

THIS WEEK IN CHEMISTRY

3RD JANUARY 2016 – 9TH JANUARY 2016

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



NEW NEAR-METALLIC PHASE OF HYDROGEN DISCOVERED

By crushing a small amount of hydrogen between two diamond anvils, producing a pressure of 384 gigapascals, a new solid phase of hydrogen was created. It provides insight into Jupiter's atmosphere; models suggest under the great pressure hydrogen is metallic.



SALIVA TEST CAN DETECT GHB AND ALCOHOL POISONINGS

A new saliva-based test is able to detect poisons found in cheaply manufactured alcohol, such as methanol and ethylene glycol, as well as the date rape drug GHB. It could be of use in emergency departments, and the study authors hope to carry out clinical trials in this setting.



FIRST CRYSTAL STRUCTURE OF A DNA ENZYME DETERMINED

After countless attempts over the past two decades, researchers have finally been able to crystallise and analyse the structure of a DNA enzyme that stitches together RNA strands, allowing them to suggest its mechanism of action. It could allow future design of DNA enzymes.



THREE CHEMICALS USED IN FOOD WRAPPERS BANNED IN THE US

The US has banned three potentially hazardous grease and water-repelling compounds previously used to coat paper that comes into contact with food. The perfluoroalkyl compounds haven't been made in the US since 2011, but could still be found in imported packaging.



METALLIC GLUE STICKS METALS TOGETHER EASILY

A new 'metallic glue' can fuse metals without the need for soldering or heat. The 'glue' uses metallic nanorods, coated with indium on one side and gallium on the other. When the two contact, they form a liquid alloy, which then solidifies as it disperses between the nanorod cores.

