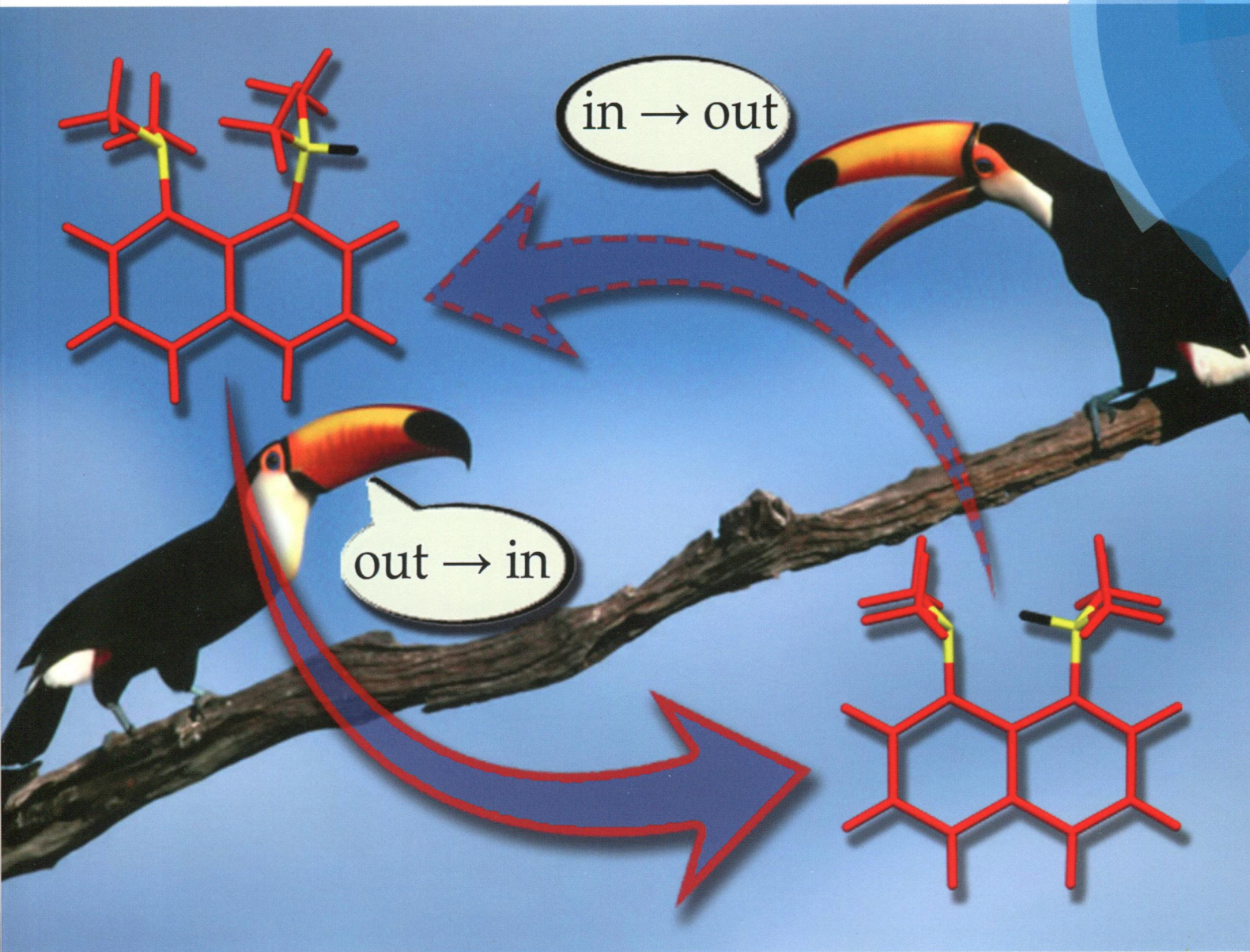


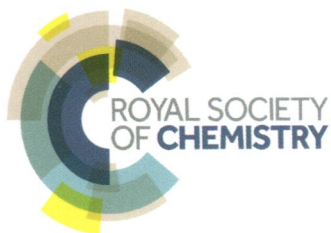
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PAPER
Alexander F. Pozharskii *et al.*
Out-Basicity of 1,8-bis(dimethylamino)naphthalene: the experimental and theoretical challenge

