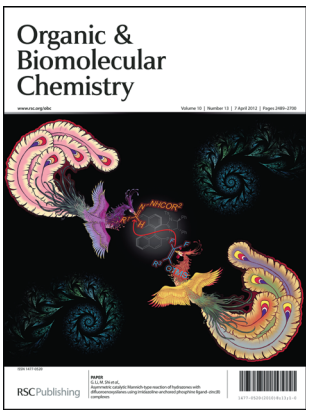

Cover

See G. Li, M. Shi *et al.*, pp. 2509–2513.

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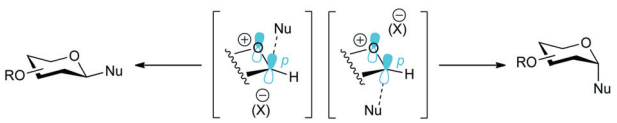
PERSPECTIVE



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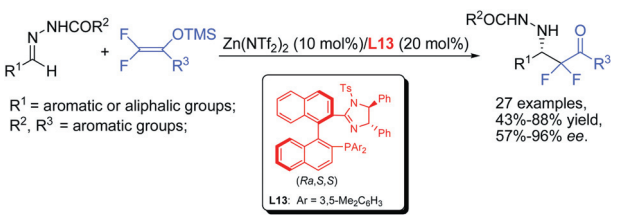

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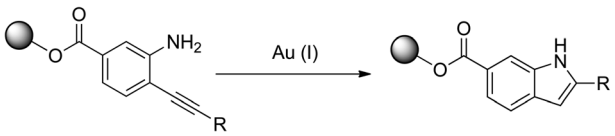
2514

Gold catalysis on immobilized substrates: a heteroannulation approach to the solid-supported synthesis of indoles

Agustina La-Venia, Sebastián A. Testero, Mirta P. Mischne* and Ernesto G. Mata*

A gold-catalyzed cyclization of immobilized 2-alkynylanilines was developed as the key step in the synthetic sequence for the preparation of 2-substituted indoles.



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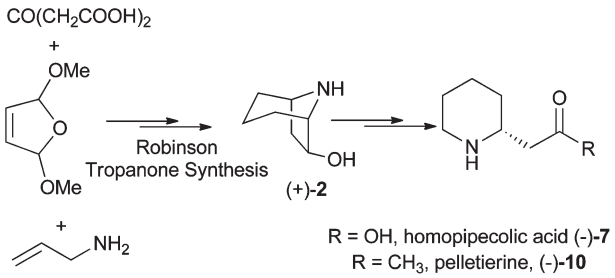
Syntheses of (−)-pelletierine and (−)-homopipecolic acid

Wen-Hua Chiou,* Guei-Tang Chen, Chien-Lun Kao and Yu-Kai Gao

Enantiomeric syntheses of (−)-homopipecolic acid and (−)-pelletierine have been achieved by chiral resolution of tropanol and Baeyer–Villiger oxidation.

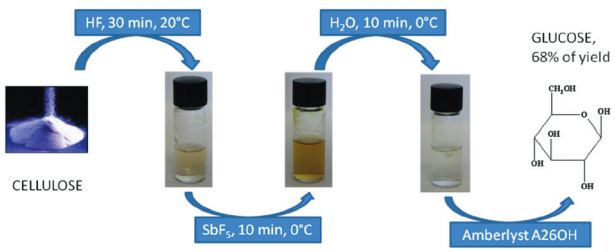


2521

High efficiency of superacid HF–SbF_5 for the selective decrystallization–depolymerization of cellulose to glucose

Agnès Martin-Mingot, Karine De Oliveira Vigier,* François Jérôme and Sébastien Thibaudeau*

Superacid HF–SbF_5 can selectively depolymerise cellulose to glucose *via* a polyprotonation mechanism without fluorination reaction or glucose decomposition.

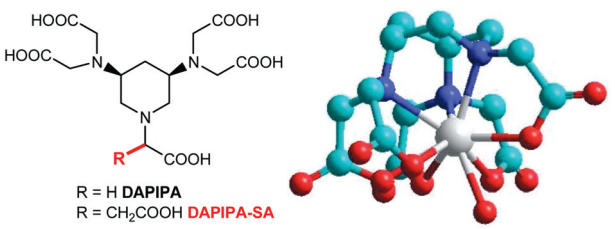


2525

One-pot synthesis of a piperidine-based rigidified DTPA analogue and its bifunctional chelating agent

Lorenzo Tei,* Gabriele A. Rolla, Giuseppe Gugliotta and Mauro Botta

A novel rigid DTPA-like chelate and its bifunctional ligand were synthesised simultaneously by successive *N*-alkylation and Stevens rearrangement from *cis*-3,5-diaminopiperidine.



