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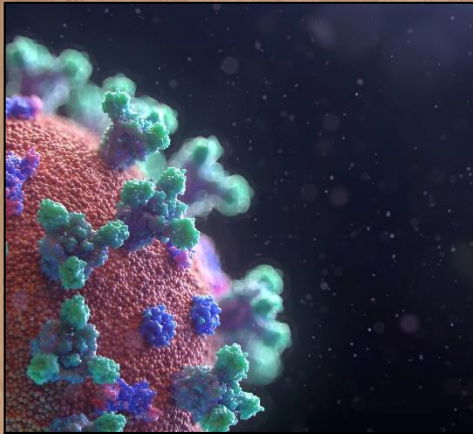


BERCHLY

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PREPARED BY
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CONTENTS



SCIENCE

3



ARTS

5



TECHNOLOGY

7



SPORTS

9

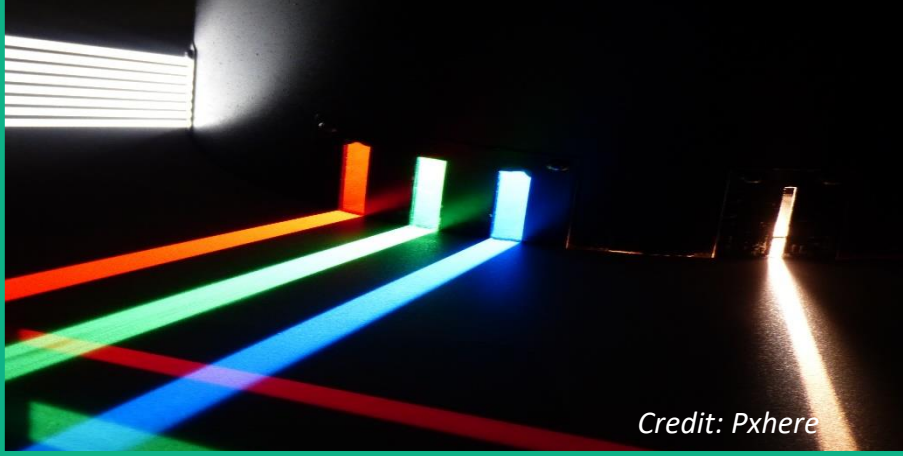
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SCIENCE



Credit: Pxhere

Fusion, recoil, discovery: A new type of atomic nucleus discovered.

(June 24, 2023)

In a remarkable scientific breakthrough researchers have discovered the lightest isotope of the rare and rapidly decaying element, astatine. The discovery of 190-Astatine was made by Master of Science graduate Henna Kokkonen as part of her thesis work, providing important insights into atomic nuclei structure and the boundaries of known matter. An experiment performed in the Accelerator Laboratory of the University of Jyväskylä, Finland, has succeeded in producing a previously unknown atomic nucleus, 190-Astatine, consisting of 85 protons and 105 neutrons. The nucleus is the lightest isotope of astatine discovered to date.

Read more at:

<https://scitechdaily.com/fusion-recoil-discovery-a-new-type-of-atomic-nucleus-discovered/>

New immune system discovery opens new doors for spinal cord injuries.

(June 25, 2023)



A new study suggests that the immune system's capacity to react to spinal cord injuries declines as one ages, but it also highlights potential strategies to boost this response and facilitate patient recovery. The new findings provide critical knowledge about the immune system's reaction to spinal cord injuries, and why this reaction seems to weaken with age. They also underscore the significant contribution of the membranes encircling the spinal cord in initiating the immune response to such injuries.

Representative Image

Read more at:

<https://scitechdaily.com/new-immune-system-discovery-opens-new-doors-for-spinal-cord-injuries/>

Cooler rocky exoplanet ever: James Webb reveals surprising atmosphere of TRAPPIST-1 C.

(June 25, 2023)

NASA's James Webb Space Telescope has discovered that exoplanet TRAPPIST-1 c, despite being the same size as Venus and receiving similar radiation, does not have a thick carbon dioxide atmosphere, making it unlikely to be a Venus analog. The planet, which has the coolest measured temperature for a rocky exoplanet, might have formed with minimal water content.



Read more at:

<https://scitechdaily.com/coolest-rocky-exoplanet-ever-james-webb-reveals-surprising-atmosphere-of-trappist-1-c/>

New Cambridge study: Current climate projections significantly underestimate impact of volcanic eruptions.

(June 25, 2023)

Scientists have discovered that standard climate predictions may undervalue the surface temperature cooling effect of volcanic eruptions by a multiple of two, possibly even four. Despite this, the effect is not substantial enough to counterbalance the global temperature increase triggered by human actions. Led by the University of Cambridge, the team of researchers propose that eruptions of smaller magnitude could be accountable for up to half of all sulfur gases that volcanoes release into the upper atmosphere.

