THIS WEEK IN CHEMISTRY

20TH AUGUST 2017 – 26TH AUGUST 2017

Links to articles & studies for the featured stories are provided at: https://goo.gl/wz3GAV

YEAST RECYCLES URINE INTO FATTY ACIDS AND POLYMERS

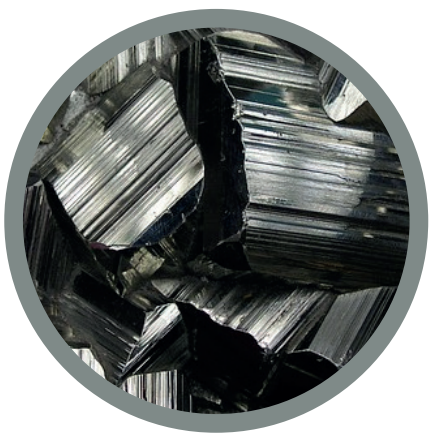
Scientists have developed a strain of yeast which recycles urine and carbon dioxide into omega-3 fatty acids and polymers. It's suggested that the yeast could find applications in space travel, as the fatty acids could serve as nutritional supplements for astronauts.

ANALYSING WATER QUALITY FROM WATER DROPLET EVAPORATION

New research uses the unique patterns formed by water droplets as they dry to determine water quality. Different ions dissolved in the water lead to different residue patterns as the water evaporates and dissolved solid compounds are left behind.

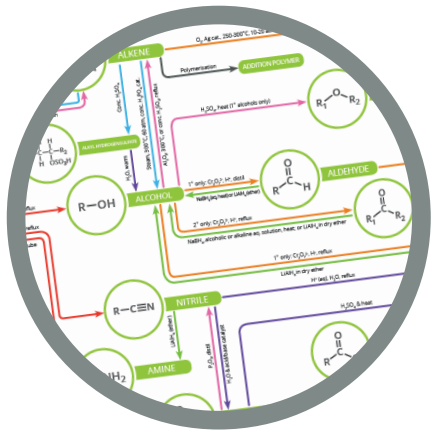
MAGNETIC BEADS CLEAN UP SUNBLOCK CHEMICAL FROM THE SEA

Oxybenzone, a compound used in 80% of sunscreen products, has been linked to bleaching of coral reefs. New absorbent beads made of iron oxide nanoparticles can absorb and remove oxybenzone from water. The beads are non-toxic and can be re-used.



MICROWAVES REVEAL NEW PROPERTIES OF BLACK PHOSPHORUS

Black phosphorus is a 2D allotrope of phosphorus. A team of German and Hungarian chemists analysing it confirmed some of its expected electronic properties, but also found that it may be a good microwave absorber, potentially leading to applications in electronic devices.



ALGORITHM SUCCESSFULLY MAPS OUT REACTION ROUTES

An algorithm modeled on Google's AlphaGo can be used to rapidly determine the series of reactions needed to make a target molecule. 57% of chemists questioned prefered the AI's route to those designed by chemists. However, the AI currently excludes sterochemistry.

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