DISCOVERIES OF FOUR NEW ELEMENTS OFFICIALLY CONFIRMED

The discoveries of elements 113, 115, 117 and 118 have been officially confirmed, paving the way for them to be added to the periodic table. The discoverers will be invited to suggest names and symbols. These discoveries complete the periodic table's seventh period.

EVIDENCE FOR WATER ON MARS MAY BE DUE TO DRY ICE

The gullies that have been observed on Mars, rather than being created by flowing water, could have been created by dry ice, a new study suggests. It suggests pressure changes in pockets of frozen carbon dioxide could lead to periodic ‘eruptions’, causing the surface features.

INJECTABLE CALCIUM PHOSPHATE FOAM REPAIRS BONES

A self-setting calcium phosphate cement foam, created using a hydrogel as a foaming agent, can be injected into bone defects and helps the formation of new bone. The material could help treat bone injuries and patients suffering from bone diseases like osteoporosis.

CERAMIC NANOPARTICLES CREATE HIGH STRENGTH METAL

Researchers have created a strong but light metal by infusing magnesium with evenly dispersed silicon carbide nanoparticles. These nanoparticles help enhance the strength and durability of the metal, giving it a higher strength than most structural metals.

SAFER IONIC CHEMICAL PROPELLANTS FOR ROCKET FUELS

A new family of ionic chemical propellants could replace the unstable and toxic hydrazine-based fuels commonly used in rockets. The borohydride-rich ionic liquids have short ignition times, low viscosities, and are more stable to moisture than other existing ionic propellants.

Links to articles & studies for the featured stories are provided at: http://goo.gl/FA6b9T