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Chemical Science – a ‘snapshot’ of the latest news and developments across the chemical sciences
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Chemical biology articles published in this journal also appear in the *Chemical Biology Virtual Journal*:
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Cover

See José L. Segura, Nazario Martín and Dirk M. Guldi, page 31.

Organic Photovoltaic Cells: From the photoinduced electron transfer at the molecular level to the bulk material and its spreading in between two transparent and metal electrodes to produce, eventually, a flexible photovoltaic cell, as this one prepared at Linz University.

CHEMICAL SCIENCE

C1

Drawing together the research highlights and news from all RSC publications, *Chemical Science* provides a ‘snapshot’ of the latest developments across the chemical sciences showcasing newsworthy articles, as well as the most significant scientific advances.

Chemical Science

January 2005/Volume 2/Issue 1

www.rsc.org/chemicalscience

EDITORIAL

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Editorial 2005

Professor David Parker, Chairman of the Editorial Board, and Janet Freshwater, Acting Managing Editor, look back on the achievements of 2004 and look forward to 2005.



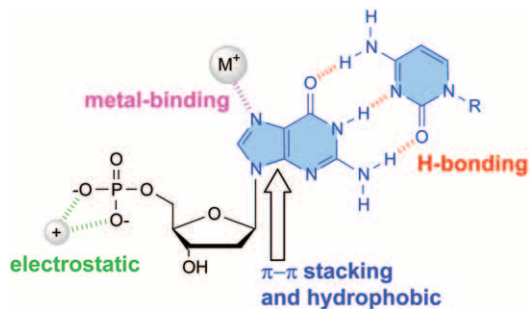
TUTORIAL REVIEWS

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Nucleobases as supramolecular motifs

Sona Sivakova and Stuart J. Rowan*

The utilization of the natural nucleobases in supramolecular chemistry has come a long way since Watson and Crick discovered the important role they play in the formation of the DNA double helix.



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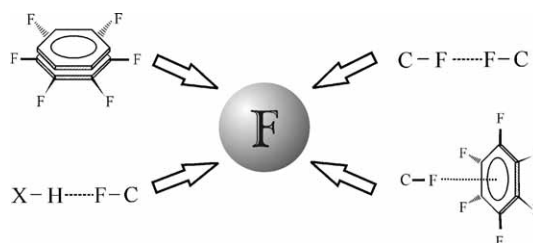
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Fluorine in crystal engineering—"the little atom that could"

Katharina Reichenbacher, Heike I. Süss and Jürg Hulliger*

Fluorinated organic compounds are reviewed in terms of crystal engineering regarding their distinctive fluorine interactions (phenyl-perfluorophenyl, $C-F\cdots H$, $F\cdots F$, $C-F\cdots\pi_F$).

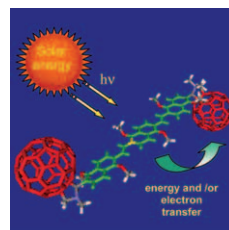


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Materials for organic solar cells: the C_{60}/π -conjugated oligomer approach

José L. Segura,* Nazario Martín* and Dirk M. Guldi*

C_{60}/π -conjugated oligomers are promising photo and electroactive materials, able to undergo photoinduced electron transfer processes, which can be efficiently used as integrative components for the fabrication of efficient organic solar cells.

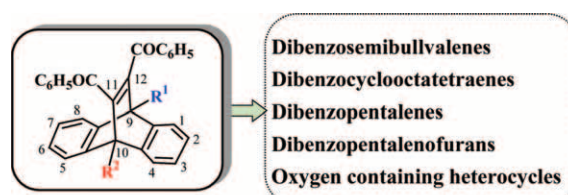


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Photoisomerisation of dibenzobarrelenes—a facile route to polycyclic synthons

Danaboyina Ramaiah,* Meledathu C. Sajimon, Joshy Joseph and Manapurathu V. George*

This review highlights the facile synthesis of a variety of complex carbocyclic ring systems through the phototransformations of dibenzobarrelenes.

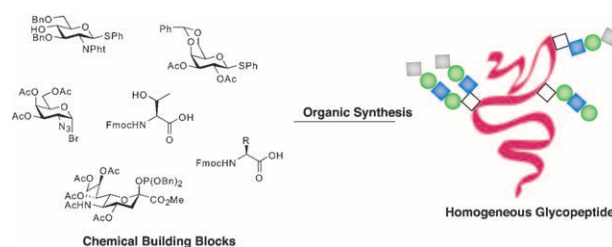


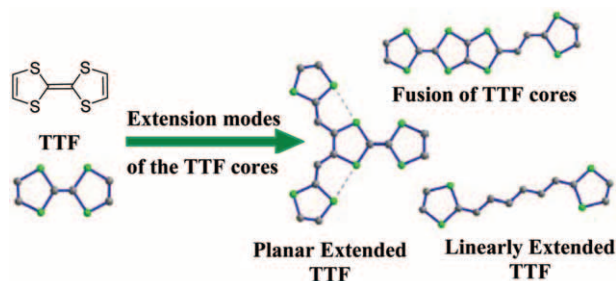
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Synthetic glycopeptides and glycoproteins as tools for biology

Matthew R. Pratt and Carolyn R. Bertozzi*

Research into protein glycosylation has benefited from homogeneous, structurally-defined glycoproteins obtained by chemical synthesis; this review focuses on recent applications of homogeneous synthetic glycopeptides and glycoproteins for studies of structure and function.





Salts of extended tetrathiafulvalene analogues: relationships between molecular structure, electrochemical properties and solid state organisation

Pierre Frère* and Peter J. Skabara

The development of extended tetrathiafulvalene (TTF) by incorporation of a π -conjugated system and/or by grafting chalcogen rich heterocycles on the TTF core has allowed the elaboration of several types of cation radical salts. This review presents how the topology of the extended TTF derivatives induces both their electrochemical properties and their stacking modes in the corresponding materials.

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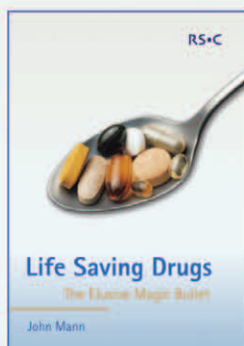
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