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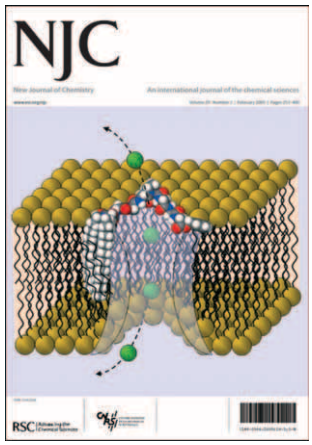

Cover

See George Gokel *et al.*, page 291.
The front cover illustrates the ability of membrane-active heptapeptides to form ion channels in phospholipid bilayers of synthetic liposomes. A range of heptapeptides form ion channels that perform many of the functions of complex proteins even though their molecular weight of about 1000 is less than 1% of the natural structures. Both the *C*- and *N*-terminal residues serve as membrane anchors and small dierences in their structures strongly influence ion transport.

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Chemical Science

February 2005/Volume 2/Issue 2

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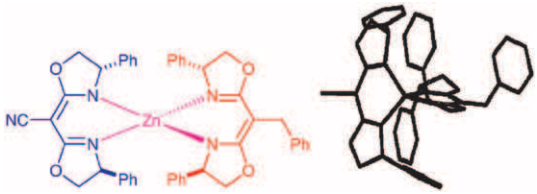
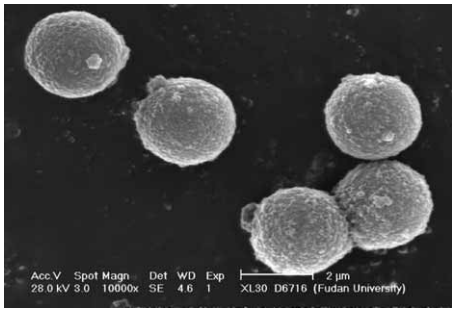
LETTERS





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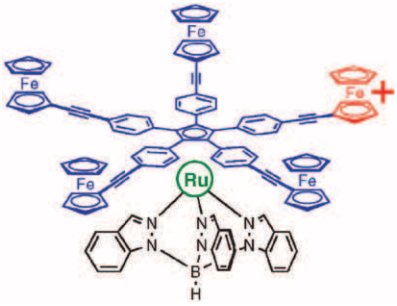

Design and synthesis of the active part of a potential molecular motor

Alexandre Carella, Gwénaël Rapenne* and Jean-Pierre Launay*

A heteroleptic ruthenium(II) complex fulfils all criteria to behave as an electron-driven rotary motor.

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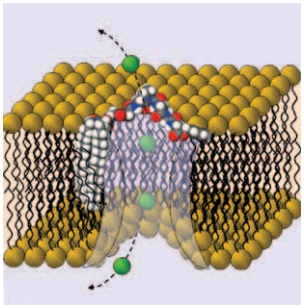
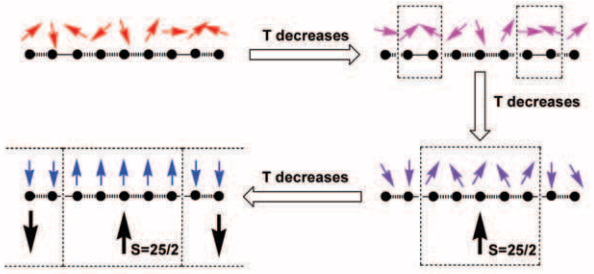


The *C*-and *N*-terminal residues of synthetic heptapeptide ion channels influence transport efficacy through phospholipid bilayers

Natasha Djedovič, Riccardo Ferdani, Egan Harder, Jolanta Pajewska, Robert Pajewski, Michelle E. Weber, Paul H. Schlesinger and George W. Gokel*

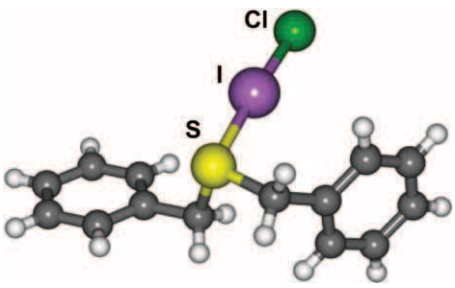
Both the *C*- and *N*-terminal chains of the amphiphilic heptapeptide ionophores influence the efficacy of ion transport.