Organic & Biomolecular Chemistry

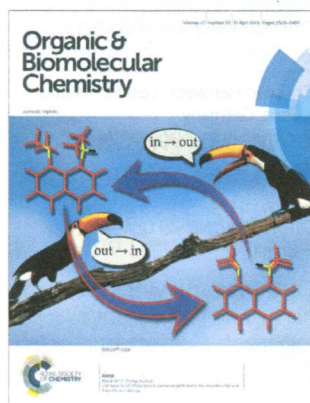
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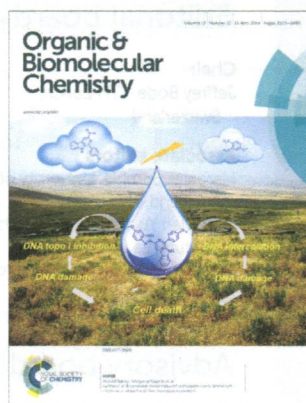
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Cover

See Alexander F. Pozharskii *et al.*, pp. 2360–2369.

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Inside cover

See Ahmed Kamal, Narayana Nagesh *et al.*, pp. 2370–2387.

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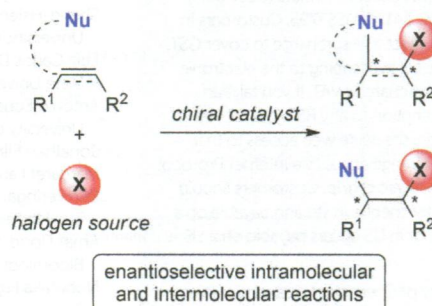
REVIEW

2333

Recent advances in asymmetric intra- and intermolecular halofunctionalizations of alkenes

Yi An Cheng, Wesley Zongrong Yu and Ying-Yeung Yeung*

Recent examples of catalytic and asymmetric intramolecular and intermolecular halofunctionalization reactions are reviewed.



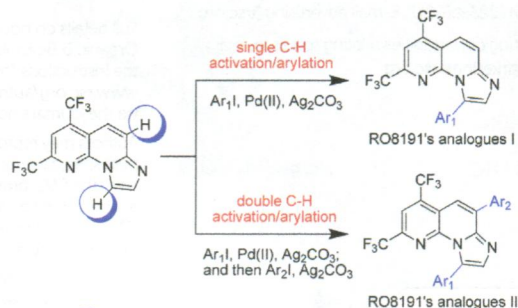
COMMUNICATIONS

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Design and synthesis of imidazo[1,2-*a*][1,8]-naphthyridine derivatives as anti-HCV agents via direct C–H arylation

Shengdian Huang, Jie Qing, Shuo Wang, Huan Wang, Linqi Zhang* and Yefeng Tang*

Two series of analogues of RO8191, a potent anti-HCV agent, were synthesized via Pd-catalyzed, regioselective, single and double C–H arylations, respectively.

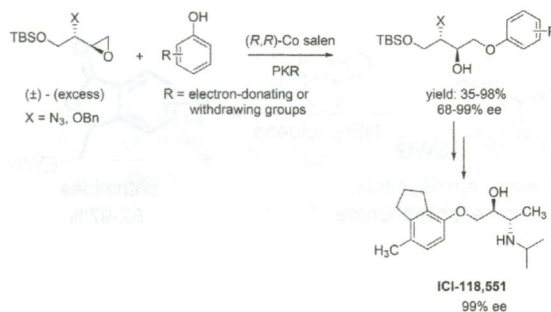


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Co(III)(salen)-catalyzed phenolic kinetic resolution of two stereocentered benzyloxy and azido epoxides: its application in the synthesis of ICI-118,551, an anti-hypertensive agent

Pratibha U. Karabal, Dayanand A. Kamble and Arumugam Sudalai*

The salen Co(III)-catalyzed phenolic kinetic resolution of racemic *anti*- or *syn*-azido and benzyloxy epoxides provides a practical route to a range of enantioenriched *anti*- or *syn*-1-aryloxy-3-azido or benzyloxy-2-alcohols.

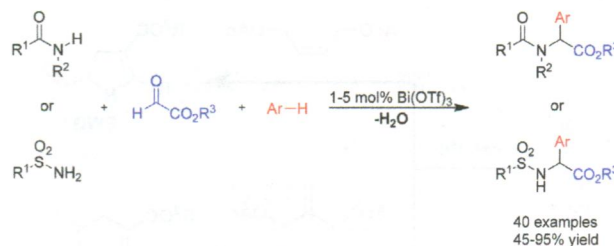


2356

Bi(OTf)₃-catalyzed three-component synthesis of α -amino acid derivatives

Angelika E. Schneider, Tamara Beisel, Andrej Shemet and Georg Manolikakes*

A highly efficient Bi(OTf)₃-catalyzed three-component synthesis of arylglycines from a (sulfon)amide, glyoxalate and arene is described.



