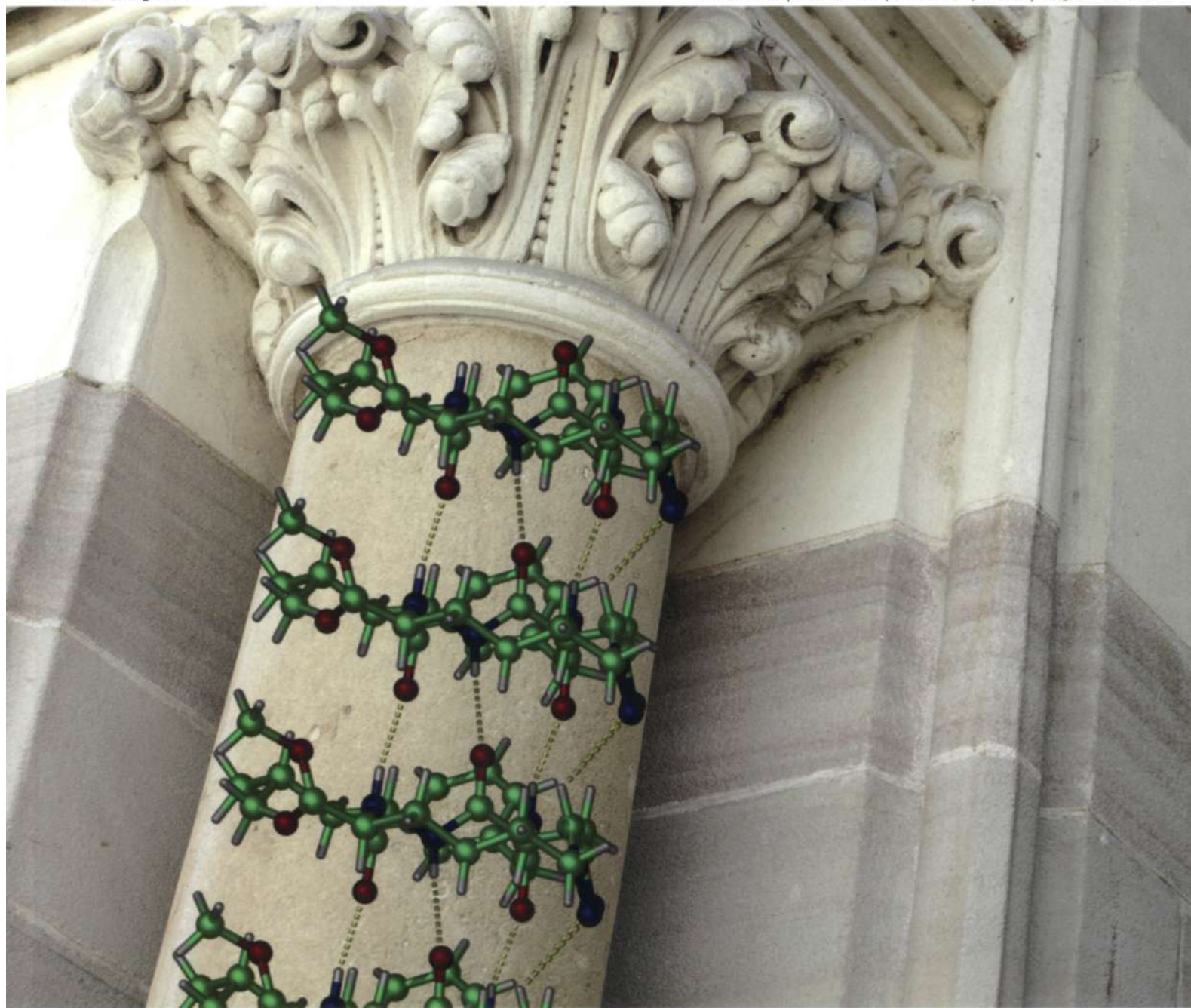


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PAPER

Andrew D. Abell *et al.*

New cylindrical peptide assemblies defined by extended parallel β -sheets



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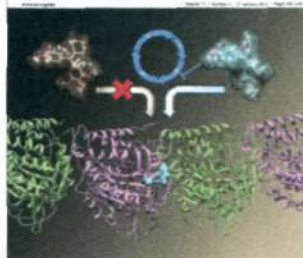


Cover

See Andrew D. Abell *et al.*, pp. 425–429.

