

THIS WEEK IN CHEMISTRY

27TH APRIL - 3RD MAY 2015

LEAFCUTTER ANTS CONTROL PARASITES WITH CHEMISTRY

New research has found leafcutter ants combat a specific parasite by secreting phenylacetic acid from their thorax. The researchers speculate that they only use the acid on infected areas using a precise method, to avoid the fungi developing increased resistance.



PROTEIN COULD EXPLAIN EFFECTS OF ILLNESS ON TASTE

People suffering with infections tend to have higher levels of the TNF-alpha protein. Researchers have now shown that mice bred to be unable to produce this protein were less sensitive to bitter tastes. The team behind the research now plans human experiments.



NEW EMULSION COULD HELP CUT SALT LEVELS IN FOOD

A new method traps salt in an emulsion made from modified starch. In the mouth, saliva hydrolyses the starch, releasing the salt. Tests showed that subjects didn't notice a reduction in saltiness, even when salt content was reduced by a fifth using the method.



HOW BOMBARDIER BEETLES PRODUCE CHEMICAL SPRAY

The mechanism bombardier beetles use to produce their noxious spray has been uncovered. A droplet of hydrogen peroxide & hydroquinones is forced from one gland chamber to another, where it combines with peroxidase and catalysts to produce the spray.



DISORGANISED DNA MAY CONTRIBUTE TO AGEING

A study has suggested that how cells wrap genetic material around proteins could have a role in ageing. DNA is wrapped around proteins in cells to form chromatin. The arrangement of this chromatin was less orderly in older test subjects.



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