

Tetrahedron Letters Vol. 51, No. 30, 2010

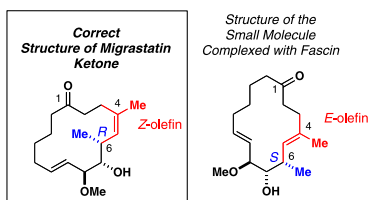
Contents

COMMUNICATIONS

Confirmation of the structures of synthetic derivatives of migrastatin in the light of recently disclosed crystallographically based claims

pp 3873–3875

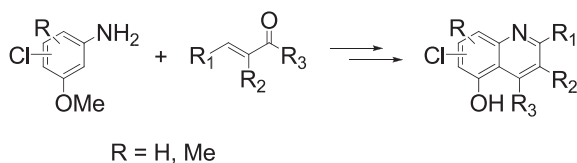
Pavel Nagorny, Isaac Krauss, Jón T. Njardarson, Lucy Perez, Christoph Gaul, Guangli Yang, Ouathek Ouerfelli, Samuel J. Danishefsky\*



Synthesis of 5-hydroxyquinolines

pp 3876–3878

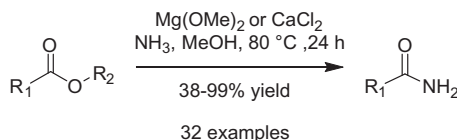
Jianke Li, Daniel W. Kung, David A. Griffith\*



Amidation of esters assisted by Mg(OCH<sub>3</sub>)<sub>2</sub> or CaCl<sub>2</sub>

pp 3879–3882

Mark W. Bundesmann, Steven B. Coffey, Stephen W. Wright\*

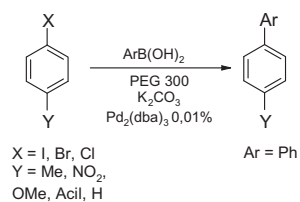


Magnesium methoxide (Mg(OCH<sub>3</sub>)<sub>2</sub>) and calcium chloride have been shown to facilitate the direct aminolysis of esters by ammonia to primary amides.

**Ligand-free Suzuki–Miyaura reactions in PEG 300**

pp 3883–3885

Aires da Conceição Silva, Jaqueline Dias Senra, Lucia C. S. Aguiar, Alessandro B. C. Simas, Andréa Luzia F. de Souza\*, Luiz Fernando Brum Malta, O. A. C. Antunes

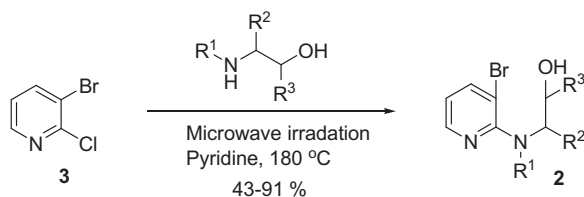


A ligand-free Suzuki–Miyaura reaction for the cross-coupling of aryl halides with aryl boronic acids has been developed utilizing polyethylene glycol 300 (PEG 300) and  $\text{Pd}_2(\text{dba})_3$  0.01%. This system afforded the corresponding cross-coupled products in good to excellent isolated yields and TONs after a simple workup.

**Microwave-assisted amination of 3-bromo-2-chloropyridine with various substituted aminoethanols**

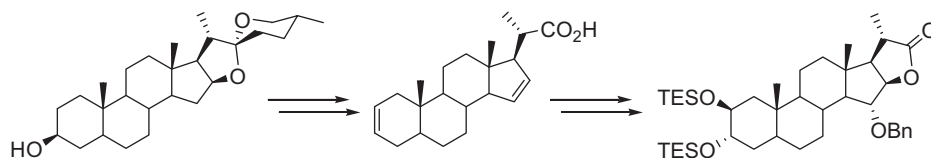
pp 3886–3889

Jeong Geun Kim, Eun Hae Yang, Woo Sup Youn, Ji Won Choi, Deok-Chan Ha, Jae Du Ha\*