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Organic & Biomolecular Chemistry



Inside cover

See Abdallah Hamze, Mouad Alami *et al.*, pp. 430–442.

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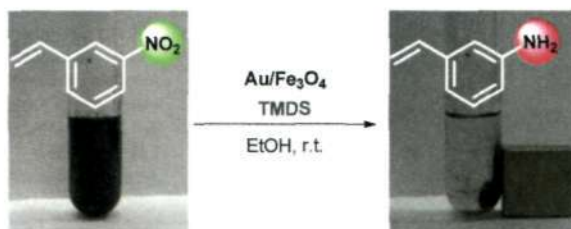
COMMUNICATIONS

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A magnetically separable gold catalyst for chemoselective reduction of nitro compounds

Sungho Park, In Su Lee and Jaiwook Park*

A magnetically separable gold-nanoparticle catalyst was prepared with ferrous sulfate and chloroauric acid without any additional reductant in a one-pot procedure. The gold catalyst showed excellent activity for the chemoselective reduction of various nitroarenes with hydrosilanes into aniline derivatives.

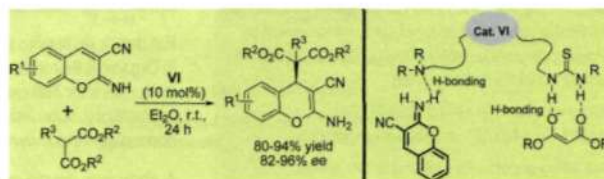


400

Organocatalytic conjugate addition promoted by multi-hydrogen-bond cooperation: access to chiral 2-amino-3-nitrile-chromenes

Wenjun Li, Jiayao Huang and Jian Wang*

A new efficient enantioselective conjugate addition method has been disclosed to rapidly construct 2-amino-3-nitrile-chromene complexes via a multi-hydrogen-bond cooperative activation model.



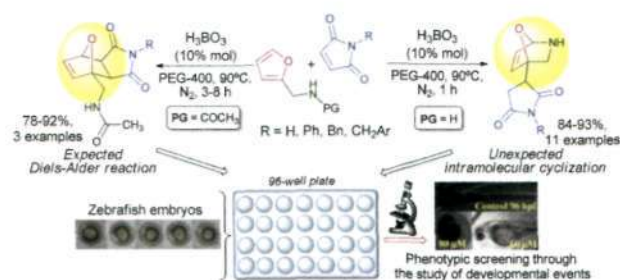
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Университета имени
Сергейя Чернышевского
Российской академии наук (ИДБ УИО РАН)

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An unexpected formation of the novel 7-oxa-2-azabicyclo[2.2.1]hept-5-ene skeleton during the reaction of furfurylamine with maleimides and their bioprospection using a zebrafish embryo model

Carlos E. Puerto Galvis and Vladimir V. Kouznetsov*

An unexpected intramolecular cyclization during the reaction of furfurylamine with maleimides is reported as a novel strategy for the efficient green synthesis of the 7-oxa-2-azabicyclo[2.2.1]hept-5-ene skeleton.

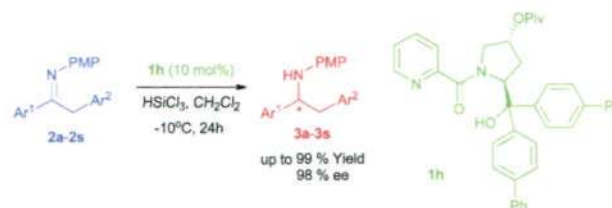


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Highly enantioselective hydrosilylation of *N*-(1,2-diarylethylidene)arylamines

Yongsheng Zheng, Zhouyang Xue, Lixin Liu, Chang Shu, Weicheng Yuan and Xiaomei Zhang*

Lewis base promoted enantioselective hydrosilylation of *N*-(1,2-diarylethylidene)arylamines provided various 1,2-diarylethanamines with good yields in good enantioselectivities.

