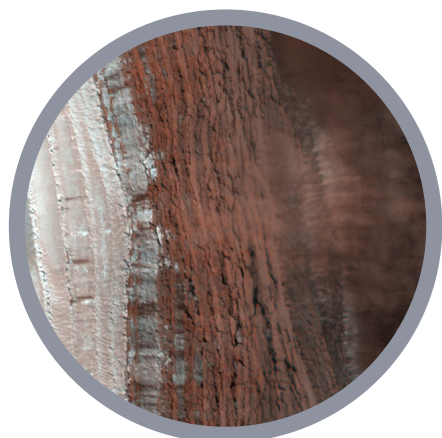


THIS WEEK IN CHEMISTRY

27TH SEPTEMBER - 4TH OCTOBER 2015

EVIDENCE OF FLOWING SALTY WATER ON MARS

NASA has determined that a network of streaks on Mars which grow and fade are evidence of flowing salty water. The chlorate & perchlorate salts absorb water vapour from the atmosphere and lower water's freezing point, allowing it to exist as a liquid.



STRONGER & LONGER-LASTING NANOPARTICLE SUNSCREEN

A new sunscreen composed of nanoparticles that adhere tightly to proteins on the skin's surface only requires 5% of the UV-shielding chemicals in normal sunscreen. It is water resistant and stays on for at least 5 days, and proved effective in tests in mice.



CREATING BATTERIES FROM PORTABELLA MUSHROOMS

A new lithium-ion battery anode uses portabella mushrooms as a starting material. Their highly porous structure creates more space for energy storage and transfer, and the mushrooms' high potassium salt concentration increases their capacity.



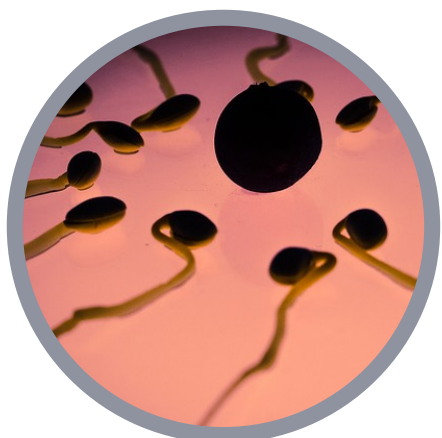
POLYMER ADDITIVE REDUCES PLANE FUEL FIRE RISK

Self-assembling 'megasupramolecules' can be used to help stop plane fuel droplets breaking up into a fine mist, reducing the severity of fires in aviation disasters. The molecules could also find uses in conventional automobile fuel.



MOUSE STUDY COULD LEAD TO NEW MALE CONTRACEPTIVE

By blocking a protein called calcineurin in male mice, the animals were rendered temporarily infertile. The protein is also present in human sperm, and though animal studies don't always translate to humans, it's hoped a drug can be developed to target the protein.



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