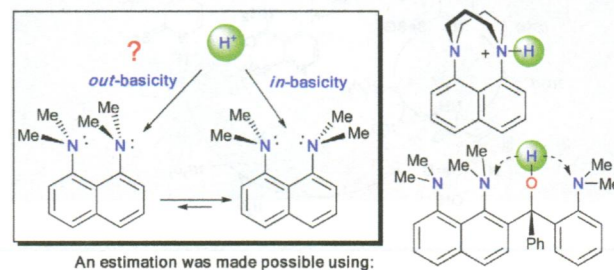
PAPERS

2360

Out-Basicity of 1,8-bis(dimethylamino)-naphthalene: the experimental and theoretical challenge

Valery A. Ozeryanskii, Alexander F. Pozharskii,* Alexander S. Antonov and Alexander Filarowski

Two different methods of protonation for the archetypal proton sponge, the *in*- and the *out*-modes, were, for the first time, investigated in detail using specially configured model compounds and a combination of physical and theoretical methods.

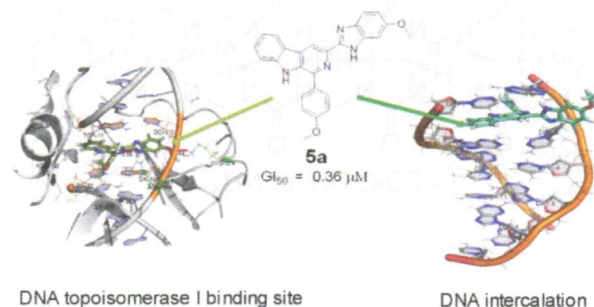


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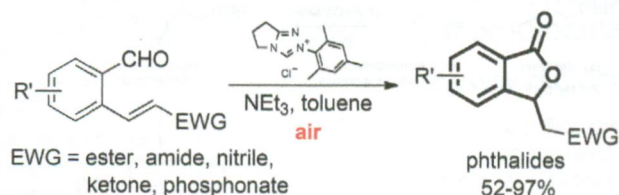
Synthesis of β -carboline–benzimidazole conjugates using lanthanum nitrate as a catalyst and their biological evaluation

Ahmed Kamal,* M. P. Narasimha Rao, P. Swapna, Vunnam Srinivasulu, Chandrakant Bagul, Anver Basha Shaik, Kishore Mullagiri, Jeshma Kovvuri, Vangala Santhosh Reddy, K. Vidyasagar and Narayana Nagesh*

A series of β -carboline–benzimidazole conjugates were synthesized using lanthanum nitrate as a novel catalyst and evaluated for their anticancer activity.



2388

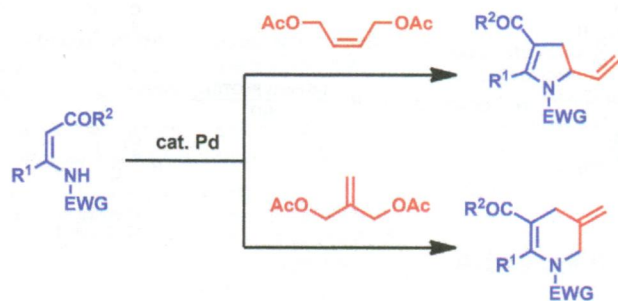


NHC-catalyzed oxidative cyclization reaction for the synthesis of 3-substituted phthalides

So Won Youn,* Hyoung Sub Song and Jong Hyub Park

An efficient NHC-catalyzed domino oxidation/oxa-Michael addition reaction of 2-alkenylbenzaldehydes has been developed to afford 3-substituted phthalides bearing a C3-stereogenic center with a broad substrate scope and wide functional group tolerance.

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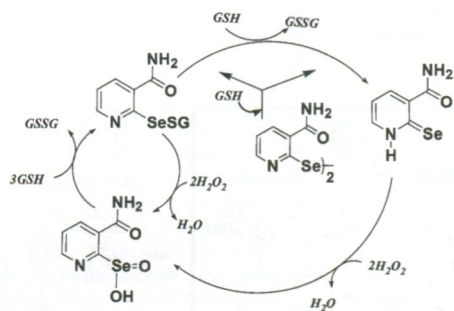


Synthesis of functionalized 2-vinyl-2,3-dihydropyrroles and 3-methylene-1,2,3,4-tetrahydropyridines by palladium-catalyzed cyclization of β -enaminocarbonyl compounds with allylic bisacetates

Masahiro Yoshida,* Kouki Kinoshita and Kosuke Namba

Palladium-catalyzed reactions of β -enaminocarbonyl compounds with 1,4-diacetoxybut-2-ene and 2-methylene-1,3-propanediol diacetate are described.

