

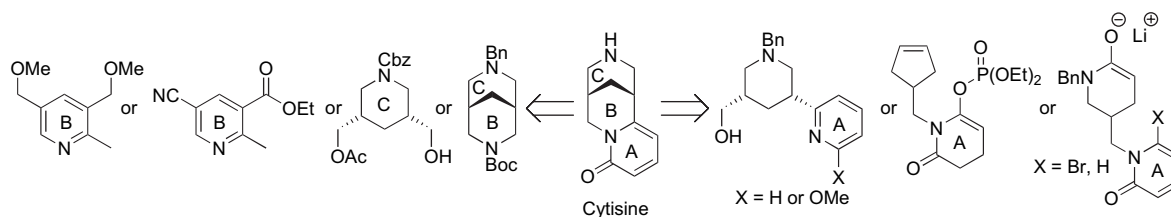
Contents

REPORT

Total synthesis of the lupin alkaloid cytisine: comparison of synthetic strategies and routes

pp 1885–1897

Darren Stead and Peter O'Brien*



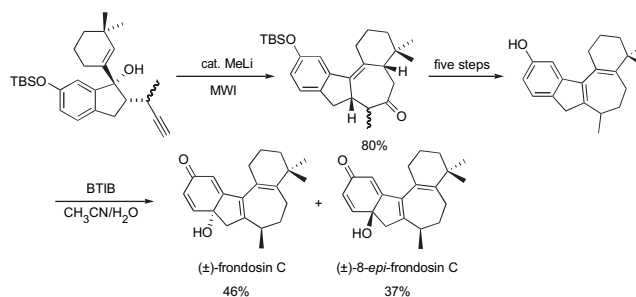
The strategies and routes used to synthesise the lupin alkaloid cytisine are reviewed.

ARTICLES

Total syntheses of (±)-frondosin C and (±)-8-*epi*-frondosin C via a tandem anionic 5-*exo* dig cyclization–Claisen rearrangement sequence

pp 1899–1906

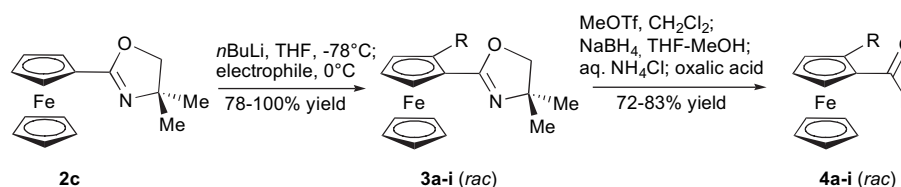
Xin Li, Robert E. Kyne and Timo V. Ovaska*



An efficient, general synthesis of racemic 2-substituted ferrocenecarboxaldehydes

pp 1907–1912

Jasón García, Albert Moyano* and Malgorzata Rosol

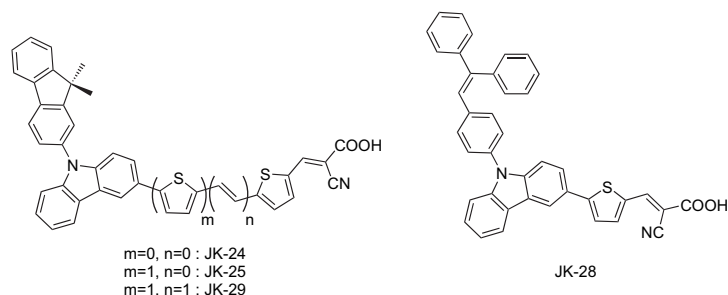


A straightforward, high-yielding, and versatile route to racemic 2-substituted ferrocenecarboxaldehydes has been developed.

