

THIS WEEK IN CHEMISTRY

14TH AUGUST 2016 – 20TH AUGUST 2016

Links to articles & studies for the featured stories are provided at: <http://goo.gl/SjPFy0>



CONTROLLED SODIUM & WATER REACTION REVEALS STAGES

By using a sodium-potassium alloy, and adding hexanol to the water and doing the experiment in an argon atmosphere, the reaction is controlled so it does not explode. This allows observation of the blue colour of free electrons in the solution with the naked eye.



MATCHING GUNSHOT RESIDUES WITH AMMUNITION BRANDS

A new technique matches gunshot residue with specific brands of ammunition for the first time. The method uses a range of technology to identify trace elements and isotopes found in gunshot residue left on shooters, and matches them to brands or batches of ammunition.



POLYIODIDE CHAINS BEHIND IODINE STARCH COLOUR CHANGE

Iodine solution turns blue-black when starch is added – though often seen in chemistry courses, the structural origin remains a mystery. A new study found polyiodide chains are present in the complex. Sulfur is the only other element that can form its own polymeric chain.



NEW WAY TO PRODUCE PROTEIN 2,000 TIMES SWEETER THAN SUGAR

Brazzein is a protein that can be extracted from the West African fruit of the Oubli plant. It's 2,000 times sweeter than sugar, but hard to refine from the fruit on a large scale. Researchers have now used yeast to produce the protein, in the hope of making it commercially viable.



METHANE-FILLED CANYONS ON SATURN'S MOON TITAN

New radar data from NASA's Cassini spacecraft has confirmed that the dark material in Titan's canyons is liquid hydrocarbons. They flow through steep-sided channels on the surface which are up to 570 metres deep, eventually reaching one of Titan's seas.

