

# THIS WEEK IN CHEMISTRY

25<sup>TH</sup> JANUARY - 31<sup>ST</sup> JANUARY 2015

## NEW INSIGHT INTO ALKALI METAL REACTIONS WITH WATER

The explosive reaction of alkali metals & water isn't just down to ignition of the hydrogen produced. The rapid loss of electrons to water causes a 'coulomb explosion' as the positive ions repel, which sends spikes of metal into the water & triggers the violent reaction.



## BEER CHEMICAL COULD SLOW ALZHEIMER'S & PARKINSON'S

Oxidative damage to neuronal cells has been earmarked as a contributor to diseases originating in the brain. Xanthohumol, a compound found in hops, was shown in lab tests to help prevent neuronal cells from this oxidative damage.



## NEW PROCESS CAN 'UNCOOK' EGG WHITE PROTEINS

An Australian study 'uncooked' an egg white protein to demonstrate the utility of a new technique, which allows tangled proteins to be pulled apart and restored to their original form. It could have important implications for industrial protein production.



## EU STUDY PLAYS DOWN HEALTH RISK OF BPA IN PLASTICS

A new EU review on the safety of BPA, often used in food & drink packaging, concluded current levels of exposure do not pose a risk to health. Though the review lowered the stated 'safe level' per day, it clarified that dietary exposure is still 3 to 5 times lower than this.



## MONITORING REACTIONS AT A TRILLIONTH OF A SECOND

Researchers used ultrafast laser spectroscopy, combined with computer simulations, to study a reaction on a timescale matching that of molecular collisions. The methods used could help advance understanding of other chemical processes.



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