Read more at:

<https://scitechdaily.com/new-cambridge-study-current-climate-projections-significantly-underestimate-impact-of-volcanic-eruptions/>



ARTS

Credit: Unsplash

Abu Dhabi Art 2023 to be held for five days from November 22.

(June 19, 2023)

Abu Dhabi Art will be returning to Manarat Al Saadiyat between November 22 and 26. Galleries have already submitted their proposals for this year's run of the annual art fair – including both returning institutions and those participating for the first time. This is the 15th iteration of the event, which features several sectors – including Modern & Contemporary, which is open to galleries that have been running for a minimum of seven years and are dedicated to artworks produced since the late 19th century.

Read more at:

<https://www.thenationalnews.com/arts-culture/2023/06/19/abu-dhabi-art-2023-to-be-held-for-five-days-from-november-22/>

New Mexico Judge Grants and Dismisses Claims Made By Meow Wolf in Ongoing Copyright Fight

(June 20, 2023)



Credit: Getty Images

A federal judge in New Mexico has granted and dismissed some of the claims made by the art company Meow Wolf in response to a copyright infringement lawsuit from artist Lauren Oliver. The case centers around Oliver's 13-foot tall, furry, horned sculpture Space Owl. The sculpture was first created in 2006, but the artist made a new version of it for a climate-change themed environment called Ice Station Quellette (ISQ) in Meow Wolf's House of Eternal Return (HoER).

Read more at:

<https://www.artnews.com/art-news/news/new-mexico-judge-partial-summary-judgement-meow-wolf-copyright-lauren-oliver-1234672075/>

British Museum Removes Writer's Translations of Chinese Poetry After Being Accused of Copyright Infringement.

(June 20, 2023)

The British Museum has removed translations of poetry by a Chinese revolutionary from one of its exhibitions after a translator alleged that her work was used without permission or payment. Vancouver-based editor, poet, and translator Yilin Wang said she did not receive any credit or reimbursement for their translations when they appeared in "China's Hidden Century," which opened May 18 and includes translations of poetry by Qiu Jin, a feminist and revolutionary the New York Times dubbed "China's Joan of Arc."

Read more at:

<https://www.artnews.com/art-news/news/british-museum-removes-translations-chinese-poetry-exhibition-1234672131/>

4,000-Year-Old Stonehenge-like Sanctuary Unearthed in the Netherlands.

(June 20, 2023)

Archaeologists have uncovered a mysterious sanctuary in the central Netherlands made of burial mounds and ancient offerings of human and animal bones that has striking similarities to Stonehenge. The 4,000-year-old site was discovered in the town of Tiel and, like prehistoric stone circle Stonehenge, tracked the position of the sun on the solstices. "The largest mound served as a sun calendar, similar to the famous stones of Stonehenge in England," the municipality of Tiel said in a statement.



Courtesy Municipality of Tiel

Read more at:

<https://www.artnews.com/art-news/news/stonehenge-like-sanctuary-unearthed-in-the-netherlands-1234672391/>

TECHNOLOGY



Credit: Unsplash

Super-Resolution DNA Analysis: Multi-Scanning Individual Molecules for Extreme Precision.

(June 20, 2023)

EPFL researchers led by Dr. Aleksandra Radenovic have advanced nanopore technology by integrating it with scanning ion conductance microscopy. The resultant technique, scanning ion conductance spectroscopy, offers unprecedented precision in controlling molecular transit speed, yielding a significant signal-to-noise ratio increase. This versatile method could greatly impact DNA analysis, proteomics, and clinical research.

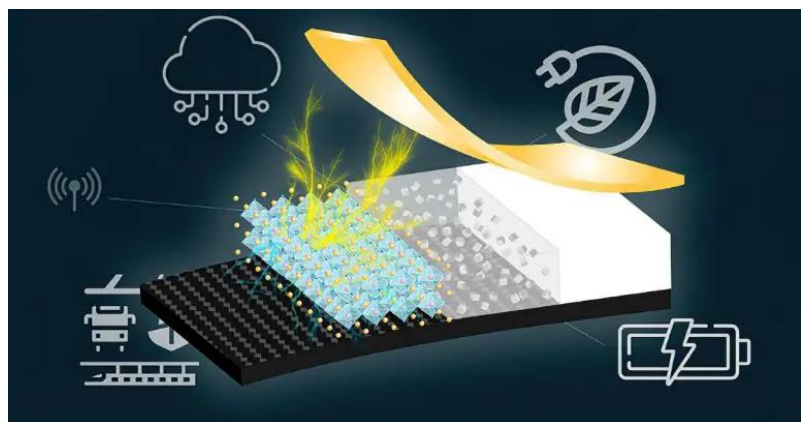
Read more at:

<https://scitechdaily.com/super-resolution-dna-analysis-multi-scanning-individual-molecules-for-extreme-precision/>

Powering the future: Innovative device harvests vibrational energy.

