

THIS WEEK IN CHEMISTRY

22ND MARCH - 28TH MARCH 2015

'FLATTENED' WATER CREATES NEW CRYSTALLINE FORM OF ICE

'Flattening' water between two sheets of graphene produced a new form of ice, with its molecules arranged in a grid-like pattern. The researchers estimate that the graphene sheets must exert more than 10,000 times atmospheric pressure to produce the structure.



NEW EXPLANATION FOR COOKED LOBSTER COLOUR CHANGE

In lobsters and similar crustaceans, unbinding of the compound astaxanthin from a protein, crustacyanin, causes their colour change when cooked. When bound to the protein, astaxanthin is in a blue enolate form, which helps explain the colour shift on cooking.



NEW GRAPHENE-CONTAINING LIGHT BULB SET FOR SALE

A new light bulb, which will go on sale later this year, contains a filament-shaped LED coated in graphene, and uses 10% less energy than conventional bulbs. Those behind the project state it will be the first commercially viable product to utilise graphene.



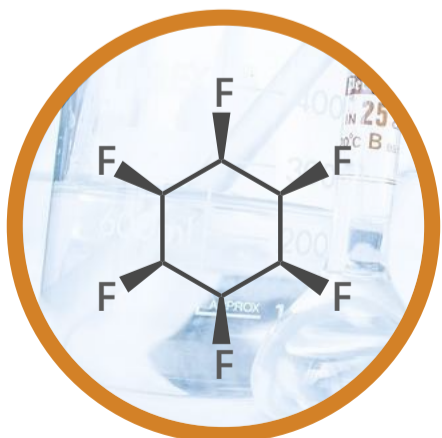
MAKING ANTIBACTERIAL PLASTICS USING EGG WHITES

Researchers investigating bioplastics found that the protein in egg whites, albumin, showed antibacterial properties when blended with plasticisers like glycerol. The plastic is also biodegradable, and could be used in both food and medical packaging.



MOST POLAR NON-IONIC COMPOUND SYNTHESISED

Chemists have made a compound containing a cyclohexane ring, with a fluorine attached to each carbon. Each of the fluorine atoms is pointing 'up', making the compound the most polar non-ionic compound known. It could have applications in liquid crystals.



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