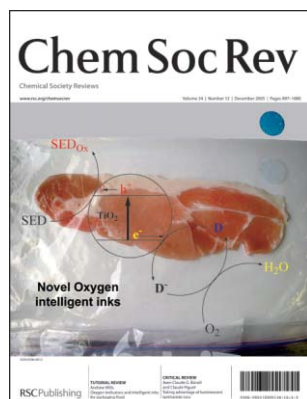


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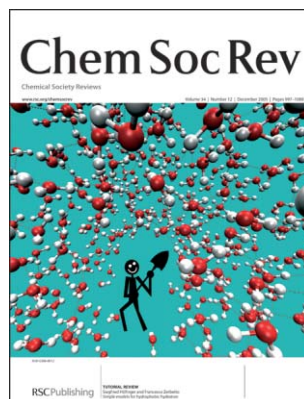


Cover

See Andrew Mills, page 1003.

UV-activated, oxygen intelligent ink sensors outside and inside a food package flushed with carbon dioxide, with a superimposed sensor mechanism.

Image reproduced by permission of Andrew Mills from *Chem. Soc. Rev.*, 2005, **34**, 1003.



Inside cover

See Siegfried Höfner and Francesco Zerbetto, page 1012.

Hydrophobicity entails an energy penalty that can be estimated as the work needed to make room in water.

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C89

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TUTORIAL REVIEWS

1003

Oxygen indicators and intelligent inks for packaging food

Andrew Mills

The detection of oxygen using optical sensors is of increasing interest, especially in modified atmosphere packaging (MAP). The ideal properties of an oxygen optical sensor for MAP and those developed to date are reviewed.



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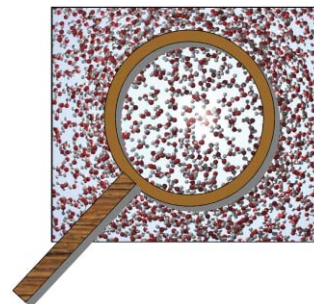
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1012

Simple models for hydrophobic hydration

Siegfried Höfner* and Francesco Zerbetto*

The free energy of forming holes of molecular size and shape in water can be calculated by a simple equation.

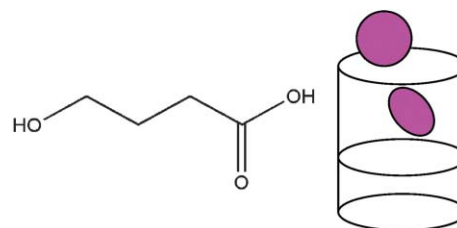


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Advances in chemistry applied to forensic science

David F. Rendle

Acts of terrorism, gun-related crime, drug trafficking, date-rape drugs, driving under the influence of drugs—all topics in the news, and work for the forensic chemist.

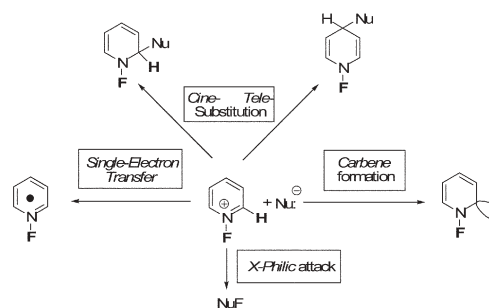


1031

Chemistry of *N*-fluoropyridinium salts

Alexander S. Kiselyov

Developments in the chemistry of *N*-fluoropyridinium salts in the past decade are discussed. Three mechanistic pathways including: i) fluorination; ii) carbenoid behavior and iii) aromatic substitution are exemplified.

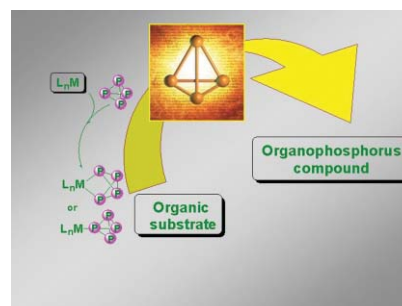


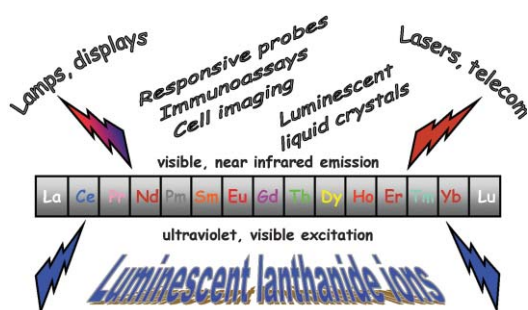
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Coordination chemistry and functionalization of white phosphorus *via* transition metal complexes

Maurizio Peruzzini,* Luca Gonsalvi and Antonio Romerosa

May white phosphorus, one of the most reactive and toxic of elements, be the ingredient for the development of a green protocol for the synthesis of organophosphorus derivatives?





Taking advantage of luminescent lanthanide ions

Jean-Claude G. Bünzli* and Claude Piguet*

An introduction to the fascinating world of lanthanide luminescence focuses on molecular mono- and poly-metallic edifices and applications in biomedical and materials sciences

ADDITIONS AND CORRECTIONS

Joel M. Pollino and Marcus Weck

Non-covalent side-chain polymers: design principles, functionalization strategies, and perspectives

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