2404

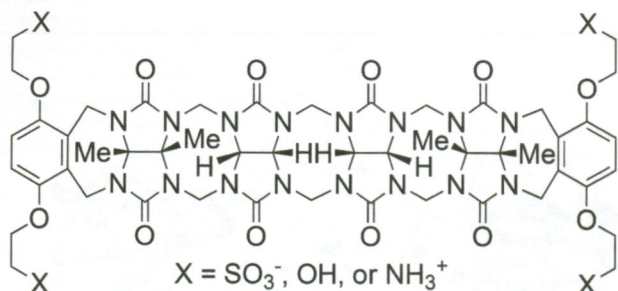


Stable selones in glutathione-peroxidase-like catalytic cycle of selenonicotinamide derivative

Parashiva Prabhu, Beena G. Singh,* Masato Noguchi, Prasad P. Phadnis, Vimal K. Jain, Michio Iwaoka and K. Indira Priyadarsini

Stable selone formation in 2,2'-diselenobis-[3-amidopyridine], reduces unwanted sulfur exchange reaction in glutathione peroxidase like catalytic cycle and enhances its enzyme activity.

2413



Acyclic $CB[n]$ -type molecular containers: effect of solubilizing group on their function as solubilizing excipients

Ben Zhang, Peter Y. Zavalij and Lyle Isaacs*

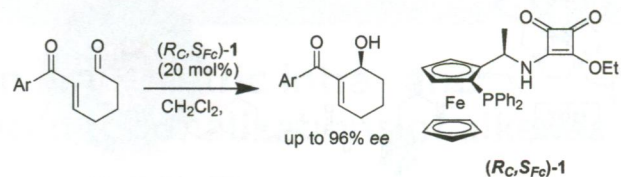
Acyclic $CB[n]$ -type receptors with sulfonate solubilizing groups function best as hosts for soluble guests and solubilizing agents for insoluble drugs.

2423

Bifunctional ferrocene-based squaramide-phosphine as an organocatalyst for highly enantioselective intramolecular Morita–Baylis–Hillman reaction

Xiaorui Zhang, Pengfei Ma, Dongxu Zhang, Yang Lei, Shengyong Zhang, Ru Jiang* and Weiping Chen*

Ferrocene is an excellent scaffold for organocatalysts. Bifunctional ferrocene-based phosphine (R_C, S_{Fc})-**1** shows high enantioselectivity in the intramolecular Morita–Baylis–Hillman reaction of 7-aryl-7-oxo-5-heptenals.

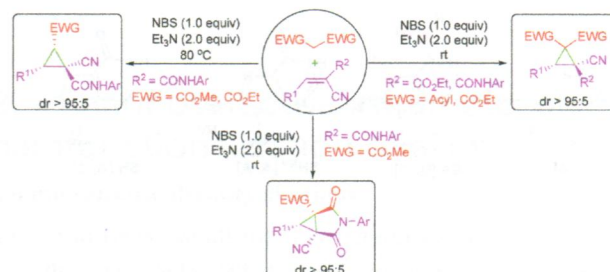


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Tandem halogenation/Michael-initiated ring-closing reaction of α,β -unsaturated nitriles and activated methylene compounds: one-pot diastereoselective synthesis of functionalized cyclopropanes

Xiaoqing Xin, Qian Zhang, Yongjiu Liang,* Rui Zhang and Dewen Dong*

One-pot diastereoselective synthesis of cyclopropanes is developed from α,β -unsaturated nitriles and doubly activated methylene compounds under very mild conditions.

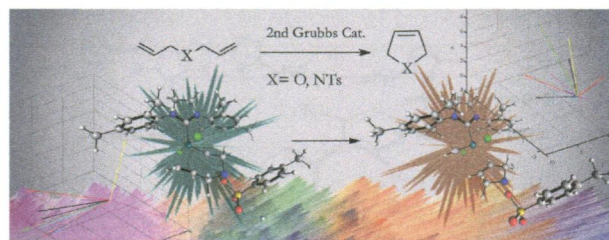


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The issue of 'molecular radiators' in microwave-assisted reactions. Computational calculations on ring closing metathesis (RCM)

A. M. Rodriguez, P. Prieto,* A. de la Hoz, A. Díaz-Ortiz and J. I. García

Computational calculations on ring closing metathesis clarify the influence of molecular radiators in Microwave Assisted Organic Synthesis (MAOS).

