ISSN 1477-0520 CODEN OBCRAK 3(4) 549–704 (2005)

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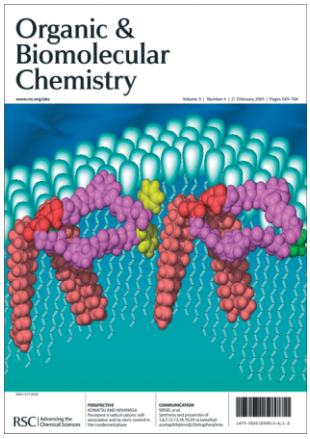
Harnessing UV for cancer therapy
Synthesis and photochemical properties of some photoactivated antitumour prodrugs releasing 5-fluorouracil.
See Zhang *et al.* page 592.



Cover

See Robert Pajewski, Riccardo Ferdani, Jolanta Pajewska, Natasha Djedovič, Paul H. Schlesinger and George W. Gokel, pp. 619–625

Amphiphilic heptapeptides known to form chloride ion channels were linked at either the C- or N-termini to form chloride anion transporters that were more than twice as active as the monomers, supporting a dimer mechanism for pore formation.

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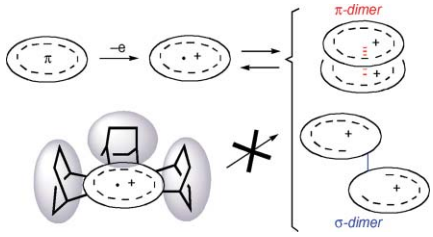
PERSPECTIVE

Persistent π radical cations: self-association and its steric control in the condensed phase

Tohru Nishinaga and Koichi Komatsu*

The structural and electronic factors causing persistent π radical cations to undergo self-association, forming σ- and π-dimers, are summarized. This dimerization, observed in many stable π radical cations, can be suppressed by structural modification with bicyclo[2.2.2]octene frameworks.

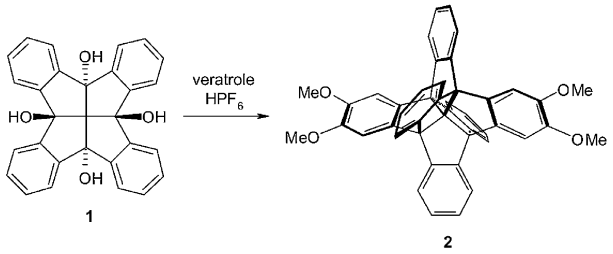


COMMUNICATIONS

Methoxy-substituted centrohexaindanes through the fenestrane route

Jörg Tellenbröker, Dieter Barth, Beate Neumann, Hans-Georg Stammler and Dietmar Kuck*

Fenestrindanetetrol **1** is easily converted to methoxy-substituted centrohexaindanes, *e.g.*, tetramethoxycentrohexaindane **2**, which has been characterized by X-ray single crystal structure analysis.



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COMMUNICATIONS

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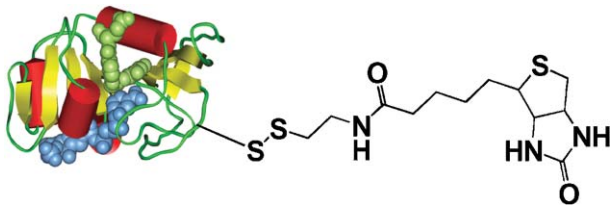
Synthesis of homogenous site-selectively glycosylated proteins

Richard S. Swanwick, Alison M. Daines, Sabine L. Flitsch and Rudolf K. Allemann*

An efficient synthesis of glycosylated proteins is described.



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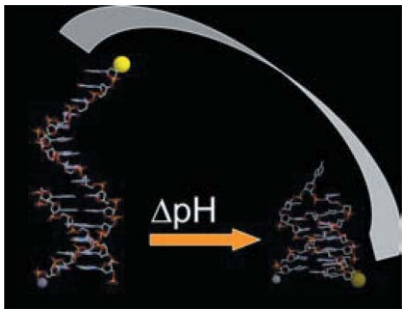
The dynamic properties of an intramolecular transition from DNA duplex to cytosine–thymine motif triplex

Marco Brucale, Giampaolo Zuccheri* and Bruno Samorì

We report the repeated formation and breakdown of an intramolecular cytosine–thymine DNA triple-helix, occurring independently of its local concentration; an ideal candidate to power simple nanometer-scale devices.