**A concise synthesis of the steroidal core of clathsterol**

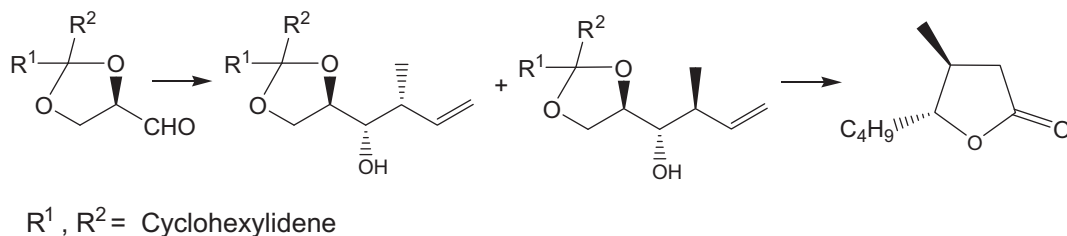
pp 3890–3892

Rigang Cong, Yihua Zhang\*, Weisheng Tian\*

**Crotylation of (R)-2,3-O-cyclohexyleneglyceraldehyde: a simple synthesis of (+)-trans-oak lactone**

pp 3893–3896

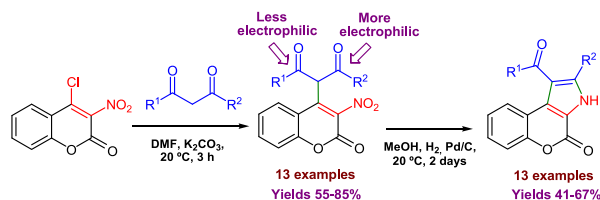
Angshuman Chattopadhyay\*, Dibakar Goswami, Bhaskar Dhotare



**Synthesis of chromeno[3,4-*b*]pyrrol-4(3*H*)-ones by cyclocondensation of 1,3-dicarbonyl compounds with 4-chloro-3-nitrocoumarin**

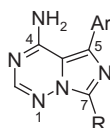
pp 3897–3898

Muhammad Zeeshan, Viktor O. Iaroshenko\*, Sergii Dudkin, Dmitriy M. Volochnyuk, Peter Langer\*

**Synthetic approaches to 5,7-disubstituted imidazo[5,1-*f*][1,2,4]triazin-4-amines**

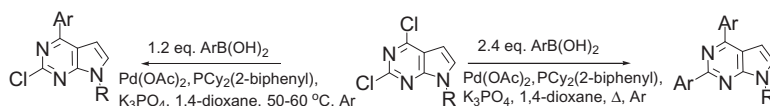
pp 3899–3901

Douglas S. Werner\*, Hanqing Dong\*, Mridula Kadalbajoo, Radoslaw S. Laufer, Paula A. Tavares-Greco, Brian R. Volk, Mark J. Mulvihill, Andrew P. Crew

**Synthesis and photophysical properties of oligoarylenes with a pyrrolo[2,3-*d*]pyrimidine core**

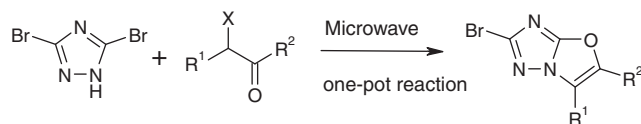
pp 3902–3906

Sigitas Tumkevicius\*, Jelena Dodonova, Karolis Kazlauskas, Viktoras Masevicius, Lina Skardziute, Saulius Jursenas

**[1,3]Oxazolo[3,2-*b*][1,2,4]triazoles: a versatile synthesis of a novel heterocycle**

pp 3907–3909

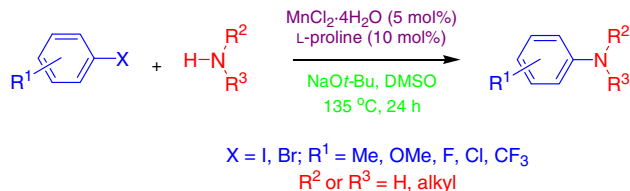
Catherine Ball, David K. Dean\*, Olivier Lorthioir, Lee W. Page, Charlotte L. Smith, Stephen P. Watson

An efficient one-pot microwave approach for the synthesis of novel [1,3]oxazolo[3,2-*b*][1,2,4]triazoles is described.

**Manganese-catalyzed cross-coupling reactions of aliphatic amines with aryl halides**

pp 3910–3912

Fui-Fong Yong, Yong-Chua Teo\*

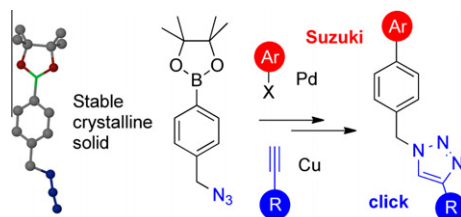


An efficient and convenient protocol has been developed for the N-arylation of aliphatic amines with differently substituted aryl halides using a MnCl<sub>2</sub>·4H<sub>2</sub>O/L-proline catalyst and NaOt-Bu as the base in DMSO.

