

Environment News Futures

Antarctic Ice may Melt 20 Years Sooner than Estimated—Global Sea Levels Likely to Rise by an Additional Three Inches by 2100

Global sea levels may rise by 2.7 to 4.3 inches by 2100, ...

Read more at:

https://www.businessinsider.in/science/environment/news/antarctic-ice-may-melt-20-years-sooner-than-estimated-global-sea-levels-likely-to-rise-by-an-additional-three-inches-by-2100/articleshow/78600166.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst

Modern Humans Reached Westernmost Europe 5,000 Years Earlier than Previously Known

Discovery may indicate modern humans and Neanderthals lived in the area concurrently

28 September 2020—University of Louisville

Modern humans arrived in westernmost Europe 41,000 to 38,000 years ago, about 5,000 years earlier than previously known, according to an international team of researchers that discovered stone tools used by modern humans dated to the earlier time period in a cave near the Atlantic coast of central Portugal. The tools document the presence of modern humans at a time when Neanderthals were thought to be present in the region.

Plastic-eating Enzyme ‘Cocktail’ Heralds New Hope for Plastic Waste

28 September 2020—University of Portsmouth

The same team who re-engineered the plastic-eating enzyme PETase have now created an enzyme ‘cocktail’ which can digest plastic up to six times faster.

Remote Control of Blood Sugar: Electromagnetic Fields Treat Diabetes in Animal Models

Study suggests EMFs alter redox signaling to improve insulin sensitivity

6 October 2020—University of Iowa Health Care

Researchers may have discovered a safe new way to manage blood sugar non-invasively. Exposing diabetic mice to a combination of static electric and magnetic fields for a few hours per day normalizes blood sugar and insulin resistance. The unexpected and surprising discovery raises the possibility of using electromagnetic fields (EMFs) as a remote control to manage type 2 diabetes.

Possible Marker of Life Spotted on Venus

14 September 2020—ESO

Astronomers have discovered a rare molecule—phosphine—in the clouds of Venus. On Earth, this gas is only made industrially or by microbes that thrive in oxygen-free environments. Astronomers have speculated for decades that high clouds on Venus could offer a home for microbes—floating free of the scorching surface but needing to tolerate very high acidity. The detection of phosphine could point to such extra-terrestrial ‘aerial’ life. (*See snapshot 1*)

The Ancient Neanderthal Hand in Severe COVID-19

30 September 2020—Okinawa Institute of Science and Technology (OIST) Graduate University

Genetic variants that leave their carrier more susceptible to severe COVID-19 are inherited from Neanderthals, a new study finds.

Since first appearing in late 2019, the novel virus, SARS-CoV-2, has had a range of impacts on those it infects. Some people become severely ill with COVID-19, the disease caused by the virus, and require hospitalization, whereas others have mild symptoms or are even asymptomatic. (*See snapshot 2*)

New Key Player in Long-term Memory

Long-term memory controlled by protein synthesis in inhibitory cells

7 October 2020—McGill University

A research team has discovered that during memory consolidation, there are at least two distinct processes taking place in two different brain networks—the excitatory and inhibitory networks.

The excitatory neurons are involved in creating a memory trace, and the inhibitory neurons block out background noise and allow long-term learning to take place.

Planet Mars is at Its ‘Biggest and Brightest’

Get out there and look up!

Mars is at its biggest and brightest right now as the Red Planet lines up with Earth on the same side of the Sun.

Every 26 months, the pair take up this arrangement, moving close together, before then diverging again on their separate orbits around our star.

Tuesday night sees the actual moment of what astronomers call “opposition”. All three bodies will be in a straight line at 23:20 GMT (00:20 BST). “But you don’t have to wait until the middle of the night; even now, at nine or 10 o’clock in the evening, you’ll easily see it over in the southeast,” says astrophotographer, Damian Peach. “You can’t miss it, it’s the brightest star-like object in that part of the sky,” he told BBC News.

Prince William and Sir David Attenborough Join Forces on ‘Earthshot’ Prize

September was World’s ‘Hottest on Record’

By Roger Harrabin

BBC environment analyst

September was the warmest on record globally, according to the weather service Copernicus. It was 0.05C hotter than September last year, which in turn set the previous record high for the month. Scientists say it’s a clear indication of temperatures being driven up by emissions from human society.

Copernicus, which is the European Union’s Earth observation programme, said warmth in the Siberian Arctic continues way above average. And it confirmed that Arctic sea ice is at its second lowest extent since satellite records began. (*See snapshot 3*)