

Tiny 'skyscrapers' help bacteria convert sunlight into electricity

[Researchers have made tiny 'skyscrapers' for communities of bacteria](#), helping them to generate electricity from just sunlight and water. The researchers, from the University of Cambridge, used 3D printing to create grids of high-rise 'nano-housing' where sun-loving bacteria can grow quickly. The researchers were then able to extract the bacteria's waste electrons, left over from photosynthesis, which could be used to power small electronics.

Caribbean coral reefs have been warming for at least 100 years

[A new analysis outlines 150 years of sea-surface temperature history throughout the Greater Caribbean region, highlighting significant warming trends](#) that have disrupted coral reef ecosystems. Colleen Bove of the University of North Carolina at Chapel Hill and colleagues present these findings in the open-access journal PLOS Climate on March 9.

Artificial intelligence predicts algae potential as alternative energy source

[Texas A&M AgriLife Research scientists are using artificial intelligence to set a new world record for producing algae as a reliable, economic source for biofuel](#) that can be used as an alternative fuel source for jet aircraft and other transportation needs.

Stunning new-to-science fairy wrasse is first-ever fish described by a Maldivian scientist

[A mesmerizing new addition is the first-ever to be formally described -- the scientific process an organism goes through to be recognized as a new species](#) -- by a Maldivian researcher. The new-to-science Rose-Veiled Fairy Wrasse (*Cirrhilabrus finifenmaa*), described today in the journal ZooKeys, is also one of the first species to have its name derived from the local Dhivehi language, 'finifenmaa' meaning 'rose', a nod to both its pink hues and the island nation's national flower. Scientists from the California Academy of Sciences, the University of Sydney, the Maldives Marine Research Institute (MMRI), and the Field Museum collaborated on the discovery as part of the Academy's Hope for Reefs initiative aimed at better understanding and protecting coral reefs around the world.

Natural gas flares likely source of respiratory illness spike

[Flaring of natural gas from oil wells appeared to cause an increase of around 11,000 hospital visits for respiratory reasons](#) in North Dakota up to 60 miles away from oil drilling sites, according to new research. Natural gas is often thought of as a "clean" energy, but that's because it is captured and processed when used for electricity or to fuel vehicles. The raw gas released from drilling is contaminated with a wide variety of pollutants.

Safer, more powerful batteries for electric cars, power grid

[A new study tackled a long-held assumption that adding some liquid electrolyte to improve performance would make solid-state batteries unsafe](#). Instead, the research team found that in many cases solid-state batteries with a little liquid electrolyte were safer than their lithium-ion counterparts. They also found, if the battery were to short-circuit, releasing all its stored energy, the theoretically super-safe, all-solid-state battery could put out a dangerous amount of heat.