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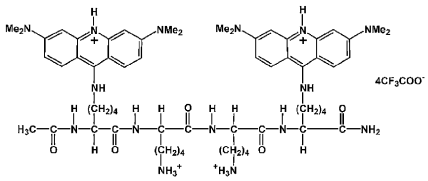
Fluorescence enhancement of bis-acridine orange peptide, BAO, upon binding to double stranded DNA

Keiji Mizuki, Yutaka Sakakibara, Hiroyuki Ueyama, Takahiko Nojima, Michinori Waki and Shigeori Takenaka*

Newly synthesized bis-acridine orange showed a *ca.* 200-fold fluorescence enhancement upon addition of double stranded DNA, regardless of its base sequence.



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Synthesis and properties of 1,6,7,12,13,18,19,24-octamethylacenaphthyleno[*b*,*l*]tetraphenylene

Eric L. Elliott, Akihiro Orita, Daiki Hasegawa, Peter Gantzel, Junzo Otera and Jay S. Siegel*

1,6,7,12,13,18,19,24-octamethyldibenzo[*def*,*pqr*]tetraphenylene has been synthesized. The X-ray crystal structure reveals a saddle-shaped, C_2 symmetric molecule with a severely twisted surface.

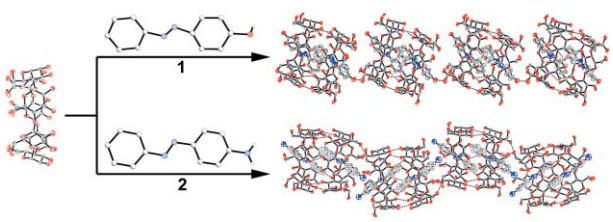
ARTICLES

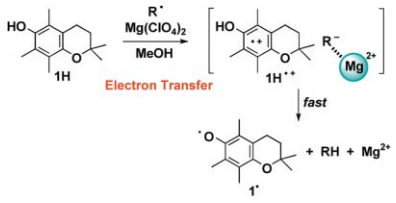
584

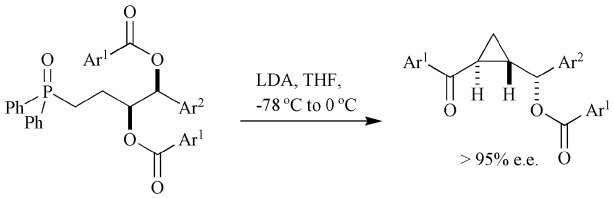
Assembly behavior of inclusion complexes of β-cyclodextrin with 4-hydroxyazobenzene and 4-aminoazobenzene

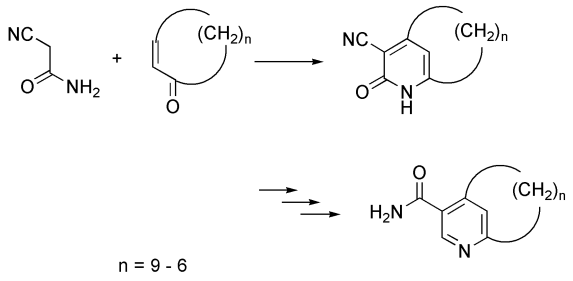
Yu Liu,* Yan-Li Zhao, Yong Chen and Dong-Sheng Guo

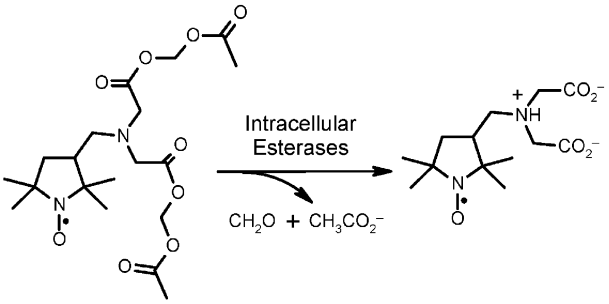
The difference of azobenzene's substituent groups in the inclusion complexes of β-cyclodextrin/4-hydroxyazobenzene and β-cyclodextrin/4-aminoazobenzene could lead to distinct crystal systems and binding modes.

