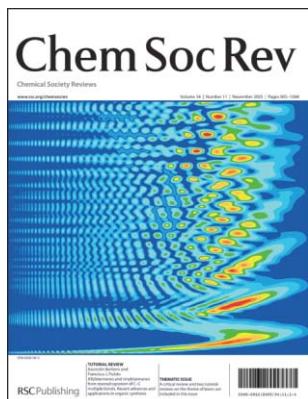


IN THIS ISSUE

ISSN 0306-0012 CODEN CSRVBR 34(11) 905–996 (2005)



Cover

See R. E. Carley, E. Heesel and H. H. Fielding, page 949. A plot illustrating the temporal evolution (*y*-axis) of the radial distribution function (colour) of a Rydberg electron wave packet localized along the radial coordinate (*x*-axis). Image reproduced by permission of R. E. Carley, E. Heesel and H. H. Fielding from *Chem. Soc. Rev.*, 2005, **34**, 949.



Inside cover

See Kostas Kostarelos and Andrew D. Miller, page 970. Schematic of an ABCD nanoparticle, a structural paradigm for viable, synthetic non-viral vector systems to enable nucleic acid delivery applications *in vitro*, *ex vivo* and *in vivo*. Image (Forepoint © IC-Vec Ltd) reproduced by permission of K. Kostarelos and A. D. Miller from *Chem. Soc. Rev.*, 2005, **34**, 970.

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913

Allylstannanes and vinylstannanes from stannylcupration of C–C multiple bonds. Recent advances and applications in organic synthesis

Asunción Barbero* and Francisco J. Pulido*

This review describes the stannylcupration of allenes and alkynes as a powerful tool for the obtention of allyl- and vinylstannanes, which are useful intermediates in the synthesis of natural products, as well as efficient synthons for the stereocontrolled introduction of new stereogenic centers in organic molecules.



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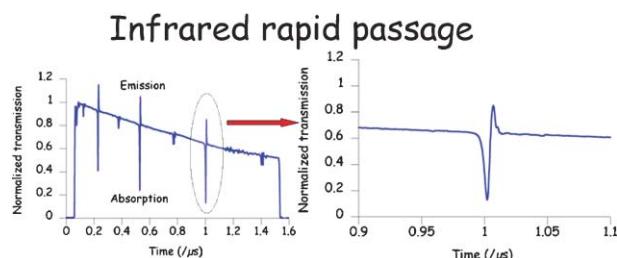
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Quantum cascade semiconductor infrared and far-infrared lasers: from trace gas sensing to non-linear optics

Geoffrey Duxbury,* Nigel Langford,
Michael T. McCulloch and Stephen Wright

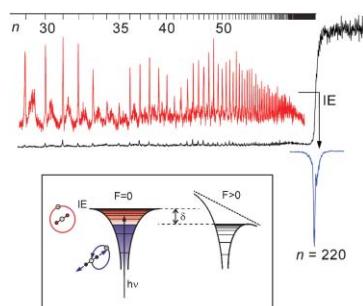
Quantum cascade lasers have the potential to revolutionise infrared spectroscopy, from the rapid detection of atmospheric gases to coherent excitation in non-linear optics.



Photoelectron spectroscopy without photoelectrons: Twenty years of ZEKE spectroscopy

Martin C. R. Cockett

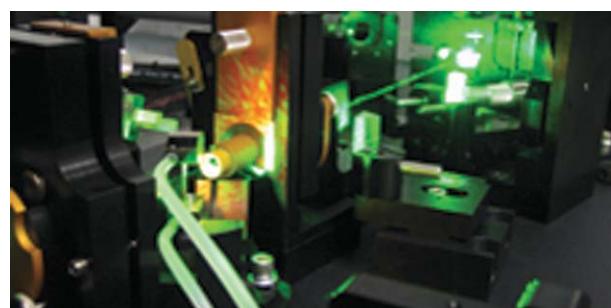
ZEKE spectroscopy provides a means to dramatically improve the resolving power of photoelectron spectroscopy by dispensing with photoelectrons altogether.



Femtosecond lasers in gas phase chemistry

R. E. Carley, E. Heesel and H. H. Fielding*

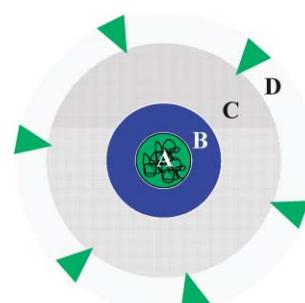
Femtosecond lasers are continuing to have a major impact in the field of chemical reaction dynamics and coherent control.



Synthetic, self-assembly ABCD nanoparticles; a structural paradigm for viable synthetic non-viral vectors

Kostas Kostarelos and Andrew D. Miller

From simple cationic liposomes/micelle systems to ABCD nanoparticles; how chemistry is actively contributing to the growing field of gene therapy research.



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