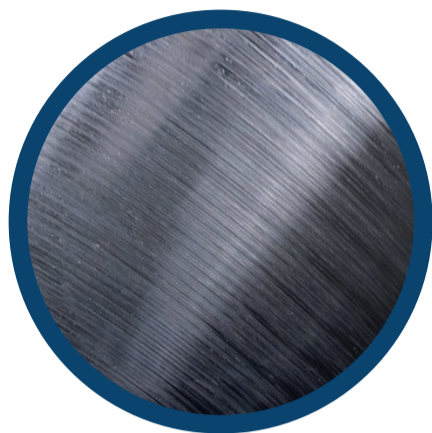


THIS WEEK IN CHEMISTRY

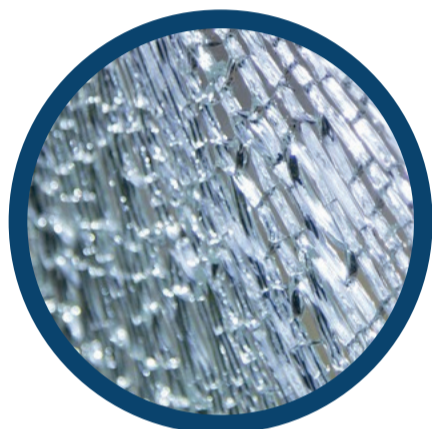
22ND OCTOBER 2017 – 28TH OCTOBER 2017

Links to articles & studies for the featured stories are provided at: <https://goo.gl/fA2Lth>



FIRST STABLE MOLECULE WITH AN ALUMINIUM DOUBLE BOND

Chemists have successfully made the first stable dialumene – a molecule containing an aluminium-aluminium double bond. The compound is in the form of dark purple crystals. It's stable as long as it isn't exposed to air, water, or certain solvents.



RESEARCHERS ARGUE FOR GLASS TO BE DEFINED AS A LIQUID

Glass breaks like a solid, but can flow like a liquid. It is defined as a non-crystalline solid; researchers argue it should instead be defined as “a non-crystalline state of matter that appears solid on a short time scale but continuously relaxes towards the liquid state.”



TOOTHPASTE COMPOUNDS BUILD UP IN TOOTHBRUSHES

Research has shown that compounds in toothpaste can build up in toothbrushes over time. This includes the antimicrobial compound triclosan. It does not build up to harmful levels, but represents another source of exposure for both humans and the environment.



FUEL ADDITIVE NANOPARTICLES AFFECT SUMMER BEES

Cerium oxide nanoparticles are widely used as fuel additives. New research has found they disrupt enzymes in honeybees associated with learning and toxin removal. The bees collected in summer months during the study were more affected than those in autumn months.



TYROSINE EXCESS LEADS TO RED COLOUR OF BEETROOT

Betalain compounds that give beetroot its colour are made from the amino acid tyrosine. A tyrosine-making enzyme, usually switched off in other plants when enough is made, stays turned on in beetroot. Beetroot developed enzymes to turn excess tyrosine into betalains.