Molecular engineering of organic dyes containing *N*-aryl carbazole moiety for solar cell

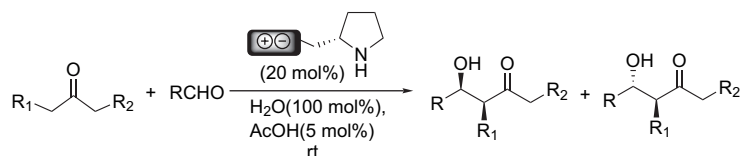
pp 1913–1922

Duckhyun Kim, Jae Kwan Lee, Sang Ook Kang* and Jaejung Ko*

**Functionalized ionic liquids catalyzed direct aldol reactions**

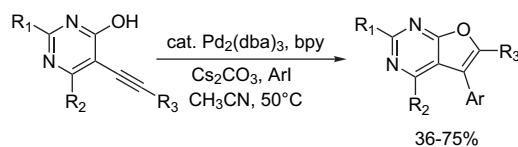
pp 1923–1930

Sanzhong Luo,* Xueling Mi, Long Zhang, Song Liu, Hui Xu and Jin-Pei Cheng*

**Synthesis of novel 5,6-substituted furo[2,3-*d*]pyrimidines via Pd-catalyzed cyclization of alkynylpyrimidinols with aryl iodides**

pp 1931–1936

Zhende Liu, Dewen Li, Shukun Li, Donglu Bai, Xuchang He and Youhong Hu*

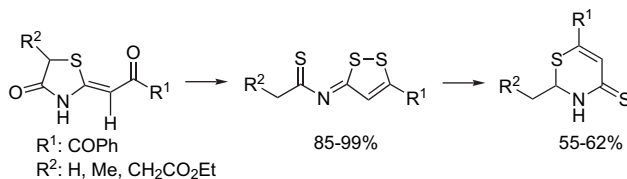


A flexible method for the synthesis of 5,6-disubstituted furo[2,3-*d*]pyrimidine derivatives is described. The key step is a palladium-catalyzed arylation cyclization of alkynylpyrimidinols with various aryl iodides, which gave the title compounds in 36–75% yield.

Regioselective synthesis of 1,3-thiazines by sequential 4-oxothiazolidine to 1,2-dithiole to 1,3-thiazine transformations: role of intramolecular non-bonded S···O interactions

pp 1937–1945

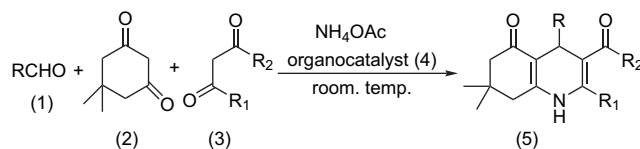
Aleksandar Rašović, Peter J. Steel, Erich Kleinpeter and Rade Marković*



Synthesis of polyhydroquinoline derivatives through unsymmetric Hantzsch reaction using organocatalysts

pp 1946–1952

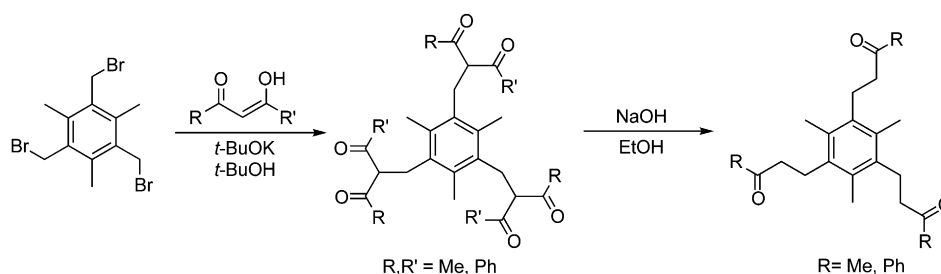
Atul Kumar* and Ram Awatar Maurya



Tris- β -diketones and related keto derivatives for use as building blocks in supramolecular chemistry

pp 1953–1958

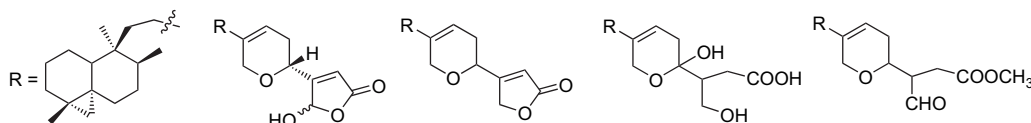
David J. Bray, Katrina A. Jolliffe,* Leonard F. Lindoy and John C. McMurtrie



