

Chemistry World

April 2006

Vol 3, no.4



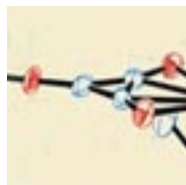
News Review



Thriving chemistry department faces closure

13 March 2006

Sussex University, UK, has announced the closure of its chemistry department following weeks of speculation.



Future applications for CO blue-skies surprise

27 February 2006

A catalytic system to turn carbon monoxide into fine-chemicals feedstocks could be developed within months.



Archives for Africa and beyond

01 March 2006

The RSC is to provide free access to its journals back-catalogue in over 50 developing countries, the first learned society to make such a gesture.



Leap of faith pays off for MR research

06 March 2006

A £5 million research facility dedicated to studying clinical molecular resonance today opens in Newcastle, UK.



Ski jump

Mind-altering drugs at the Olympics

23 February 2006

Psychological effects of outlawed performance-enhancing sports drug.



Biopolymer for increased milk production

06 March 2006

A complex polysaccharide reduces disease incidence in dairy herds and could help prevent antibiotic resistance.



Museum trustees look for a catalyst

03 March 2006

A struggling chemical-industry museum in Manchester, UK, is undergoing a revamp in an attempt to attract more young visitors.



Innovative short list announced

21 March 2006

The shortlist for this year's RSC Innovation Awards has been announced, reflecting the breadth of innovation in the chemical sciences.

News briefs

Short items

Business roundup

Industry news

Funding briefs

Short items

New on the market

New products

In the papers...

Short items

Chemical Science



Unexpected photochemistry unearthed

09 March 2006

Soil uses sunlight to produce chemicals that can break down pollutants in the lowest layers of the atmosphere.



Brownian motion slips into reverse

07 March 2006

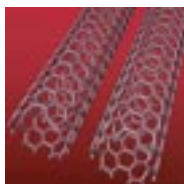
An electrical device for suppressing Brownian motion traps proteins, viruses and semiconductor nanocrystals.



Thin films cooled by an electric field

03 March 2006

A material cooled by an electric field could replace greenhouse gases as a refrigerant in household fridges



New catalyst for methanol fuel cells

01 March 2006

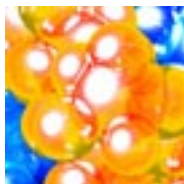
Cheap and efficient catalyst for methanol oxidation could accelerate adoption of methanol fuel cells.



Smoking ban leads to healthier bar staff

16 March 2006

A Norwegian study has found a reduction in airborne pollutants and nicotine exposure following a smoking ban in public places.



Longer-lasting bubbles for ultrasound imaging

24 March 2006

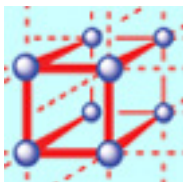
Scientists in France have discovered a way of making longer-lasting bubbles for use in ultrasound imaging.



Extraterrestrial trigger for life on Earth

13 March 2006

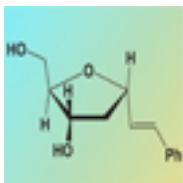
Extraterrestrial phosphorus species brought to Earth by comets may have played a role in the origins of life on our planet.



Solvent-free synthesis forms a porous framework

14 March 2006

Scientists in Northern Ireland have found a simple and efficient way to make microporous metal–organic frameworks.



New route to C-glycoside creation overcomes earlier drawbacks

08 March 2006

One-pot process for creating C-glycosides could help prepare robust analogues of naturally occurring carbohydrates.



Covalent bonds crack under the strain

09 March 2006

Chemists must consider engineering principles when designing molecules after news that tough carbon–carbon bonds break easily under mechanical strain.



Zeolites smoke out carcinogens

07 March 2006

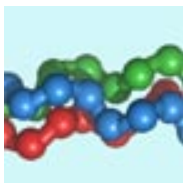
Chinese chemists have developed new types of zeolite that can selectively filter out carcinogens from the environment.



Green light from polymers

10 March 2006

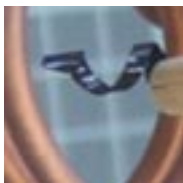
Electroluminescent polymers that could display a full spectrum of colour have been developed using a dopant/host strategy.



Successful collagen synthesis comes to a sticky end

14 February 2006

US chemists have synthesised collagen fibres with dimensions similar to natural collagen, predicting the advent of 'bionic man'.