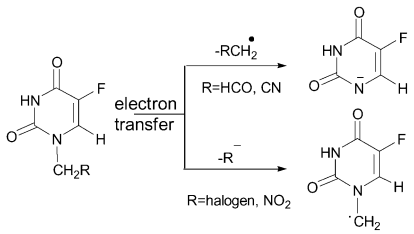


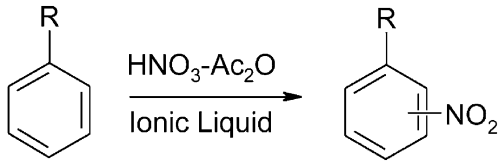


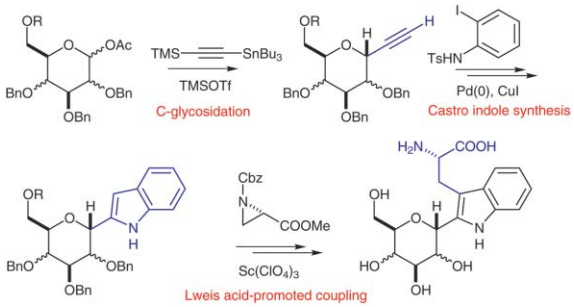












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Synthesis of the β-hydroxydopa–γ-hydroxy-δ-sulfinylnorvaline component of ustiloxins A & B
Luke Hunter, Malcolm D. McLeod and Craig A. Hutton (**DOI**: 10.1039/b418876d)

Thermotropic liquid-crystalline peptide derivatives: oligo(glutamic acid)s forming hydrogen-bonded columns
Masayuki Nishii, Toru Matsuoka, Yuko Kamikawa and Takashi Kato (**DOI**: 10.1039/b416474a)

Unexpected *Z*-stereoselectivity in the Ramberg–Bäcklund reaction of diarylsulfones leading to *cis*-stilbenes: the effect of aryl substituents and application in the synthesis of the integrastatin nucleus
Jonathan S. Foot, Gerard M. P. Giblin, A. C. Whitwood and R. J. K. Taylor (**DOI**: 10.1039/b418426b)

Structure–activity relationships of galabioside derivatives as inhibitors of *E. coli* and *S. suis* adhesins: nanomolar inhibitors of *S. suis* adhesins
Jörgen Ohlssona, Andreas Larsson, Sauli Haatajac, Jenny Alajääski, Peter Stenlund, Jerome S. Pinker, Scott J. Hultgren, Jukka Finne, Jan Kihlberg and Ulf J Nilsson (**DOI**: 10.1039/b416878j)

Involvement of proton transfer in the reductive repair of DNA guanyl radicals by aniline derivatives
A. Ly, N. Q. Tran, K. Sullivan, S. Bandong and J. R. Milligan (**DOI**: 10.1039/b418681h)

Radical substitution with azide: $TMSN_3$/$PhI(OAc)_2$ as a substitute of IN_3
Christian Marcus Pedersen, Lavinia Georgeta Marinescu and Mikael Bols (**DOI**: 10.1039/b500037h)

Novel carbamate derivatives of 4-β-amino-4′-*O*-demethyl-4-desoxypodophyllotoxin as inhibitors of topoisomerase II: synthesis and biological evaluation
Maria Duca, Paola B. Arimondo, Stéphane Léonce, Alain Pierré, Bruno Pfeiffer, Claude Monneret and Daniel Dauzonne (**DOI**: 10.1039/b416862c)

Neutral cumulene oxide CCCCO is accessible by one-electron oxidation of $[CCCCO]^-$ in the gas phase
Mark Fitzgerald, Andrew M. McAnoy, John H. Bowie, Detlef Schröder and Helmut Schwarz (**DOI**: 10.1039/b417920j)

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