THIS WEEK IN CHEMISTRY

16TH APRIL 2017 – 22ND APRIL 2017

Links to articles & studies for the featured stories are provided at: https://goo.gl/mL0Mz9

NAKED MOLE RATS ALTER METABOLISM TO AVOID SUFFOCATION

Researchers have discovered that the reason naked mole rats are able to survive without oxygen for up to 18 minutes is because they can alter their metabolism, switching to using fructose instead of glucose to fuel energy-producing pathways for cells.

SILICA NANOPARTICLE INK HELPS MAKE 3D PRINTED GLASS

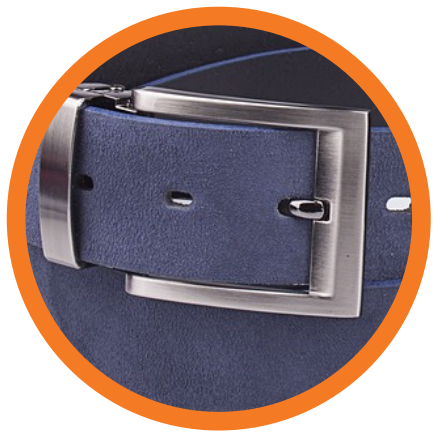
3D printing has been growing in popularity, but 3D printing glass has proved difficult. A new mixture of silica nanoparticles and monomers (polymer building blocks) changes this, and can ultimately produce small pure glass objects.

BLUE LIGHT FROM PHONES DAMAGES RETINAL CELLS

A study found that exposing cells from the retina (the light sensitive tissue in the eye) to blue light typical of that emitted by phone screens increased the generation of reactive oxygen species and cell death. Tests in humans are needed to confirm the findings.

VELCRO-INSPIRED FIBRES COULD FIND JET ENGINE USES

Silicon carbide fibres which interlock like Velcro could help the development of lightweight parts for jet and spacecraft engines. Interlocking hooks on the surface of the fibres stop them sliding past each other and make them resistant to temperature changes.



RESEARCHERS CREATE THE FIRST CARBON NANOBELT

Chemists imagined belt-shaped compounds made up of benzene rings as long ago as the 1950s, but none have ever been made – until now. Japanese scientists have synthesised the first carbon nanobelt compound, made up of 12 benzene rings, albeit with a 1% yield.