

THIS WEEK IN CHEMISTRY

23RD JULY 2017 – 29TH JULY 2017

Links to articles & studies for the featured stories are provided at: <https://goo.gl/1tTDc8>



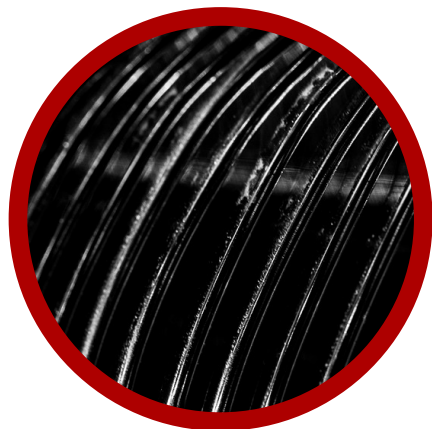
SLUG SLIME INSPIRES STRONG SURGICAL ADHESIVE

Researchers have created an adhesive that mimics slug secretions and is significantly stronger than current commercially available surgical glues. It consists of a matrix of cross-linked polymers coated with chitosan, producing an adhesive surface.



DICHLOROMETHANE USE COULD DELAY OZONE LAYER RECOVERY

Dichloromethane (DCM) is a solvent found in paint strippers and used as a chemical feedstock. Its concentration in the atmosphere is increasing rapidly, and the fact that it reacts with ozone could delay the recovery of the ozone layer by up to 30 years.



SILOXANE NANOWIRES ARE WORLD'S WORST CONDUCTOR

A new molecular wire built up from silicon and oxygen-containing molecules have the greatest electrical resistance ever recorded, lower than other molecular insulators such as alkanes and silanes. They could have applications as insulators for molecular circuits.



LIQUID GALLIUM-PALLADIUM DROPLETS CATALYSE REACTIONS

Liquid alloys of gallium and palladium have been shown to be effective catalysts for alkane dehydrogenation, converting alkanes to alkenes which can be used to make polymers and other chemicals. They could be used at higher temperatures than other liquid-phase catalysts.



DEVICE DETECTS EXPLOSIVE ODOURS TO IMPROVE DOG TRAINING

Researchers developed a real-time mass spectrometer that can detect nine compounds found in explosives at levels comparable to or better than dog detection limits. It was used to test whether contaminated samples led to dogs in bomb detection training making errors.



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