**A modular approach to catalytic synthesis using a dual-functional linker for Click and Suzuki coupling reactions**

pp 3913–3917

James R. White, Gareth J. Price, Stefanie Schiffers, Paul R. Raithby, Pawel K. Plucinski, Christopher G. Frost\*

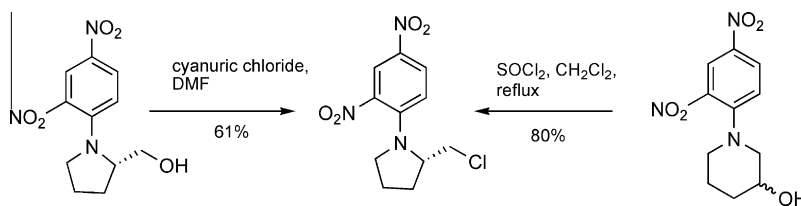


The utility of a bench-stable azido-boronate motif as a useful modular building block is demonstrated in the rapid synthesis of drug-like structures employing sequential catalytic azide-alkyne cycloaddition and Suzuki coupling reactions.

**An unexpected ring contraction of two nitroaryl pro-drugs: conversion of N-(nitroaryl)-3-chloropiperidine derivatives into N-(nitroaryl)-2-chloromethylpyrrolidines**

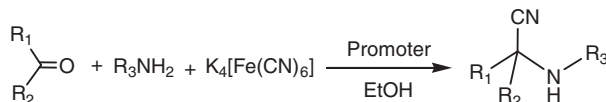
pp 3918–3921

Philip J. Burke, Lai Chun Wong, William Clegg, Ross W. Harrington, Terence C. Jenkins, Richard J. Knox, Ian T. Meikle, Stephen P. Stanforth\*

**One-pot three-component synthesis of α-aminonitriles using potassium hexacyanoferrate(II) as an eco-friendly cyanide source**

pp 3922–3926

Zheng Li\*, Yuanhong Ma, Jun Xu, Jinghong Shi, Hongfang Cai

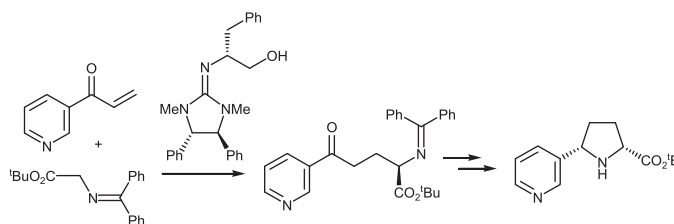


An efficient and environmentally friendly method has been developed for the synthesis of α-aminonitriles via one-pot three-component condensation of carbonyl compounds, amines, and potassium hexacyanoferrate(II) in the presence of benzoyl chloride as a promoter.

**Access to the nicotine system by application of a guanidine-catalyzed asymmetric Michael addition of diphenyliminoacetate with 3-pyridyl vinyl ketone**

pp 3927–3930

Gang Zhang, Takuya Kumamoto, Takashi Heima, Tsutomu Ishikawa\*



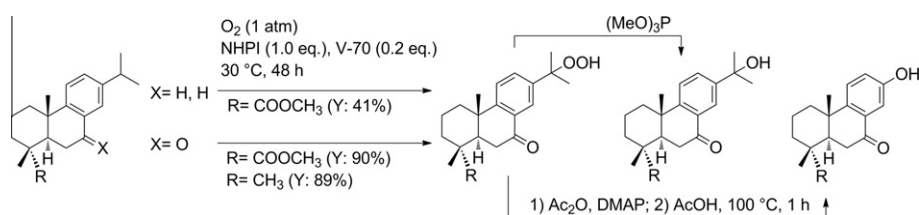
A guanidine-based chiral organocatalyst was applied to the Michael addition of diphenyliminoacetate to pyridyl vinyl ketone as a key reaction for the construction of the nicotine system.