(June 21, 2023)

Researchers have developed a device that turns environmental vibrations into electricity using piezoelectric composites and carbon fiber-reinforced polymer. The device, named C-PVEH, is durable, efficient, and a promising solution for powering IoT devices, heralding advancements in energy-efficient technologies. An international research group has engineered a new energy-generating device by combining



Credit: Tohoku University

piezoelectric composites with carbon fiber-reinforced polymer (CFRP), a commonly used material that is both light and strong. The new device transforms vibrations from the surrounding environment into electricity, providing an efficient and reliable means for self-powered sensors.

Read more at:

<https://scitechdaily.com/powering-the-future-innovative-device-harvests-vibrational-energy/>

The future of medical diagnostics: All-purpose biosensor chip with 10,000-fold increase in detection range.

(June 22, 2023)

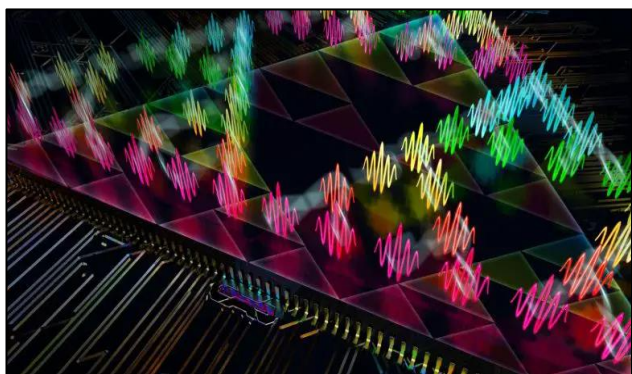
UC Santa Cruz scientists have significantly improved chip-based biosensors, expanding their concentration range detection by over 10,000 times. These advancements enable a single device to perform multiple medical tests simultaneously on different biomolecules, even at vastly different concentrations. The team leveraged machine learning for high accuracy particle recognition, making these devices suitable for real-time data analysis in point-of-care scenarios.

Read more at:

<https://scitechdaily.com/the-future-of-medical-diagnostics-all-purpose-biosensor-chip-with-10000-fold-increase-in-detection-range/>

Harnessing the Speed of Light: Artificial “Life” Unlocks Photonic Computing Power.

(June 22, 2023)



Credit: Nicolle R. Fuller, Sayo Studio

New research by Caltech’s Alireza Marandi, assistant professor of electrical engineering and applied physics, uses optical hardware to realize cellular automata, a type of computer model consisting of a “world” (a gridded area) containing “cells” (each square of the grid) that can live, die, reproduce, and evolve into multicellular creatures with their own unique behaviors.

Read more at:

<https://scitechdaily.com/harnessing-the-speed-of-light-artificial-life-unlocks-photonic-computing-power/>

SPORTS



Credit: Pxhere

Indian sports news wrap, June 18: Aditi remains in hunt for another top-10 finish.

(June 18, 2022)

Aditi Ashok struggled to find rhythm at the LPGA Classic in Belmont but still did well enough to bring home an even par 72 and stay on course for another positive result. Aditi, who has had a good run so far this year, more so in the last three months, hit fewer greens in regulation, and that meant fewer birdie opportunities on the tree-lined course.



Credit: David Berding/Getty
Images/AFP

Read more at:

<https://sportstar.thehindu.com/other-sports/indian-sports-news-wrap-june-18-updates-score-highlights/article66982400.ece>

Ayhika, Sathyian-Manika pair register easy wins in WTT Contender.

(June 22, 2022)

Indian paddler Ayhika Mukherjee sailed into the women's singles pre-quarterfinals even as her compatriots Diya Chitale and Sreeja Akula bit the dust in the opening round of the WTT Contender in Tunis on Thursday. Ayhika defeated Xiaotong Wang of China 3-0 (11-8, 11-3, 11-2) in her tournament opener to move into the second round, where she will meet the winner of the match between Germany's Sabine Winter and Miyu Nagasaki of Japan.

Read more at:

<https://sportstar.thehindu.com/other-sports/indian-sports-news-wrap-june-22-updates-score-highlights/article66997404.ece>

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