

# THIS WEEK IN CHEMISTRY

12<sup>TH</sup> APRIL - 18<sup>TH</sup> APRIL 2015

## PLANETARY COLLISION THEORY FOR ISOTOPE DISCREPANCY

UK researchers suggest a collision with a Mercury-sized planet could have led to the higher than expected ratio of Nd-142 to Nd-144. This collision could also have led to uranium being incorporated into Earth's core, providing the energy source for its magnetic field.



## DOMESTIC SPONGE HAS HIGH CAPACITY TO ABSORB BPA

By accidentally dropping one into a tank of Bisphenol A (BPA) solution, researchers discovered the household sponge has a high capacity to absorb it. BPA is used to make plastics, but there are concerns about its environmental effects in industrial waste water.



## PORTABLE SENSOR CAN DETECT WHEN MEAT IS DECAYING

A sensor based on carbon nanotubes and using a cobalt-containing metalloporphyrin can detect the amines produced by decaying meat. The porphyrin binds to these amines, producing electrical resistance in the nanotubes, which can then be easily measured.



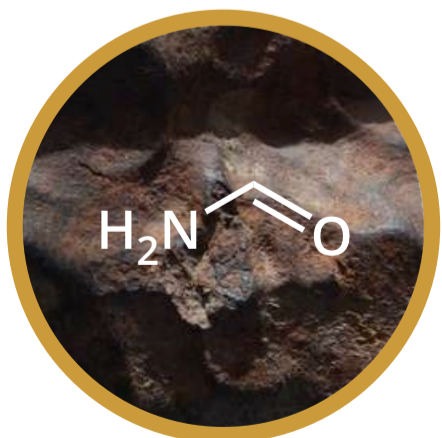
## VODKA & RUM AS CHEAP CHROMATOGRAPHY SOLVENTS

High-Performance Liquid Chromatography (HPLC) is used to analyse components of mixtures. The solvents used are expensive & difficult to dispose of. A new study used commercial distilled alcohols as effective low-cost solvents, combined with ammonia and vinegar.



## INGREDIENTS FOR LIFE FROM METEORITES & SOLAR WIND

Italian scientists successfully synthesised a wide range of organic compounds, including the bases that make up DNA, using only formamide, powdered meteorite, and a simulated solar wind. It suggests meteorites could have brought these compounds to Earth.



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