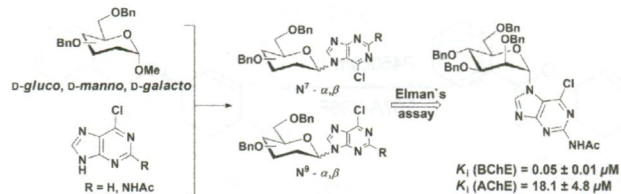


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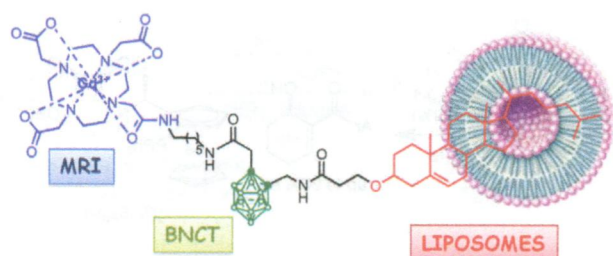
Microwave-assisted synthesis of novel purine nucleosides as selective cholinesterase inhibitors

S. Schwarz, R. Csuk and A. P. Rauter*

A series of new purine nucleosides bearing D -glucosyl, D -mannosyl and D -galactosyl groups was synthesized. Selective inhibition of butyryl- or acetylcholinesterase could be tuned by purine substitution and glycosyl moiety. The 2-acetamidopurine nucleoside exhibiting a D -mannosyl group, α -configuration and N^7 -ligation was the most active and selective competitive inhibitor of butyrylcholinesterase.



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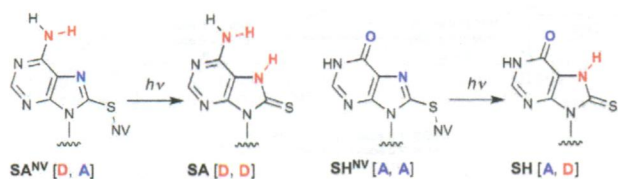


Synthesis of a carborane-containing cholesterol derivative and evaluation as a potential dual agent for MRI/BNCT applications

Diego Alberti, Antonio Toppino, Simonetta Geninatti Crich,* Chiara Meraldi, Cristina Prandi, Nicoletta Protti, Silva Bortolussi, Saverio Altieri, Silvio Aime and Annamaria Deagostino

A new dual imaging and therapeutic agent is proposed to improve the efficacy of boron neutron capture therapy in cancer treatment.

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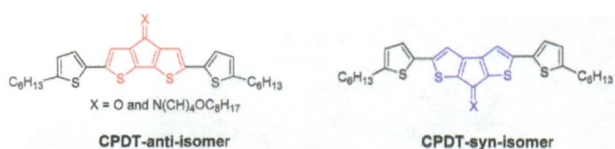


Photoinduced changes in hydrogen bonding patterns of 8-thiopurine nucleobase analogues in a DNA strand

Kunihiko Morihiro, Tetsuya Kodama, Shohei Mori and Satoshi Obika*

Photoinduced changes in hydrogen bonding patterns have a strong effect on base recognition by nucleobase analogues.

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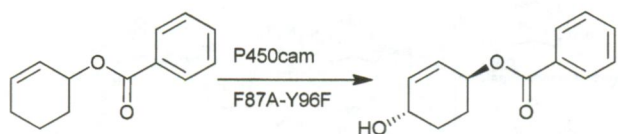


The effect of heteroatom conformation on optoelectronic properties of cyclopentadithiophene derivatives

Sompit Wanwong, Ambata Poe, Ganapathy Balaji and S. Thayumanavan*

Cyclopentadithiophene (CPDT) derivatives with different heteroatom conformations have been synthesized.

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Selective aliphatic carbon–hydrogen bond activation of protected alcohol substrates by cytochrome P450 enzymes

Stephen G. Bell,* Justin T. J. Spence, Shenglan Liu, Jonathan H. George and Luet-Lok Wong

Protected cyclohexanol and cyclohex-2-enol substrates were efficiently and selectively oxidised by different P450cam mutants providing a general methodology for generating substituted diols using biocatalysts.