Minor cacospongionolide derivatives from the sponge *Fasciospongia cavernosa*

pp 1959–1962

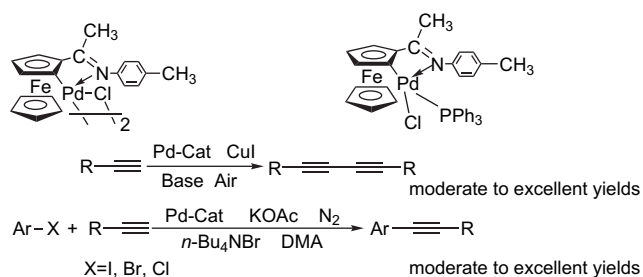
Salvatore De Rosa,* Sabina Carbonelli and Carmine Iodice



Cyclopalladated ferrocenylimines: efficient catalysts for homocoupling and Sonogashira reaction of terminal alkynes

pp 1963–1969

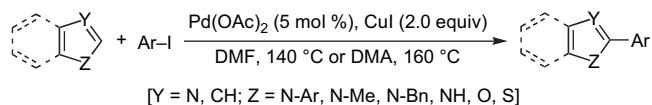
Fan Yang, Xiuling Cui, Ya-nan Li, Jinli Zhang, Ge-rui Ren and Yangjie Wu*



Efficient and highly regioselective direct C-2 arylation of azoles, including free (NH)-imidazole, -benzimidazole and -indole, with aryl halides

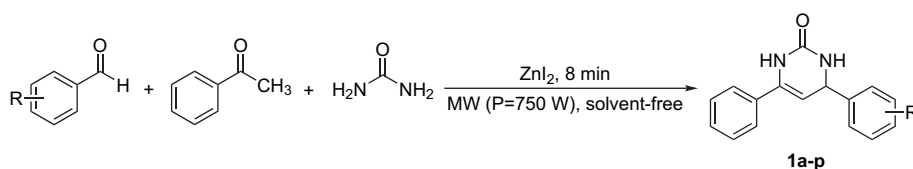
pp 1970–1980

Fabio Bellina,* Chiara Calandri, Silvia Cauteruccio and Renzo Rossi*


New three-component cyclocondensation reaction: microwave-assisted one-pot synthesis of 5-unsubstituted-3,4-dihydropyrimidin-2(1H)-ones under solvent-free conditions

pp 1981–1986

Bing Liang, Xitian Wang, Jin-Xian Wang* and Zhengyin Du



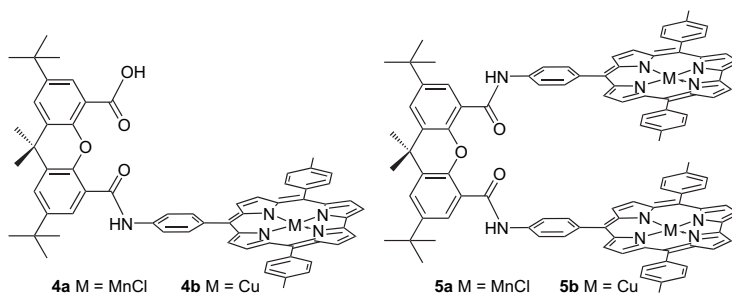
R=H; 3-CH₃O; 4-Cl; 2,6-Dichloro; 2,4-Dichloro; 3-Br; 4-OH; 3-CH₃O-4-OH; 2-CH₃O; 4-(CH₃)₃C; 3,5-Dibromo-4-OH; 4-CH₃; 4-CH₃O; 3,4-Dimethoxy; 2-Cl; 4-CHO.

