THIS WEEK IN CHEMISTRY

13TH NOVEMBER 2016 – 19TH NOVEMBER 2016

Links to articles & studies for the featured stories are provided at: https://goo.gl/A13cG4

CHEMICAL TRACES ALLOW PHONES TO BE MATCHED TO OWNERS

Using samples from phone owners and their phones, scientists were able to identify the phones' owners with a 69% success rate. They could also identify medications and insect repellents previously used by the owners. It could have applications in forensic analysis.

AMMONIA FROM BIRD DROPPINGS HELPS KEEP THE ARCTIC COOL

Atmospheric chemists have found sea-bird droppings in the Arctic help cool the climate, as they release ammonia which helps form particles which in turn help cloud formation. Climate change effects on the migration patterns of these birds could affect cloud seeding.

CHEMISTS SYNTHESISE POISON DART FROG TOXIN ISOMERS

Chemists have successfully synthesised two isomers of batrachotoxin, the poison found in the skin of poison dart frogs. This is useful as the isomer found in the frogs can be used as a tool to study sodium-ion channels in the body, but poison dart frogs are becoming scarce.

STRETCHABLE, SWEAT-POWERED SENSORS IN SOCKS

Researchers have successfully created socks which contain sweat-powered sensors capable of detecting glucose and lactate levels. The socks don't suffer from power loss due to stretching and twisting thanks to the use of stretchable carbon nanotube-based inks.

IDENTIFYING THE ORIGINAL COLOUR OF A FINNISH PALACE CLOCK

Researchers renovating the Government Palace in Helsinki, Finland, had difficulty identifying the original colour of the clock faces when the palace was built in 1822. They turned to chemistry and spectroscopy to identify the carbon-based black paint originally used.