

THIS WEEK IN CHEMISTRY

1ST NOVEMBER - 6TH NOVEMBER 2015

SELF-FOLDING, REMOTE CONTROLLED GRAPHENE CRAWLERS

Scientists at Donghua University developed a self-folding graphene oxide 'paper'. It absorbs water from air, which is then released when it is exposed to heat or near-infrared light, causing folding. It can be used to grab and lift items and make 'crawling' devices.



AMINO ACIDS HELP DETERMINE SEX OF FINGERPRINTS

New research suggests that the amino acids contained within the sweat left with fingerprints can be used to determine the sex of the person who left them. The amino acids are extracted from the fingerprint, then a colorimetric test using two enzymes is used.



SEAWATER SELENIUM DROPS PRECEDED MASS EXTINCTIONS

A new study has found that, prior to three of Earth's largest mass extinctions, selenium concentrations in seawater dropped drastically. Selenium is essential for many marine organisms, and a decrease could have had significant effects on ocean ecosystems.



REMOVING AMERICIUM FROM SPENT NUCLEAR FUEL

Americium, previously one of the hardest radioactive elements to remove from nuclear waste, can be removed using a new method which oxidises it using electricity to make it easier to extract. It could then be converted in a reactor into more stable elements.



HYDROGEN BONDING INVOLVING PHOSPHORUS DETECTED

Chemists have detected an intermolecular hydrogen bond between an N-H and phosphorus atom in the gas phase. It is the first time phosphorus has been observed as a hydrogen bond acceptor; in the environment studied it was a stronger acceptor than oxygen.



CREATED BY COMPOUND INTEREST  #TWIChem

Twitter: @compoundchem | Facebook: www.facebook.com/compoundchem

Links to articles & research papers: <http://goo.gl/F5nJ83>