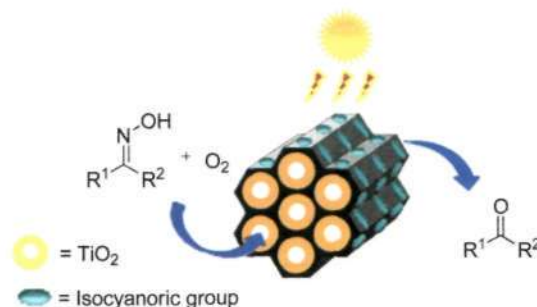


416

Amorphous TiO₂ coated into periodic mesoporous organosilicate channels as a new binary photocatalyst for regeneration of carbonyl compounds from oximes under sunlight irradiation

Sedigheh Abedi, Babak Karimi,* Foad Kazemi, Mihnea Bostina and Hojatollah Vali

A new photocatalyst was prepared by incorporation of amorphous titania into the mesochannels of a PMO bearing photoresponsive isocyanurate species.



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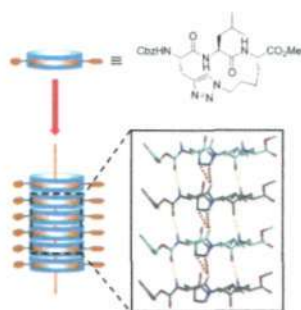
An efficient tandem elimination–cyclization–desulfitative arylation of 2-(*gem*-dibromovinyl)phenols(thiophenols) with sodium arylsulfonates

Wei Chen, Pinhua Li, Tao Miao, Ling-Guo Meng* and Lei Wang*

2-Arylbenzofurans(thiophenes) were prepared through one-pot elimination–cyclization–desulfitative arylation of 2-(*gem*-dibromovinyl)phenols(thiophenols) with sodium arylsulfonates in the presence of TBAF–PdCl₂–Cu(OAc)₂–NEt₃.



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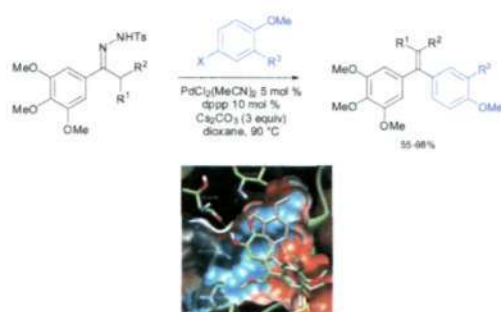


New cylindrical peptide assemblies defined by extended parallel β -sheets

Ashok D. Pehere, Christopher J. Sumby and Andrew D. Abell*

A peptide-based macrocycle preorganised into a β -strand geometry templates the formation of a non-covalent nanotubular structure.

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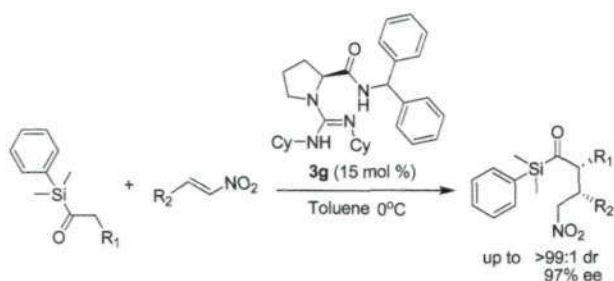


Synthesis, biological evaluation, and structure–activity relationships of tri- and tetrasubstituted olefins related to isocombretastatin A-4 as new tubulin inhibitors

Jessy Aziz, Etienne Brachet, Abdallah Hamze,* Jean-François Peyrat, Guillaume Bernadat, Estelle Morvan, Jérôme Bignon, Joanna Wdzieczak-Bakala, Déborah Desravines, Joelle Dubois, Marie Tueni, Ahmad Yassine, Jean-Daniel Brion and Mouad Alami*

Synthesis and antiproliferative activity of tri- and tetrasubstituted 1,1-diarylolefins related to isocombretastatin A-4 are reported.