**Aerobic oxidation of 8,11,13-abietatrienes catalyzed by *N*-hydroxyphthalimide combined with 2,2'-azobis(4-methoxy-2,4-dimethylvaleronitrile) and its application to synthesis of naturally occurring diterpenes**

pp 3931–3934

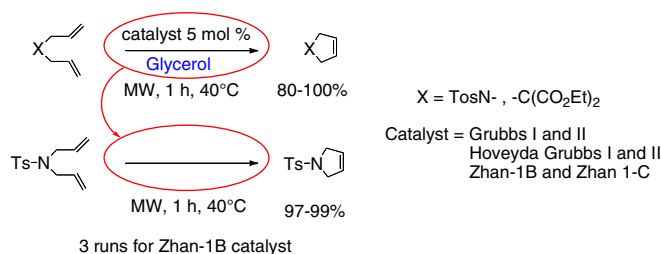
Yoh-ichi Matsushita\*, Kazuhiro Sugamoto, Yoshihisa Iwakiri, Satoru Yoshida, Takehito Chaen, Takanao Matsui



**Ring-closing metathesis in glycerol under microwave activation**

pp 3935–3937

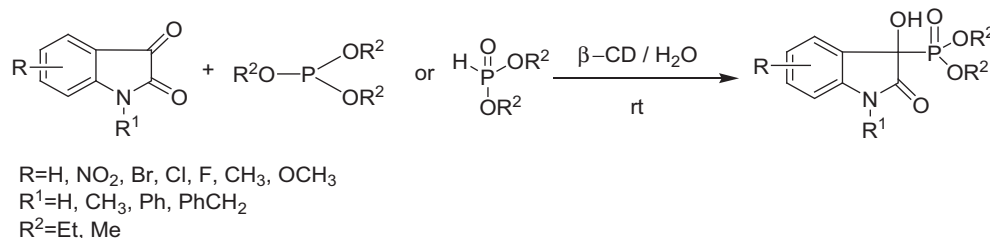
Naoual Bakhrou, Frédéric Lamaty, Jean Martinez, Evelina Colacino\*



**Novel aqueous phase supramolecular synthesis of  $\alpha^1$ -oxindole- $\alpha$ -hydroxyphosphonates**

pp 3938–3939

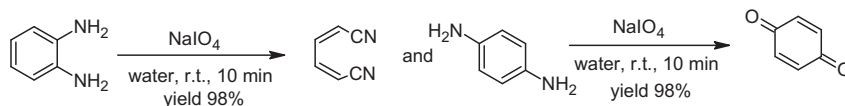
J. Shankar, K. Karnakar, B. Srinivas, Y. V. D. Nageswar\*



**Carbon–carbon cleavage of aryl diamines and quinone formation using sodium periodate: a novel application**

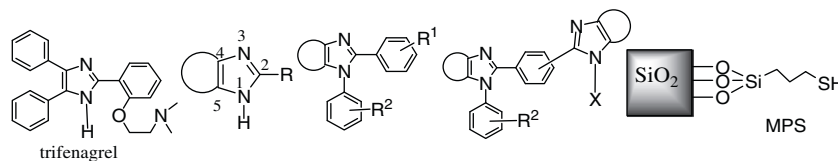
pp 3940–3943

Vikas N. Telvekar\*, Balaram S. Takale

**Room temperature synthesis of tri-, tetrasubstituted imidazoles and bis-analogues by mercaptopropylsilica (MPS) in aqueous methanol: application to the synthesis of the drug trifenagrel**

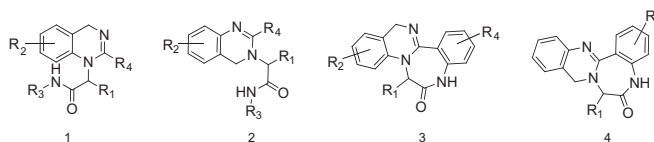
pp 3944–3950

Chhanda Mukhopadhyay\*, Pradip Kumar Tapaswi, Michael G. B. Drew

**Concise two-step solution phase syntheses of four novel dihydroquinazoline scaffolds**

pp 3951–3955

Justin Dietrich, Christine Kaiser, Nathalie Meurice, Christopher Hulme\*

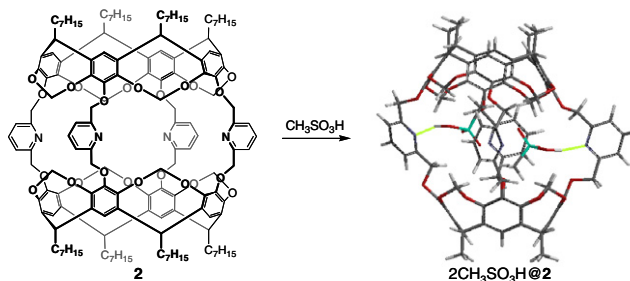


Novel two-step solution phase protocols for the synthesis of dihydroquinazolines and fused dihydroquinazoline-benzodiazepine tetracycles are reported. The methodology employs the Ugi reaction to assemble the desired diversity and acid treatment enables ring-closing transformations. The protocols are further facilitated by the use of microwave irradiation and *n*-butyl isocyanide to control the rate of each ring-forming transformation.