Synthesis and characterization of manganese and copper corrole xanthene complexes as catalysts for water oxidation

pp 1987–1994

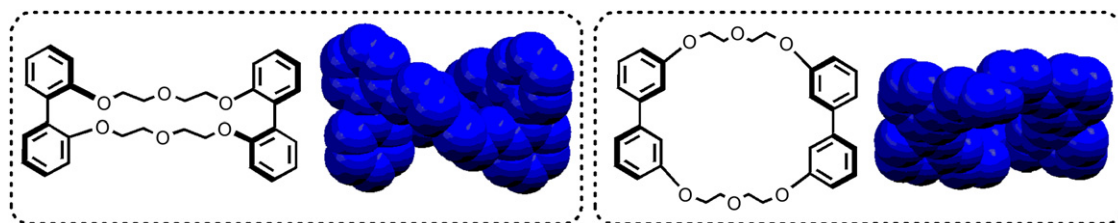
Yan Gao, Jianhui Liu,* Mei Wang, Yong Na, Björn Åkermark and Licheng Sun*

Two corrole xanthene ligands and four corresponding Mn^{IV} and Cu^{III} complexes were designed as bio-inspired models for the oxygen evolving complex (OEC) in Photosystem II. We find that both manganese complexes **4a** and **5a** have efficiency on catalyzing oxygen evolution at low potential (about 0.80 V) by electrochemical method.


Axial structures of biphenyl compounds linked by diethyl ether chains

pp 1995–1999

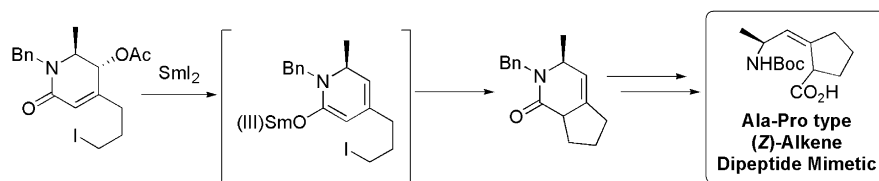
Yoshitane Imai,* Junichi Kitazawa, Tomohiro Sato, Nobuo Tajima, Reiko Kuroda, Yoshio Matsubara* and Zen-ichi Yoshida*



Synthesis of (Z)-alkene-containing *cis*-proline dipeptide mimetics using samarium(II) diiodide (SmI_2)-mediated reductive alkylation reaction

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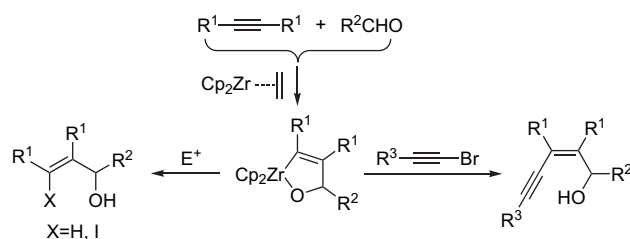
Yoshikazu Sasaki, Akira Shigenaga, Nobutaka Fujii and Akira Otaka*



Studies on the zirconium-mediated alkyne–aldehyde coupling reactions: a facile synthesis of stereodefined allylic alcohols and (Z)-2-en-4-yn-1-ols

pp 2009–2018

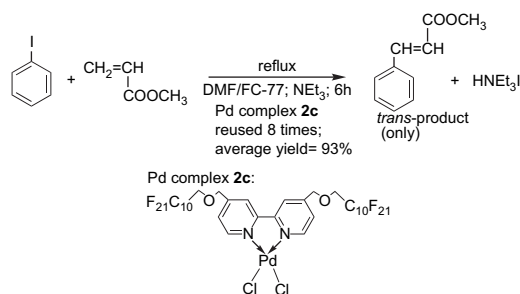
Shenghai Guo, Hao Zhang, Feijie Song and Yuanhong Liu*



New bis(fluoro-ponytailed) bipyridine ligands for Pd-catalyzed Heck reactions under fluoros biphasic catalysis condition

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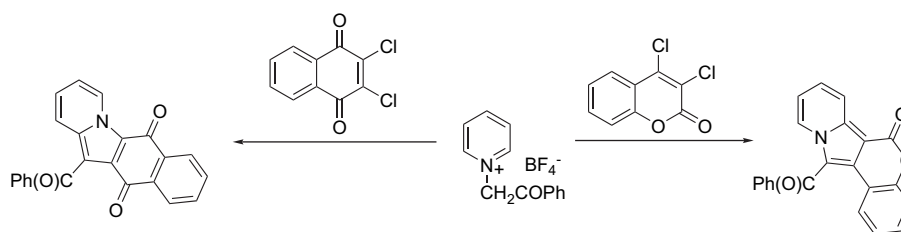
Norman Lu,* Yan-Chou Lin, Jeng-Yung Chen, Chi-Wen Fan and Ling-Kang Liu



