

# THIS WEEK IN CHEMISTRY

12<sup>TH</sup> JUNE 2016 – 18<sup>TH</sup> JUNE 2016

Links to articles & studies for the featured stories are provided at: <http://goo.gl/MqAY7r>



## THE FIRST DETECTION OF A CHIRAL MOLECULE IN SPACE

Chemists have detected a chiral molecule (a molecule that has non-superimposable mirror images, like left and right hands) in an interstellar cloud near Milky Way's centre. Though chiral molecules have been found on meteorites, this is the first to be found in space.



## EXTRACTING SOIL PAH COMPOUNDS WITH ESPRESSO MACHINES

Polycyclic aromatic hydrocarbons (PAHs) are carcinogenic, and can be found in soil due to forest fires and industrial processes. A new method for quantifying them uses an espresso machine to extract them from soil, before further analysis with chromatography.



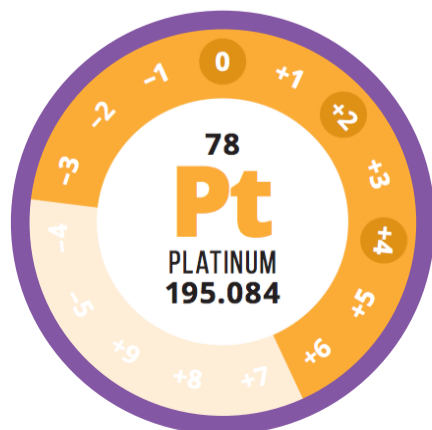
## CHILLED COFFEE BEANS MAKE FOR BETTER TASTING COFFEE

Freezing coffee beans before you grind them could improve the flavour of your morning coffee, according to chemists. They found that the size of the ground particles was more consistent when beans were chilled before grinding, giving higher extractions with less flavour variance.



## MAKING METAL ORGANIC FRAMEWORKS FROM PLASTIC BOTTLES

Metal organic frameworks (MOFs) are porous polymers with potential applications in gas storage and catalysis, but current ways of making them are expensive. A new cheaper and more sustainable technique hydrolyses PET plastic bottles and synthesises MOFs in one step



## +10 OXIDATION STATE PLATINUM COMPOUND PREDICTED

Last year the +9 oxidation state was observed by a team of Chinese chemists in an iridium oxide,  $[\text{IrO}_4]^+$ , making it the highest observed oxidation state. Chemists have now used calculations to predict that a platinum oxide,  $[\text{PtO}_4]^{2+}$ , is most stable in the +10 oxidation state.

