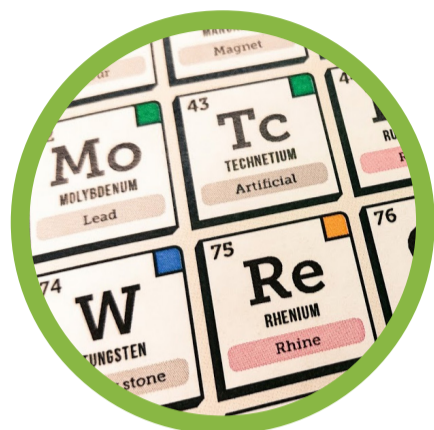


THIS WEEK IN CHEMISTRY

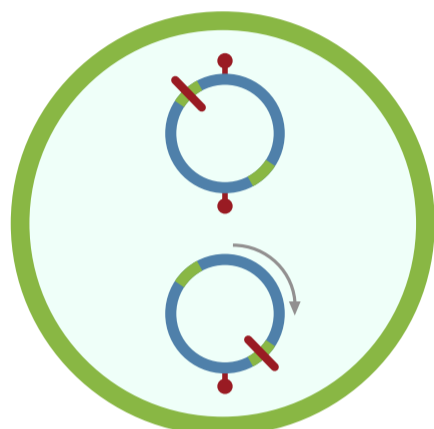
5TH JUNE 2016 – 11TH JUNE 2016

Links to articles & studies for the featured stories are provided at:



NAMES PROPOSED FOR PERIODIC TABLE'S FOUR NEW ELEMENTS

The periodic table's four new elements, the discoveries of which were confirmed at the turn of the year, have been given names: nihonium (113), moscovium (115), tennessine (117), and oganesson (118). After a five month public review period, they'll be officially confirmed.



FIRST AUTONOMOUS CHEMICALLY-FUELLED MOLECULAR MOTORS

UK-based scientists created a molecular motor driven by 'chemical fuel', mimicking animal motor proteins. It involves two interlocking ring-shaped molecules; one is driven in one direction around the other by addition and removal of 'fuel' molecules on the main ring.



ROCK-INJECTED CARBON DIOXIDE SOLIDIFIES WITHIN TWO YEARS

An Icelandic project discovered that carbon dioxide mixed with water and injected into basalt rocks solidifies into carbonate minerals within two years. The method uses 25 tons of water for every ton of CO₂ stored, but adds to potential carbon storage techniques.



ARTIFICIAL LEAF'S EFFICIENCY EXCEEDS THAT OF PLANTS

US scientists created an electrochemical cell that converts solar energy into various alcohols. The carbon dioxide reduction energy efficiency of the system is around 10%. By comparison, plants only convert about 1% of the solar energy they absorb into sugars.



RODENT RESEARCH SUGGESTS ACETATE ROLE IN OBESITY

Research in rats has shown that when they were fed a high-fat diet, their gut microbes produced increased levels of acetate. This can activate parts of the nervous system which lead to increased fat storage, and increases levels of a 'hunger hormone' also implicated in fat storage.