Synthesis of polycyclic indolizine derivatives via one-pot tandem reactions of *N*-ylides with dichloro substituted α,β -unsaturated carbonyl compounds

pp 2024–2033

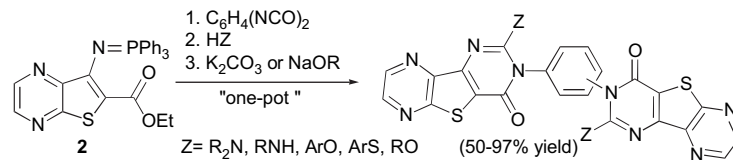
Yun Liu, Hua-You Hu, Qing-Jian Liu, Hong-Wen Hu and Jian-Hua Xu*



Efficient one-pot preparation of bis(pyrazino[2',3':4,5]thieno[3,2-d]pyrimidin-4-yl)benzenes based on an aza-Wittig/mediated annulation strategy

pp 2034–2041

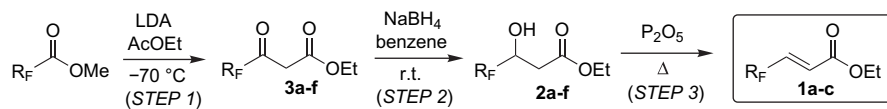
Gerardo Blanco, José M. Quintela* and Carlos Peinador*



Studies on a three-step preparation of β -fluoroalkyl acrylates from fluoroacetic esters

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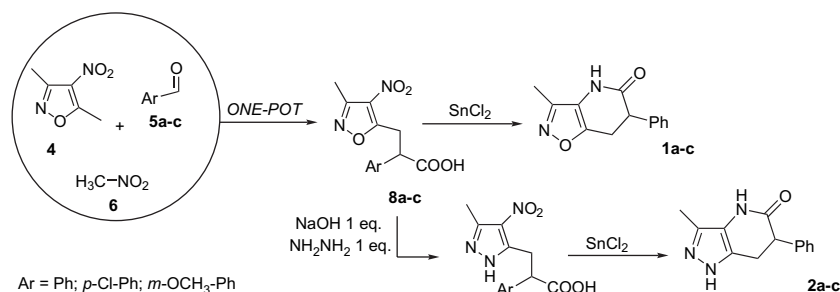
Monika Jagodzinska, Florent Huguenot* and Matteo Zanda*

R_F = (a) CF₃, (b) CHF₂, (c) C₂F₅, (d) CClF₂, (e) CBrF₂, (f) ClF₂

Modular synthesis of isoxazopyridones and pyrazolopyridones

pp 2047–2052

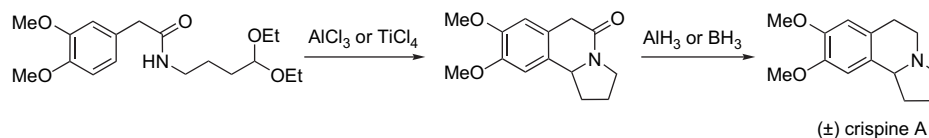
Mauro F. A. Adamo,* Eleanor F. Duffy, Donato Donati and Piero Sarti-Fantoni



A facile three-step synthesis of (\pm)-crispine A via an acyliminium ion cyclisation

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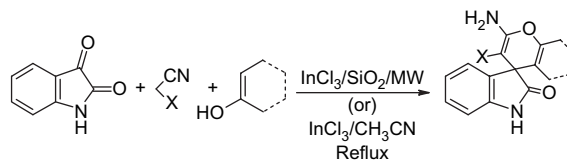
Frank D. King



A new InCl_3 -catalyzed, facile and efficient method for the synthesis of spirooxindoles under conventional and solvent-free microwave conditions

