

THIS WEEK IN CHEMISTRY

11TH JUNE 2017 – 17TH JUNE 2017

Links to articles & studies for the featured stories are provided at: <https://goo.gl/aV7Q2K>



DYE MOLECULES GIVE MULTI-COLOURED SOLAR PANELS

By adding varying amounts of an organic dye to a polymer blend used to make solar cells, scientists have been able to produce them in a range of colours from blue-green to purple. The colour also helps transfer energy within the cell, meaning it is not just aesthetic.



PUREST SILICON SPHERE EVER WILL REDEFINE THE KILOGRAM

The silicon sphere which will help redefine the kilogram in 2018 has been shown to be the purest silicon ever made. The largest impurity was copper, present at just one atom for every 3 billion silicon atoms. Minor impurities of other elements are also present.



DIRTY ALUMINIUM FOIL RECYCLED INTO EFFECTIVE CATALYST

Clean aluminium foil is easy to recycle, but dirty or greasy foil poses more of a problem. A new crystallisation method recycles this dirty foil into pure aluminium salts. These were used to make aluminium oxide catalysts, cheaper and better than commercial equivalents.



BROCCOLI EXTRACT LOWERS BLOOD SUGAR IN TRIAL

A powder containing concentrated sulforaphane, a chemical found in broccoli, has been shown in a trial to lower blood sugar in patients with type 2 diabetes. Further trials are still needed to see if it would be practical to use it as a treatment for diabetes.



BETLES INSPIRE COLOUR-CHANGING NANOPARTICLES

Inspired by beetle shells' structural colours that give varying hues at different angles, scientists produced structural colours using a technique which gives control over the size and spacing of the nanoparticles. The colour can also be modified once fabricated.

