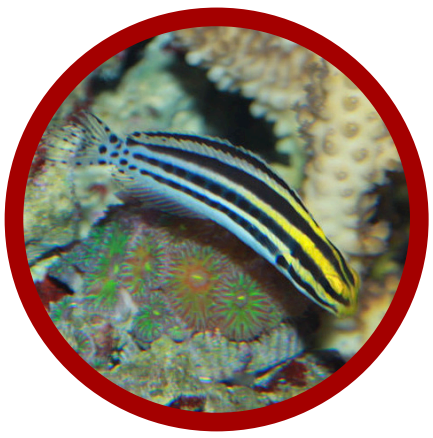
THIS WEEK IN CHEMISTRY

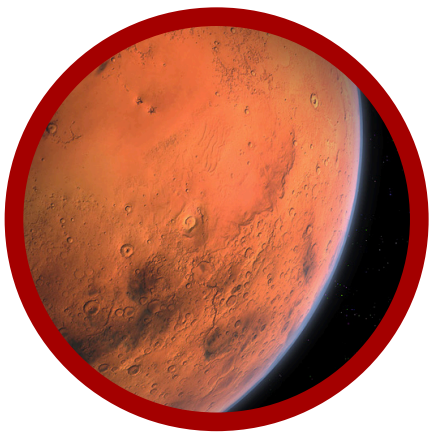
26TH MARCH 2017 – 1ST APRIL 2017

Links to articles & studies for the featured stories are provided at: https://goo.gl/7CfHyO



TINY FISH USES OPIOID VENOM ON POTENTIAL PREDATORS

Fang blennies are small tropical fish that use venom on their potential predators. New research shows that their venom contains painkiller-like opioid compounds, which are thought to lower the predator's blood pressure and slacken the grip of their jaws.



ISOTOPE DATA SHOWS HOW MARS LOST ITS ATMOSPHERE

Argon isotope data from the Maven space probe found that Mars is rich in one argon isotope but depleted of its lightest, due to the solar wind. Over the past 4 billion years 66% of the lightest isotope has been lost, along with large amounts of other gases.

IMPROVING BODY ARMOUR WITH POLYMERS AND NANOTUBES

Chinese scientists have improved Kevlar body armour with impact-responsive polymers. The material is flexible but stiffens on impact. They also included a network of conductive carbon nanotubes in the composite, allowing force and location of impacts to be detected.

PRINTED SENSORS TURN GLOVES INTO NERVE AGENT DETECTORS

By printing stretchable conductive inks onto rubber gloves, they can be used as a sensor to detect phosphorus-based compounds, including those found in nerve agents and some pesticides. The gloves could be used for weapons screening and food safety applications.

THE LONGEST ACENE EVER MADE AS A PURE SOLID

Heptacene, a compound which consists of seven benzene rings fused linearly together, has been isolated by researchers in Germany and the US, and is the longest acene ever made as a pure solid. It could have uses in solar cells, though its instability might limit its usefulness.