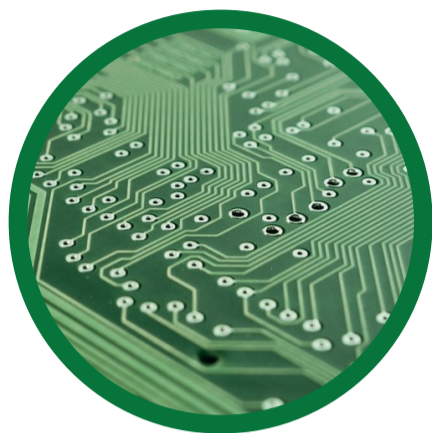


# THIS WEEK IN CHEMISTRY

3<sup>RD</sup> SEPTEMBER 2017 – 9<sup>TH</sup> SEPTEMBER 2017

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



## SELF-DESTRUCTING CIRCUITRY FOR ELECTRONIC DEVICES

New self-destructing electronic devices use a polyanhydride base for their circuitry, which reacts with water vapour in air and breaks down over time. The carboxylic acid released also breaks down the electronic components. Military applications are being explored.



## MUTATION STOPS POISON DART FROGS POISONING THEMSELVES

Columbian poison dart frogs hold enough batrachotoxin poison, which kills by disrupting nerve activity, to kill over 20,000 mice. New research shows they are protected from the toxin by a single amino acid mutation in their version of the sodium channel protein.



## PROBLEMS WITH PAINTS THAT REMOVE AIR POLLUTION

New research has shown photocatalytic paints designed to reduce air pollution may cause their own problems. While they do break down some pollutants, they also release significant quantities of nanoparticles and volatile organic compounds over their lifetime.



## NANODIAMONDS MAKE LITHIUM BATTERIES SAFER

By adding small amounts of nanodiamonds to electrolytes in lithium ion batteries, the risk of battery short-circuiting is decreased. The nanodiamonds prevent lithium ions from accumulating and forming dendrites, needle-like structures which can damage the battery.



## MISIDENTIFIED MOLECULE REVISION FOR 15-YEAR-OLD PAPER

15 years after publishing a paper in 2002, researchers realised during new work that the structure of a molecule central to the original paper was incorrect. The paper was retracted and a new paper detailing the correct structure of the molecule was published.