**Guest recognition of a tetrapyrridinohemicarcerand through hydrogen bonding and constrictive binding interactions**

pp 3956–3959

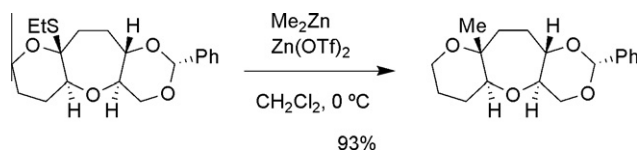
Yeon Sil Park, Hee Soo Park, Tae-Young Chang, Kyungsoo Paek\*



**A new method for the stereoselective construction of angular methyl group of fused cyclic ethers**

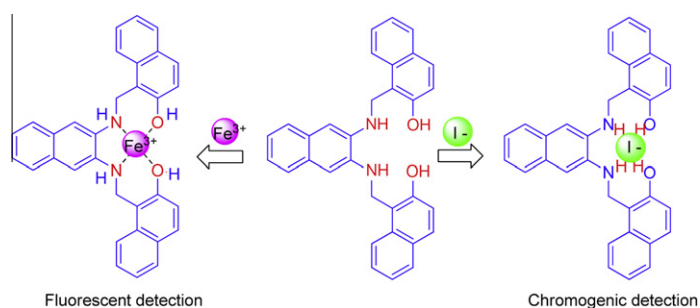
pp 3960–3961

Isao Kadota\*, Takayuki Kishi, Yuka Fujisawa, Yuji Yamagami, Hiroyoshi Takamura

**Single sensor for multiple analytes: chromogenic detection of  $\text{I}^-$  and fluorescent detection of  $\text{Fe}^{3+}$** 

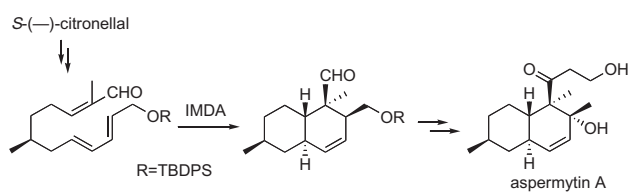
pp 3962–3965

Hee Jung Jung, Narinder Singh, Doo Youn Lee, Doo Ok Jang\*

**Total synthesis of (+)-aspermytin A**

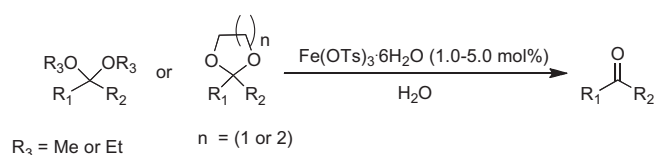
pp 3966–3968

Atsushi Inoue, Makoto Kanematsu, Masahiro Yoshida, Kozo Shishido\*

**Iron(III) tosylate-catalyzed deprotection of aromatic acetals in water**

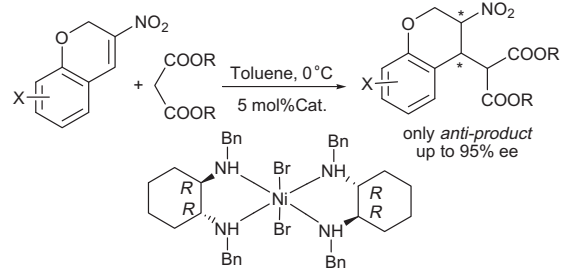
pp 3969–3971

Margaret E. Olson, James P. Carolan, Michael V. Chiodo, Phillip R. Lazzara, Ram S. Mohan\*



### Enantioselective Michael reaction of 1,3-dicarbonyl compounds to 3-nitro-2H-chromenes catalyzed by chiral nickel complexes pp 3972–3974