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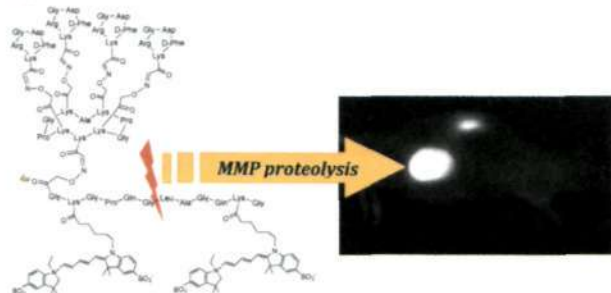


Organocatalytic asymmetric Michael reaction with acylsilane donors

Lei Wu, Guangxun Li, Qingquan Fu, Luoting Yu and Zhuo Tang

α -Alkylation of acylsilanes with a chiral guanidine catalyst to afford Michael products in good yield and high stereoselectivity.

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Integrin and matrix metalloprotease dual-targeting with an MMP substrate–RGD conjugate

Christiane H. F. Wenk, Véronique Josserand, Pascal Dumy, Jean-Luc Coll* and Didier Boturyn*

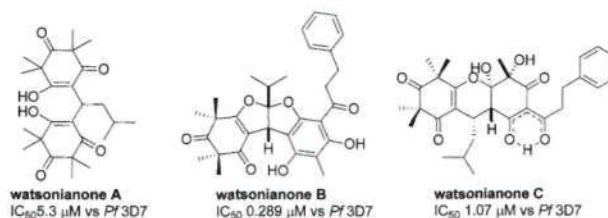
An activatable fluorescent RGD-containing probe encompassing an MMP substrate was designed and successfully used for the dual-targeting of $\alpha_v\beta_3$ integrin and MMP-9 extracellular protease in a tumor.

453

Watsonianone A–C, anti-plasmodial β -triketones from the Australian tree, *Corymbia watsoniana*

Anthony R. Carroll,* Vicky M. Avery, Sandra Duffy, Paul I. Forster and Gordon P. Guymer

Three novel β -triketones have been identified from the flowers of *Corymbia watsoniana* and watsonianone B shows potent and selective antimalarial activity.

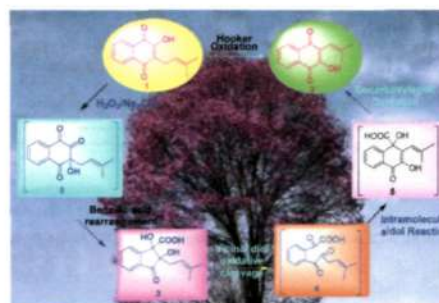


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A mechanistic study on the Hooker oxidation: synthesis of novel indane carboxylic acid derivatives from lapachol

Kenneth O. Eyong, Manohar Puppala, Ponminor Senthil Kumar, Marc Lamshöft, Gabriel N. Folefoc,* Michael Spiteller* and Sundarababu Baskaran*

The mechanism involved in the formation of the Hooker intermediate **3** from lapachol (**1**) via benzilic acid rearrangement as a key step has been investigated.



469

A novel sulfonated prosthetic group for [¹⁸F]-radiolabelling and imparting water solubility of biomolecules and cyanine fluorophores

Thomas Priem, Cédric Bouteiller,* Davide Camporese, Xavier Brune, Julie Hardouin, Anthony Romieu* and Pierre-Yves Renard*

The synthesis and some applications of a novel amine-reactive [¹⁸F]-labelling reagent are described. The [¹⁸F]-induced sultone-opening reaction enables both radiofluorination and water-solubilisation through the release of a free sulfonic acid.

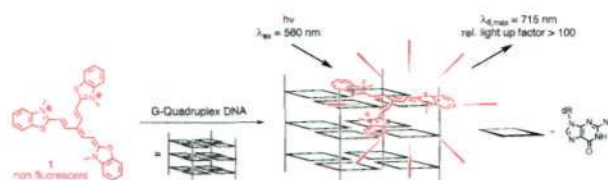


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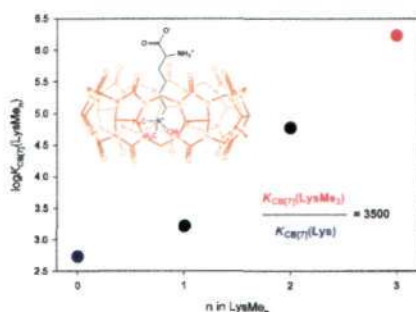
Light up G-quadruplex DNA with a [2.2.2]heptamethinecyanine dye

Heiko Ihmels* and Laura Thomas

It is shown that a [2.2.2]heptamethinecyanine dye binds selectively to quadruplex DNA. The association with the nucleic acid leads to a significant increase of the emission intensity of the otherwise weakly fluorescent dye, thus enabling the fluorimetric detection of quadruplex DNA.



