

# THIS WEEK IN CHEMISTRY

3<sup>RD</sup> MAY - 9<sup>TH</sup> MAY 2015

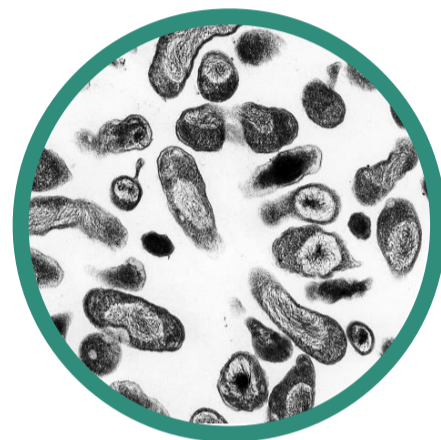
## USING A COFFEE MACHINE FOR A CHEMICAL EXTRACTION

Chemists at the University of Tasmania have developed a method for the extraction of shikimic acid, an important precursor to Tamiflu, using an espresso machine. They used ground star anise and a hot ethanol-water mixture to obtain a 5.5% yield of the compound.



## DEAD SILVER-TREATED BACTERIA KILL NEARBY BACTERIA

Silver is commonly used as an antimicrobial. By introducing bacteria killed with silver to a solution of live bacteria, researchers have shown the dead bacteria were capable of killing the live bacteria by leaching silver, acting as 'reservoirs for further killing.'



## X-RAYS SHOW HOW CHOCOLATE 'FAT BLOOM' OCCURS

White patches appearing on chocolate, known as 'fat bloom', is a well known phenomenon. Using X-rays, scientists have now been able to observe it forming. They suggest reduced porosity of chocolate and cooler storage conditions could help prevent the process.



## MOLECULE CAN STORE SOLAR ENERGY FOR 100 YEARS

Researchers have developed a new molecule capable of absorbing and storing solar energy. A kilogram of the molecules could boil 750ml of water in just 3 minutes; however, there are still issues getting the molecules to release the energy on demand.



## GOLD-PLATED ONION CELLS CREATE ARTIFICIAL MUSCLE

Researchers found that onion skin cell structure was similar to that of the polymer muscle they were attempting to produce. After pre-treating the skin with sulfuric acid, they deposited gold on the cells. An applied voltage makes them contract & bend like human muscle.



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