Topological ferrimagnetic behavior of one new chain with the new AF/F/F′/F′/F alternating sequence

Joan Cano,* Yves Journaux, Mohamed A. S. Goher, Morsy A. M. Abu-Youssef, Franz A. Mautner, Guido J. Reiβ, Albert Escuer* and Ramon Vicente

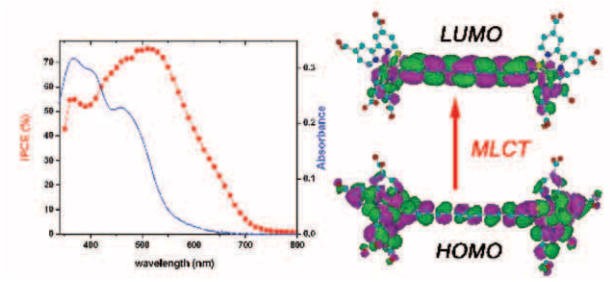
A one-dimensional system with an unusual magnetic interaction topology that leads to a new type of ferrimagnetic behavior is analyzed. It has been studied by means of susceptibility, single crystal ESR measurements and Monte Carlo simulations.

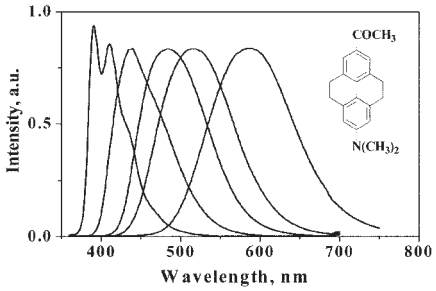


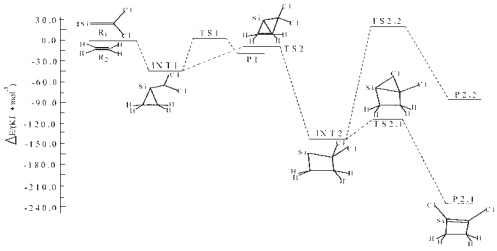
A solid-state structural and theoretical study on the 1 : 1 addition compounds of thioethers with dihalogens and interhalogens I–X (X = I, Br, Cl)

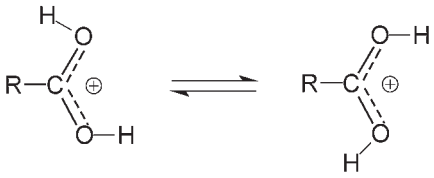
Gabriel A. Asseily, Robert P. Davies,* Henry S. Rzepa* and Andrew J. P. White

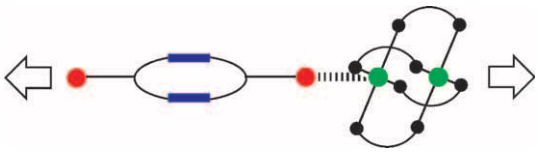
The first solid-state structural characterisation of a thioether I–Cl adduct is presented along with a thorough theoretical study on the accurate modelling of thioether interhalogen and dihalogen adducts.











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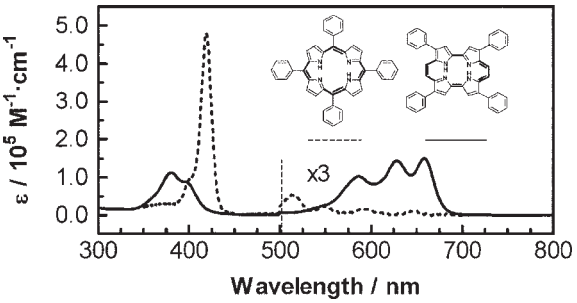
A comparison between the photophysical and photosensitising properties of tetraphenyl porphycenes and porphyrins

Noemí Rubio, Ferran Prat, Núria Bou, José I. Borrell, Jordi Teixidó, Ángeles Villanueva, Ángeles Juarranz, Magdalena Cañete, Juan C. Stockert and Santi Nonell*

The photophysical properties of 2,7,12,17-tetraphenylporphycene and its Pd(II)- and Cu(II)-complexes are compared to those of tetraphenylporphyrins for assessing their potential advantages in photodynamic therapy.



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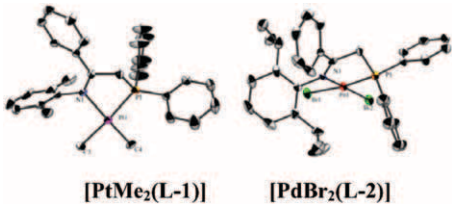
New group 10 complexes of the bulky iminophosphine ligands $[Ph_2PCH_2C(Ph)=N(2,6\text{-}R_2C_6H_3)]$, where R = Me, ^{i}Pr

Sofia I. Pascu,* Karl S. Coleman, A. R. Cowley, Malcolm L. H. Green* and Nicholas H. Rees

Ni(II), Pd(II) and Pt(II) complexes of **L1**: $[Ph_2PCH_2C(Ph)=N(2,6\text{-}Me_2C_6H_3)]$ and **L2**: $[Ph_2PCH_2C(Ph)=N(2,6\text{-}^iPr_2C_6H_3)]$ have been prepared. The Pd(II) complexes catalyse the Heck coupling of 4-bromoacetophenone with *n*-butyl acrylate.



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