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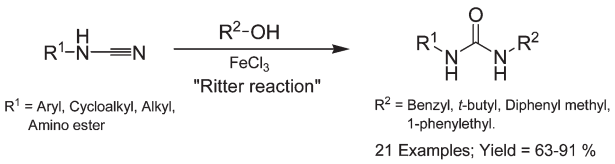
Iron(III) catalysed synthesis of unsymmetrical di and trisubstituted ureas – a variation of classical Ritter reaction

Hosamani Basavaprabhu and Vommina V. Sureshbabu*

An application of the classical Ritter reaction for the synthesis of unsymmetrical di and trisubstituted ureas catalyzed by $FeCl_3$ is described.



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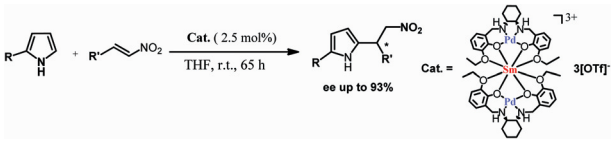
A heterotrimetallic Pd–Sm–Pd complex for asymmetric Friedel–Crafts alkylations of pyrroles with nitroalkenes

Guoqi Zhang*

Catalytic asymmetric Friedel–Crafts reactions of pyrroles and nitroalkenes were carried out by using a heterotrimetallic Pd–Sm–Pd catalyst, to give the adducts with high yields and up to 93% ee.



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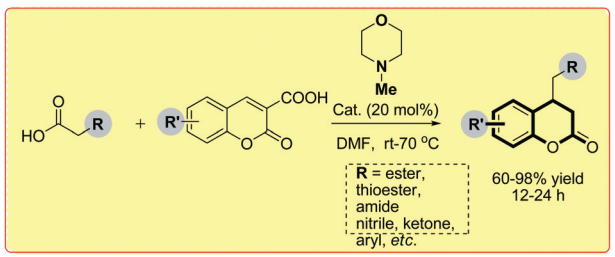
Facile synthesis of 4-substituted 3,4-dihydrocoumarins *via* an organocatalytic double decarboxylation process

Shiyong Peng, Lei Wang, Haibing Guo, Shaofa Sun and Jian Wang*

We have documented an efficient and convenient double decarboxylation process for the synthesis of 4-substituted 3,4-dihydrocoumarin in moderate to excellent yields under mild reaction conditions (up to 98%).

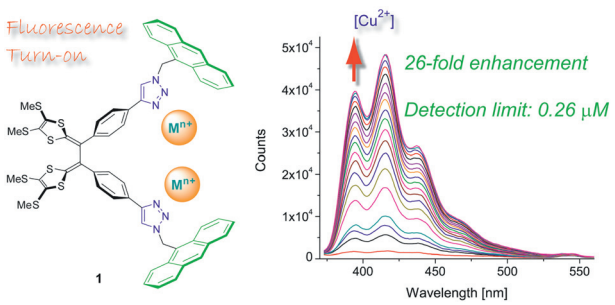


2542

Click synthesized dianthryl–TTFV: an efficient fluorescent turn-on probe for transition metal ions

Karimulla Mulla, Prateek Dongare, David W. Thompson and Yuming Zhao*

Tetrathiafulvalene vinylogue (TTFV) was functionalized with two anthryl fluorophores *via* Cu(I)-catalyzed alkyne–azide [3 + 2] cycloaddition, forming a dianthryl–TTFV hybrid to show fluorescent turn-on sensing behaviour for Cu^{2+}, Fe^{2+}, and Cd^{2+} ions in THF with remarkably low detection limit down to the sub-ppm level.



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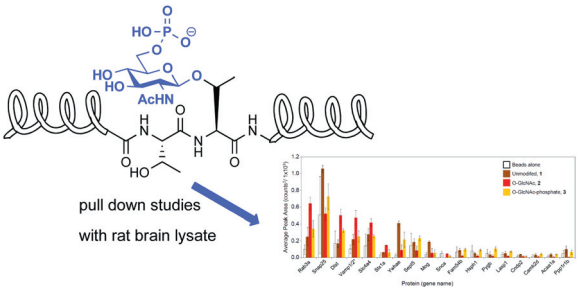

Synthesis and protein binding studies of a peptide fragment of clathrin assembly protein AP180 bearing an *O*-linked β-*N*-acetylglucosaminyl-6-phosphate modification

Mark E. Graham,* Robin S. Stone, Phillip J. Robinson and Richard J. Payne*

The synthesis and protein binding studies of a peptide fragment of AP180 bearing a recently discovered post-translational modification of threonine, β-*N*-acetylglucosaminyl-phosphate, is described.