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Selective molecular recognition of methylated lysines and arginines by cucurbit[6]uril and cucurbit[7]uril in aqueous solution

Mona A. Gamal-Eldin and Donal H. Macartney*

The cucurbit[7]uril host molecule selectively recognizes the epigenetic mark $N^{\epsilon},N^{\epsilon},N^{\epsilon}$ -trimethyllysine over the native L-lysine in aqueous solution, using ion-dipole interactions and the hydrophobic effect.

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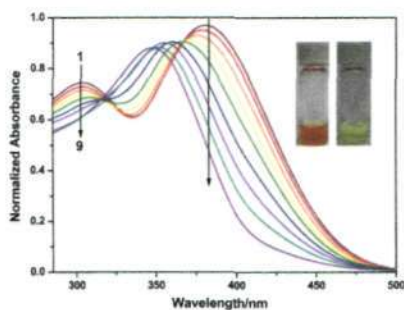
NuH or NuM = MeOH, *p*-Cresol, BnNH_2 , TMSN_3 , MeMgBr, VinylMgBr, AllylMgBr, *N*-Me-indole

Sulfoxide-TFAA and nucleophile combination as new reagent for aliphatic C–H functionalization at indole 2 α -position

Masanori Tayu, Kazuhiro Higuchi,* Masato Inaba and Tomomi Kawasaki*

Aliphatic C–H functionalization at indole 2 α -position mediated by acyloxythionium species generated from sulfoxide and TFAA has been developed. This reaction enables the introduction of *O*-, *N*- and *C*-substituents in a one-pot procedure.

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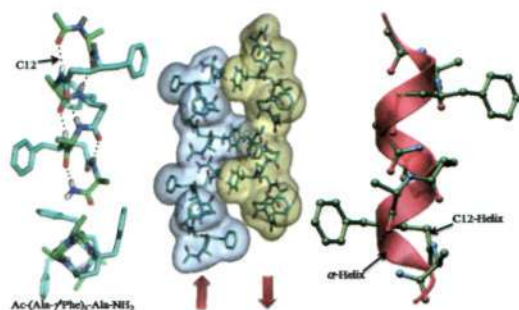


A novel ratiometric emission probe for Ca^{2+} in living cells

Qiaoling Liu, Wei Bian, Heping Shi, Li Fan, Shaomin Shuang, Chuan Dong* and Martin M. F. Choi*

A novel ratiometric emission probe for Ca^{2+} with a large Stokes shift of 202 nm and *in vivo* imaging.

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Protein secondary structure mimetics: crystal conformations of α/γ^4 -hybrid peptide 12-helices with proteinogenic side chains and their analogy with α - and β -peptide helices

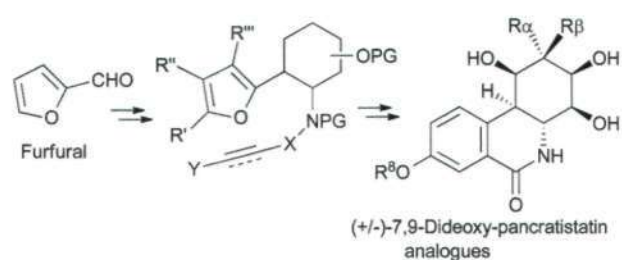
Sandip V. Jadhav, Anupam Bandyopadhyay and Hosahudya N. Gopi*

Solid phase synthesis and single crystal conformations of three α/γ^4 -hybrid heptapeptide 12-helices, their structural correlation with α -peptide helices (3_{10} - and α -helix) and β -peptide 12-helices are reported.

Synthesis and cytotoxicity of (+/-)-7,9-dideoxy-pancratistatin analogues

Olaia Nieto-García and Ricardo Alonso*

A novel synthetic route to (+/-)-7,9-dideoxy analogues of the antitumoral pancratistatin allows for antiproliferative testing and further refining of the pharmacophore.



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