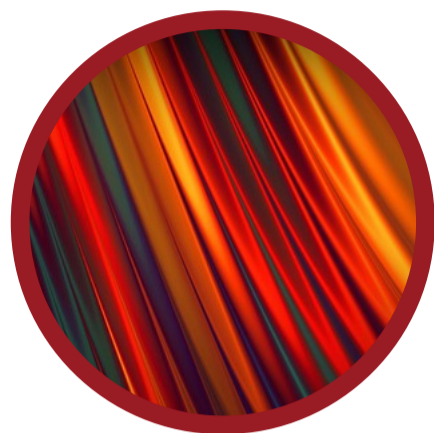


THIS WEEK IN CHEMISTRY

7TH FEBRUARY 2016 – 13TH FEBRUARY 2016

Links to articles & studies for the featured stories are provided at: <http://goo.gl/mbi5Qv>



'CHAMELEON' SKIN CHANGES COLOUR TO MATCH BACKGROUND

A new skin based on colour-shifting nanostructures brings adaptive camouflage one step closer. Passing a voltage through the skin binds silver ions to gold domes, changing the skin's reflectivity. Coupled with colour sensors, it automatically adapts to background colours.



MOLECULE DEFEATS MALARIA IN MICE WITH FEW SIDE EFFECTS

A molecule which affects the protein-degrading abilities of malarial parasites could be used as a complement to existing anti-malarials, to which the parasite is developing resistance. It reduced levels of the parasite in mice without toxic side effects. Further trials are planned.



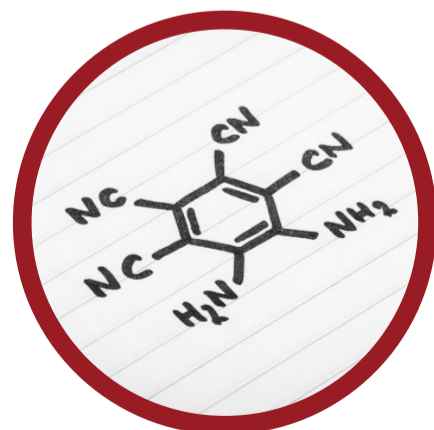
CAUSE OF TIANJIN EXPLOSION IDENTIFIED BY INVESTIGATORS

The cause of the explosion in a warehouse in Tianjin, China, which killed 165 people, has been identified by Chinese investigators. They state that overly dry nitrocellulose was initially responsible; subsequently, nearby ammonium nitrate fertiliser ignited, causing the explosion.



THINNER, STRONGER CONDOMS USING NANOCELLULOSE FROM GRASS

Thinner, stronger condoms can be produced by using nanocellulose isolated from Australian spinifex grass. The nanocellulose can be used as an additive, allowing less latex to be used. The condoms are stronger than conventional condoms, but also as thin as a human hair.



SUBSTITUTED BENZENE HAS LARGEST NEUTRAL MOLECULE DIPOLE

A hexasubstituted benzene has the largest dipole moment (due to the unequal sharing of electrons) that has ever been recorded in a neutral molecule. 5,6-diaminobenzene-1,2,3,4-tetracarbonitrile has a dipole moment of 14.1 debye, which is greater than some ionic compounds.

