

THIS WEEK IN CHEMISTRY

14TH FEBRUARY 2016 – 20TH FEBRUARY 2016

Links to articles & studies for the featured stories are provided at: <http://goo.gl/Xv7Spm>



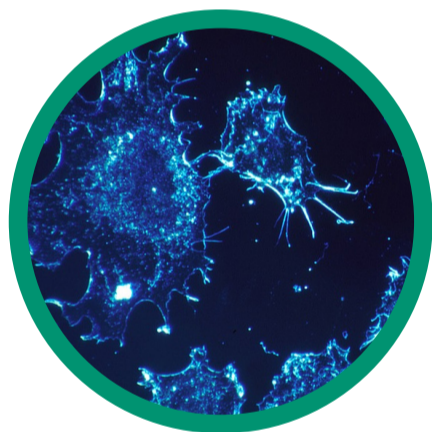
'VOLLEYBALLENE', A NEWLY IDENTIFIED BUCKYBALL VARIANT

China scientists identified a molecular cluster that they have dubbed 'volleyballene'. It consists of a combination of carbon pentagons and scandium atoms, with the formula $Sc_{20}C_{60}$. Its name derives from the space-filling model of its atoms looking similar to a volleyball.



CARAMEL HAS A SIMILAR STRUCTURE & FLOW TO RUBBER

Food scientists studying how caramel's composition can affect how it flows have discovered that it is rubber-like both in its structure and flow behaviour. In the caramel, cross-linked milk protein polymers form a large network, in which small droplets of fat are dotted.



NANOBUBBLES HELP DESTROY CANCER MICRO-TUMOURS

A new technique uses gold nanoparticles to hunt down tumours. The nanoparticles are designed to build up in cancer cells, and are then irradiated with an infrared laser. This causes them to produce 'nanobubbles' which explode cancer cells, without damage to others.



EXPERTS RULE OUT LINK BETWEEN LARVICIDE & MICROCEPHALY

Experts have derided the claims of a group of Argentinian physicians that pyriproxyfen, a larvicide added to water to kill mosquito larvae, is responsible for Brazil's current microcephaly outbreak. The outbreak has been linked to the Zika virus currently afflicting the region.



VACCINE STOPS SYNTHETIC OPIOID DRUG REACHING THE BRAIN

Scientists have reported successful pre-clinical testing of a vaccine against the synthetic opioid fentanyl, a commonly used 'designer drug'. It mimics fentanyl's structure, causing the body to create antibodies which then stop fentanyl reaching the brain, blocking its toxic effects.