Wei-Yi Chen\*, Luo Ouyang, Rui-Ye Chen, Xin-Sheng Li\*

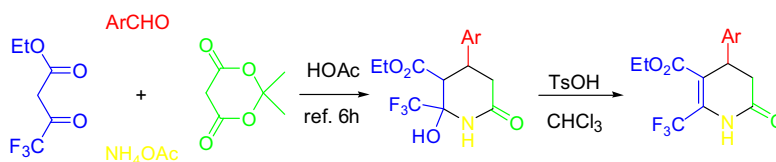


A chiral nickel complexes-catalyzed enantioselective Michael addition of 1,3-dicarbonyl compounds to 3-nitro-2H-chromenes has been developed; the products could be obtained in high yields and good enantioselectivities.



### Convenient one-pot synthesis of fluorinated DHPs derivatives and their further transformations pp 3975–3977

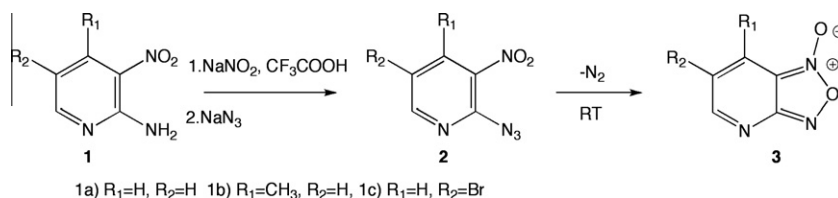
Pengyuan Wang, Liping Song\*, Hai Yi, Min Zhang, Shizheng Zhu\*, Hongmei Deng, Min Shao



An efficient and convenient one-pot four-component synthesis of fluorinated DHPs in good yields is described. The key step involves a tandem Michael addition-intramolecular cyclization process from easily available starting materials.

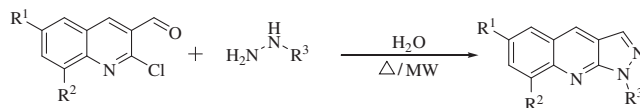
### Spontaneous conversion of 2-azido-3-nitropyridines to pyridofuroxans pp 3978–3979

Elisa Leyva\*, Denisse de Loera, Rogelio Jiménez-Cataño



### Water-mediated one-pot synthetic route for pyrazolo[3,4-b]quinolines pp 3980–3982

Jyotirling R. Mali, Umesh R. Pratap, Dhanaji V. Jawale, Ramrao A. Mane\*



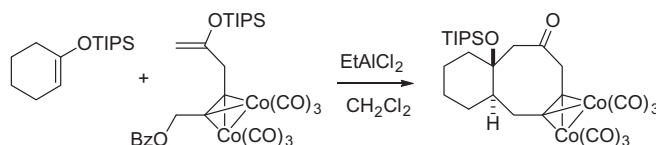
First time one-pot water-mediated synthetic route has been developed by carrying condensation of 2-chloro-3-formyl quinolines and hydrazine hydrate/phenyl hydrazine using thermal/microwave energy resources. The route is convenient, eco-friendly, and scalable.



**Cyclooctanone synthesis via a formal [6+2] cycloaddition reaction of a dicobalt acetylene complex**

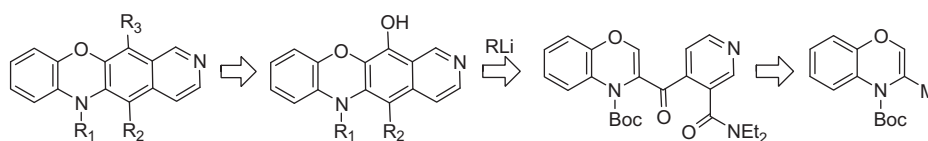
pp 3983–3986

Katsuhiko Mitachi, Tadashi Shimizu, Masaaki Miyashita, Keiji Tanino\*

**Synthesis and biological evaluation of novel benzoxazinic analogues of ellipticine**

pp 3987–3990

Deborah Mousset, Rémi Rabot, Pascal Bouyssou, Gérard Coudert, Isabelle Gillaizeau\*



\*Corresponding author

Supplementary data available via ScienceDirect

**COVER**

The cover shows a crystalline azido-boronate motif that can be used as a modular building block in the rapid synthesis of drug-like structures employing sequential catalytic azide-alkyne cycloaddition and Suzuki coupling reactions.

*Tetrahedron Letters*, **2010**, 51, 3913–3917.

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