Magnetic appeal of shape-change polymer

28 February 2006

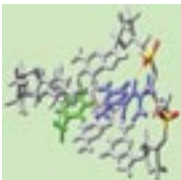
German polymer scientists have developed polymers that change shape in response to a magnetic field.



Dendrimer technology gives long-lasting image

03 March 2006

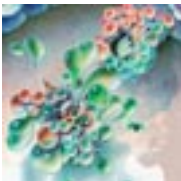
Sugar derivatives of gadolinium point to new possibilities in MRI contrast agent research.



A binding agreement

17 March 2006

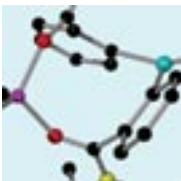
DNA-binding ligands could be useful in the detection of small genetic variations.



Nanoprobes light up cellular demolition

06 March 2006

Fluorescent nanoprobes detect programmed cell death.



Dual organometallics enhance zinc reactivity

10 March 2006

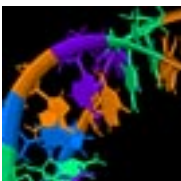
Zinc loses its shyness at the organometallic party when accompanied by sodium or lithium



Chemists crack cocaine detection

02 March 2006

Researchers, including two high school students and a Nobel laureate, have created a sensitive, simple, cocaine sensor.



A DNA switch for RNA folding

27 February 2006

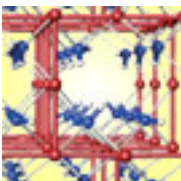
US researchers have equipped a large RNA domain with a DNA switch, which they say can fold or unfold the RNA molecule at will.



Going with the flow

22 March 2006

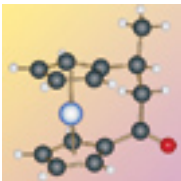
European researchers say they can overcome the problems of modelling flow in fluids like mayonnaise, engine oil and snow.



Structure is key to superior hydrogen storage

10 March 2006

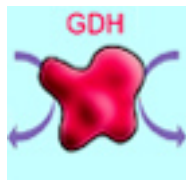
Researchers in the UK have revealed the structure of a compound they say could have a major impact on hydrogen storage.



One step closer to designer catalysts

02 March 2006

European researchers have developed a choice of routes to [3]ferrocenophanones, important building blocks for ligands used in asymmetric catalysis.



Logic gate operations performed by enzymes

17 March 2006

Enzymes can mimic a computational process involving a system of logic gates, say scientists in Israel.

Features



The greenhouse in the sky?

Venus could be the ultimate example of what can happen when an atmospheric greenhouse effect runs away. A mission to the planet four billion years ago might have shed some light on...



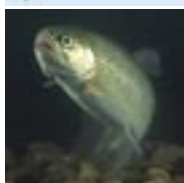
Rapid rise of a team player

A passion for science and rugby has shaped Duncan Graham's career. He talks to Andrew Scott about his work and aspirations.



Buzzing with bioscience

England's northwest is one of the UK's top clusters for the biomedical sector. Yfke van Bergen looks at the role the University of Manchester has played.



An end to endocrine disrupters?

Water companies around the world are investigating the best ways to remove traces of endocrine disrupting chemicals from wastewater, as Maria Burke finds out.



Chemists imitate nature

Asymmetric aldol reactions are playing a major role in helping chemists to create synthetic versions of natural compounds. Susan Aldridge reports.

Regulars



Editorial: Drugs testing on trial

A clinical trial that landed subjects in intensive care has raised concerns about the process



Comment: The analytical business: alive and kicking?

China and India are showing significant growth, while demand for traditional analytical techniques underpins the market, as Ian Shuttler explains.

Your views...

Patents can have a negative effect on chemical research



Careers: Switching to sales

Heather Sutherland-Paul started as an analytical chemist but has carved herself a career in sales. She tells Karen Harries-Rees how she managed the switch

Crossword and Su Doku

Prize crossword and Su Doku, April 2006

The last retort: A natural confusion

The great French chemist Antoine Lavoisier (1743-1794) understood the importance of names in science

Flashback

April - 35 years ago; 95 years ago; 105 years ago; 110 years ago; 160 years ago; 185 years ago

▶ Letters

Chemistry World Letters, April 2006

▶ Reviews

Chemistry World Reviews, April 2006