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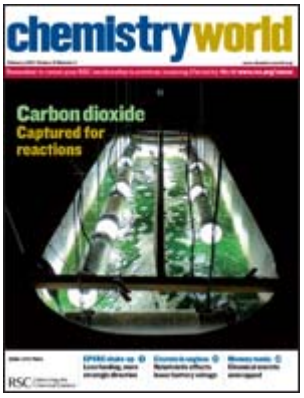

News and analysis

Atomic weights change to reflect natural variations
20 December 2010
Atomic weights for elements including hydrogen, carbon and oxygen to be stated as intervals

White House memo sets scientific integrity standards
The Obama administration's long-awaited guidelines on scientific integrity

South Africa sends medical isotopes to US
20 December 2010
US takes delivery of Mo-99 made without bomb-grade uranium, but urgent supply problems remain

EPSRC plans represent 'huge change'
12 January 2011
Academics concerned changes and cuts at chemistry funding body could threaten careers

Libel law reform to protect scientists
10 January 2011
Reform to UK libel laws could protect scientists from being 'bullied into silence' at the prospect of costly legal battles with big businesses

California under fire for approving controversial pesticide
10 January 2011
State being sued for allowing methyl iodide to be used as a fumigant pesticide, despite objections from scientists

Obama moves to protect research agency budgets
06 January 2011
President signs Competes bill authorising sustained funding increases for key physical science agencies, but academics still wary

Funding pharma whistleblowers
04 January 2011
US whistleblower lawsuits filed against drug companies could provide attractive investment opportunities for hedge funds

Innovation: Europe must do better
Head of innovation institute pushes for entrepreneurship in research

UK tilts towards appraisal of Avastin as eye drug
13 January 2011
UK authorities press forward in long running debate over two drugs from the Genentech

Business roundup
Industry news, February 2011

Market Place
New products, February 2011

In the papers...
Short items

News in Brief
Short items, February 2011

Note book
Short items, February 2011

Research

New technique probes electron properties of individual atoms
15 December 2010
Electron microscopy technique discriminates between carbon atoms with one, two and three bonds

New molecule could propel rockets
07 January 2011
New nitrogen oxide molecule could be used in rocket fuel, but some researchers are unsure whether it will ever make it out of the lab

Einstein in your engine
12 January 2011
Researchers find that up to 85 per cent of the voltage developed by the lead-acid car battery is due to relativistic effects

Antibodies could lead to MRSA vaccine
16 January 2011
Antibodies against a crucial MRSA protein stop the bacterium in its tracks

Nanoparticles build up
05 January 2011
New studies show nanoparticles can concentrate from one species to another through feeding, prompting questions about the design of future particles

Macromolecules from miniature templates
05 January 2011
Powerful new technique for precisely synthesising large molecules using simple templates

Unclogging the problems of flow chemistry
13 January 2011
An ultrasound bath can improve continuous flow systems that could be used to manufacture pharmaceuticals

Cellulose catalyst rewrites rules of attraction
21 December 2010
A magnetic catalyst for the conversion of biomass into sugar that can be pulled out for reuse

Toxin sensor for drinking water
06 January 2011
A sensor to detect toxins produced by algae in drinking water

Biohydrogen produced in air
15 December 2010
Ocean microbe found to produce large amounts of hydrogen under aerobic conditions

Silk woven into transistors
05 January 2011
Researchers demonstrate a bio-compatible transistor that could find applications in medicine or flexible electronics

Mild route to organohalides using visible light
09 January 2011
US researchers convert alcohols to their corresponding bromides and iodides without generating wasteful by-products using visible-light

Lung implant is a breath of fresh air
14 December 2010
An artificial lung device spells new hope for lung disease sufferers

Using HIV against itself
06 January 2011
'Trojan horse' molecule uses HIV to trigger the release of the very drug that could destroy the virus

Drug delivery: from needles to nanorods?
17 December 2010
Hot gold nanorods could help doctors to deliver drugs and vaccines through the skin

Frozen assets in biobanks
20 December 2010
A method for DNA and RNA extraction could aid cancer research

Novel route to key aromatics
19 December 2010
Iridium catalyst can induce straight-chain hydrocarbons to form aromatic rings in a more selective and chemically subtle way than conventional routes

Urchins bare their teeth in materials research
07 January 2011
The self-sharpening mechanism used by sea urchin teeth could inspire new self-sharpening tools

Microfluidic pinball
07 January 2011
A device set up like a pinball machine guides oil droplets through polymers to build up polymer layers

Lights, camera, action
17 December 2010
Martyn Poliakoff talks to Kathleen Too about the periodic table of videos and his passion for green chemistry

Features

Rehabilitating captured CO2
Rather than burying it underground, companies are developing processes that use carbon dioxide emissions as chemical starting materials. Andy Extance investigates

Fighting the flu
The threat of pandemic influenza is constantly on the horizon. Clare Sansom explores the latest attempts to tackle an ever-changing foe

Mummy mania
Mummified remains from Egypt and beyond hold chemical information about the daily lives of ancient civilisations. Emma Davies reports

Idle cures
Taking a coffee break could help find cures for cancer or Aids. Katrina Megget looks at the future of research that harnesses the computing power of the World Community Grid

Opinion

Editorial: Deal or no deal
January was a slow starter

What proportion of the world's energy supply will be sustainable by 2020?
What proportion of the world's energy supply will be sustainable by 2020?

Column: In the pipeline
Enzymes have been giving chemists inferiority complexes since day one, says Derek Lowe. But there's no denying their potential

Column: Totally Synthetic
Salvileucalin B

Column: The crucible
Philip Ball looks at research that is beginning to explain why we cry

My hero: The greatest influences of chemistry Nobel laureates
Aaron Ciechanover tells us why Charles Darwin is his hero in chemistry

Chemistry World Jobs

Managing change: Reasons to be cheerful
Getting the economy back on track calls for innovation, and that calls for a mobile job market, says Bea Perks

The insider: Not just a pretty face
Beauty is in the eye of the cosmetic chemist, discovers Yfke Hager as she learns about the job satisfaction of picking up a formula you created in a shop

Careers clinic: A safe bet
Charlotte Ashley-Roberts unearths a wealth of career opportunities for chemists moving into the insurance sector

Profile: Consider the evidence
Forensic analyst Raychelle Burk explains that real-life forensic scientists have rather more paperwork on TV. Bea Perks is relieved to find they don't carry guns, either

Regulars

Reviews
Chemistry World Reviews, February 2011

Letters
Chemistry World Letters, February 2011

Puzzles
Puzzles, February 2011

Chemistry through the lens
Surfacing turtle

Classic kit: Craig's rotary evaporator
Years ago, a non-chemist friend of mine visiting my lab asked me what a rotavap was for

The last retort: Napoleon's wallpaper
Napoleon's wallpaper

Flashback
20 years ago in Chemistry in Britain