NEWLY DISCOVERED BACTERIA MUNCHES ON COMMON PLASTIC

A new bacterium has been discovered by researchers in Japan that is capable of eating the plastic PET (polyethylene terephthalate). PET is used to make water bottles and a large number of other products. In the future, it could help increase recycle rates of the polymer.

NEW TYPE OF HYDROGEN BOND INVOLVING BORON DISCOVERED

A new class of hydrogen bond has been found to form between the B–H bonds in diborane and the electron system of a benzene ring. The interaction was observed experimentally in the gas phase, and is comparable in strength to water’s hydrogen bonds.

NEW SPRAY-ON COATING IS THE MOST ICE-REPELLENT EVER

Scientists in the US used an elastomer, polydimethylsiloxane (PDMS), and oil to create an ice-repellent coating. Adding an oil reduces cross-linking between the PDMS chains, reducing ice adhesion to the coating to the lowest value ever achieved with an ice-phobic coating.

HEATING SUGAR & SALT CREATES NEW NOODLY FORM OF CARBON

German researchers made a new flat form of carbon by simply heating sugar and salt. Sheets of the material are made up of interlinked carbon nanoribbons, and look like a block of noodles. It resembles graphene, but contains a greater number of non-carbon atoms, such as nitrogen.

FULLERENE CAGE AFFORDS VIEW OF HYDROGEN BOND FORMATION

By trapping two molecules of water inside a fullerene cage, researchers have been able to form a hydrogen bond between two water molecules and observe the water dimer created. It’s the first time the dimer has been isolated, and it could help us learn more about hydrogen bonding.