PAPERS

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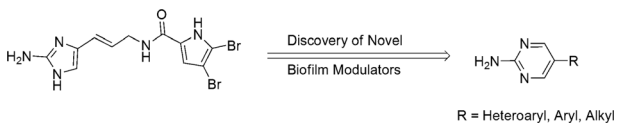
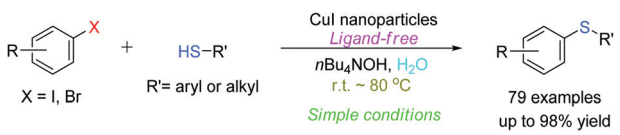


2-Aminopyrimidine as a novel scaffold for biofilm modulation

Erick A. Lindsey, Roberta J. Worthington, Cristina Alcaraz and Christian Melander

An efficient synthetic route to a series of substituted 2-aminopyrimidine (2-AP) derivatives has been developed. Several derivatives displayed the ability to modulate bacterial biofilm formation, exhibiting greater activity against Gram-positive strains than Gram-negative strains.

2562

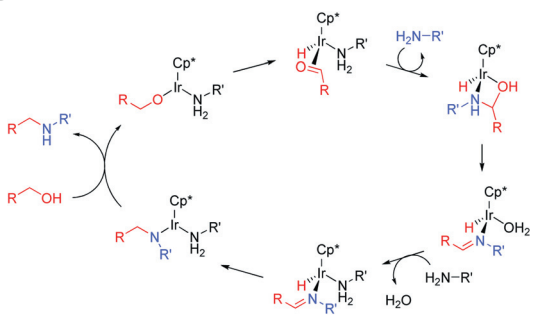


Efficient recyclable CuI-nanoparticle-catalyzed *S*-arylation of thiols with aryl halides on water under mild conditions

Hua-Jian Xu,* Yu-Feng Liang, Xin-Feng Zhou and Yi-Si Feng*

C–S cross couplings of aryl and alkyl thiols with aryl iodides and aryl bromides in the absence of ligands on water under mild conditions were described in our developed protocol.

2569



Mechanistic investigation of the iridium-catalysed alkylation of amines with alcohols

Peter Fristrup,* Matyas Tursky and Robert Madsen*

The $[Cp^*IrCl_2]_2$-catalysed alkylation of amines with alcohols was investigated using both experimental and theoretical methods. The results suggest a catalytic cycle where all the intermediates (aldehyde, hemiaminal and imine) stay coordinated to iridium.

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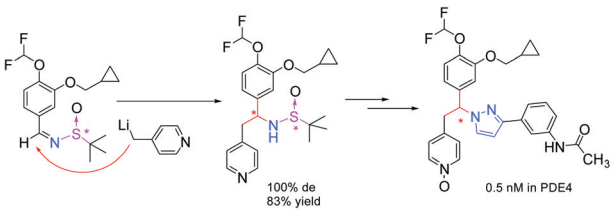

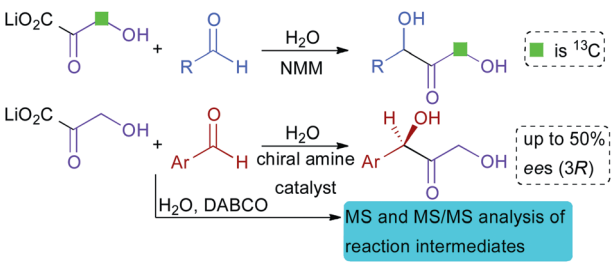

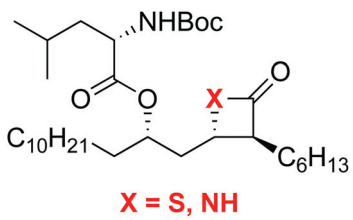

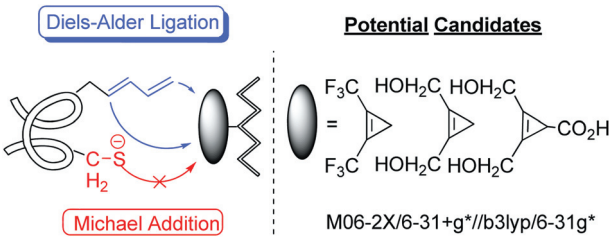

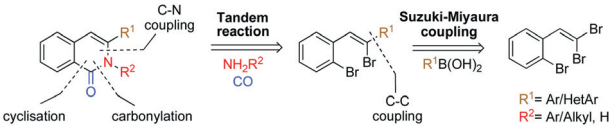

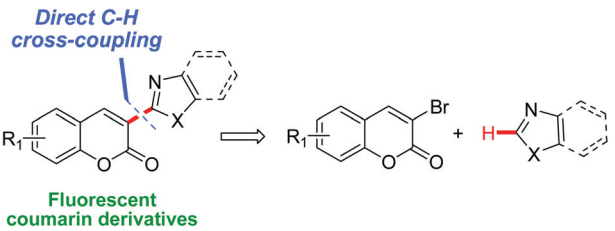

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