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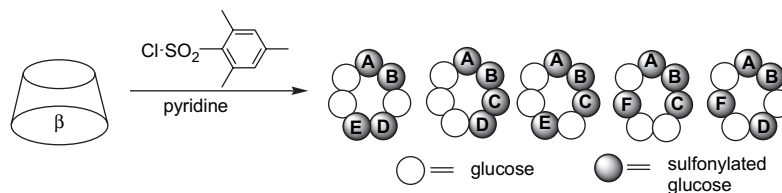
Gnanamani Shanthi, Ganesan Subbulakshmi and Paramasivan T. Perumal*



Polysulfonylated cyclodextrins. Part 13: Chemistry of cyclomaltoheptaose tetrasulfonates providing a complete 6-*O*-sulfonylated cyclomaltoheptaoses library

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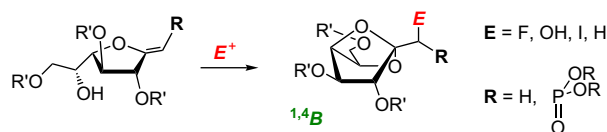
Hatsuo Yamamura,* Hironori Tashiro, Jumpei Kawasaki, Koji Kawamura and Kawai Masao



Synthesis of galactosides locked in a ${}^{1,4}B$ boat conformation and functionalized at the anomeric position

pp 2070–2077

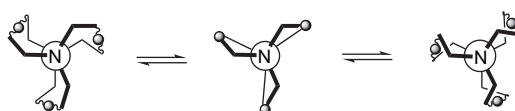
Audrey Caravano, Diane Baillieul, Christophe Ansiaux, Weidong Pan, José Kovensky, Pierre Sinaÿ and Stéphane P. Vincent*



Macrobicyclic triphosphazides and tri- λ^5 -phosphazenes derived from $\text{PhC}(\text{CH}_2\text{PPh}_2)_3$. Two propeller-shaped diastereoisomers in the crystals

pp 2078–2083

Mateo Alajarín,* Carmen López-Leonardo,* José Berná and Jonathan W. Steed

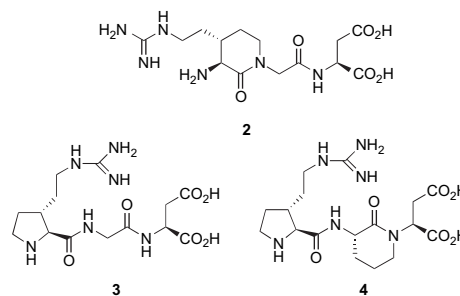


Synthesis of conformationally constrained analogues of RGD tripeptide

pp 2084–2092

Sukeerthi Kumar, Qian Wang and N. André Sasaki*

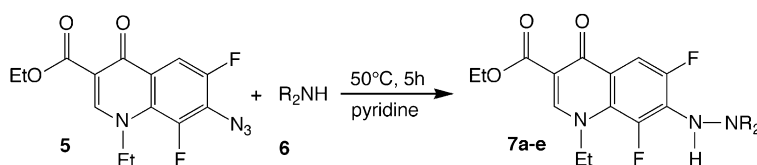
Convergent syntheses of *N*-functionalized (3*S*,4*S*)-3-amino-4-vinyl-piperidin-2-one **10**, *trans*-3-substituted proline **18** and (3*S*)-3-amino-piperidin-2-one **28** are developed. By incorporating these building blocks to an appropriate position, conformationally constrained analogues of RGD tripeptide Arg-Gly-Asp **2**, **3** and **4** are designed and synthesized.



Thermochemical reaction of 7-azido-1-ethyl-6,8-difluoroquinolone-3-carboxylate with heterocyclic amines. An expeditious synthesis of novel fluoroquinolone derivatives

pp 2093–2097

Socorro Leyva and Elisa Leyva*



Heterocyclic amines: R_2NH : **6a**: 5-fluorouracil, 54%; **6b**: uracil, 51%; **6c**: 5-aminouracil, 56%; **6d**: 2-aminopyrimidine, 50%; **6e**: 3,5-diamino-1,2,4-triazole, 57%.

*Corresponding author

Supplementary data available via ScienceDirect



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