

## Media Release

### Chiefs of Staff, News Directors

Monday 25 May 2015

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## Chemists brew up new spice extraction method

Chemists in the University of Tasmania's School of Physical Sciences have developed a novel method for the extraction and isolation of a chemical compound from the popular spice star anise: by using an espresso machine.

Shikimic acid, found in star anise, is important in the pharmaceutical industry and medical research. Shikimic acid is the precursor for the anti-viral drug Tamiflu.

The researchers, Dr Jason Smith and Dr Alex Bissember, first got the idea during their morning coffee and recognised the similarity between the process of making coffee and isolating chemical compounds from plant materials.

They ground up the star anise, mixed it with sand, then used a hot water/ethanol mixture to rapidly extract the compounds. They found the method to be both fast and effective.

"This method enables the particularly rapid isolation of natural products while minimising extraction of plant pigments that often complicate purification," said Dr Bissember.

"The temperature and function of a coffee machine was perfect for this kind of work; they are designed to extract flavour and aroma compounds. We found it hard to believe this method had never been tried before."

Dr Smith, who took his old coffee machine into the lab for the experiment, said it was possible the relatively inexpensive machines could become standard equipment in chemistry labs.

The research has been published in *Organic Letters*, a premiere journal for organic chemists.

**Information released by:**

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