

THIS WEEK IN CHEMISTRY

11TH DECEMBER 2016 – 17TH DECEMBER 2016

Links to articles & studies for the featured stories are provided at: <https://goo.gl/rtm0XB>



COLOUR-CHANGING LABEL SHOWS FOOD FRESHNESS

Colour-changing indicator labels can give a visual indicator of when food has gone past its 'consume by' date. The label consists of two layers: one generates ammonia, and the other is an ammonia-sensitive indicator which changes colour from blue to yellow.



LIMESTONE PARTICLES COULD HALT OZONE LAYER DEPLETION

Distributing micrometre-sized limestone particles into the upper atmosphere has been proposed as a possible method to fight ozone depletion. The particles would react with and remove acids which generate ozone-destroying nitrogen, chlorine and bromine radicals.



MISSIONS FIND WATER ICE ON CERES AND BORON ON MARS

Data from NASA's Dawn spacecraft has revealed large amounts of water ice just below the surface of the dwarf planet Ceres, which lies between the orbits of Mars and Jupiter. In other news, boron was identified for the first time on Mars by NASA's Curiosity Rover.



GIANT DIAMOND CLUES FOR EARTH'S MANTLE'S COMPOSITION

Investigation of very large diamonds revealed that their origin differs from that of smaller diamonds. Imperfections in the diamonds contain traces of iron, methane, and hydrogen, suggesting they grew from a liquid iron phase deep in the Earth's mantle that can dissolve carbon.



GLOWWORMS CATCH PREY WITH THREADS OF WATER AND UREA

Glowworms spin sticky silk threads to trap their prey. New research has shown that the chemical composition of the sticky droplets on these threads is mainly water – but also the glowworm's waste products. Urea, regurgitated by the glowworms, helps make the droplets sticky.

