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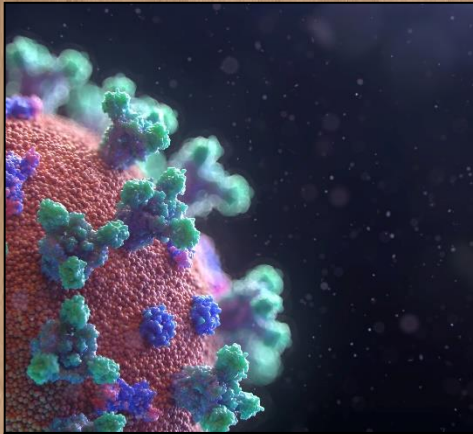


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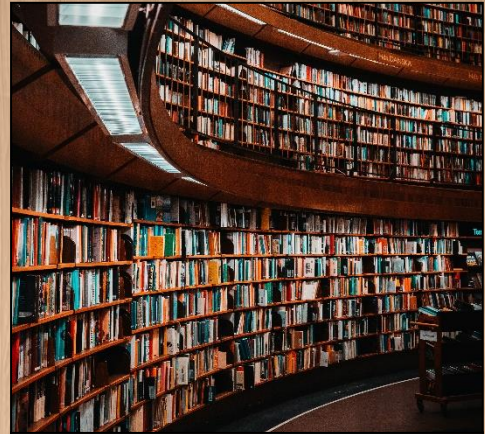
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COORDINATOR: SHEHITHA SALIM (ASSISTANT PROFESSOR, DLISc)

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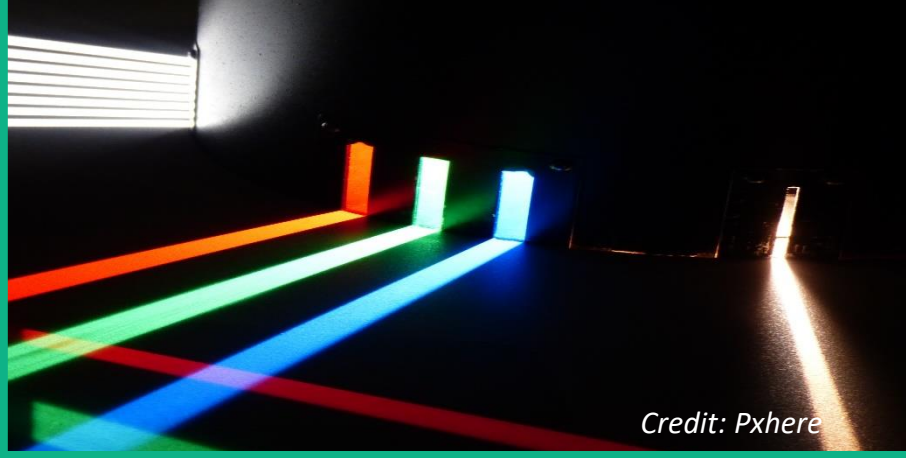
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SCIENCE



'Naturally insulating' material emits pulses of superfluorescent light at room temperature.

(August 29, 2022)

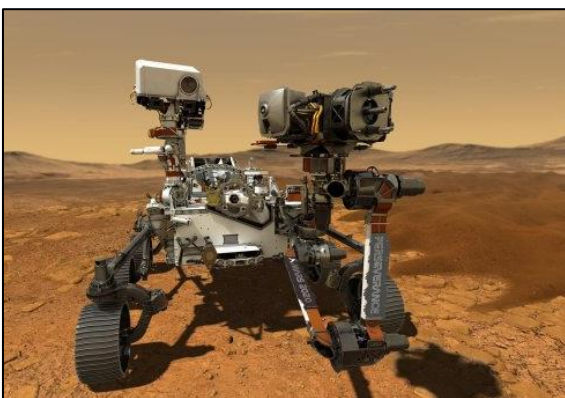
Researchers looking to synthesize a brighter and more stable nanoparticle for optical applications found that their creation instead exhibited a more surprising property: bursts of superfluorescence that occurred at both room temperature and regular intervals. The work could lead to the development of faster microchips, neurosensors, or materials for use in quantum computing applications, as well as a number of biological studies.

Read more at:

<https://www.sciencedaily.com/releases/2022/08/220829143921.htm>

MOXIE experiment reliably produces oxygen on Mars.

(August 31, 2022)



Credit: NASA/JPL-Caltech

The MIT-led Mars Oxygen In-Situ Resource Utilization Experiment, or MOXIE, has been successfully making oxygen from the Red Planet's carbon-dioxide-rich atmosphere since February 2021, when it touched down on the Martian surface as part of NASA's Perseverance rover mission. In a study published in the journal Science Advances, researchers report that, by the end of 2021, MOXIE was able to produce oxygen on seven experimental runs, in a variety of atmospheric conditions, including during the day and night, and through different Martian seasons. In each run, the instrument reached its target of producing six grams of oxygen per hour -- about the rate of a modest tree on Earth.

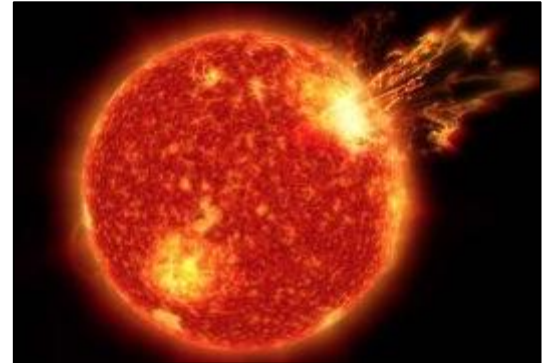
Read more at:

<https://www.sciencedaily.com/releases/2022/08/220831152733.htm>

“Solar clock” can predict dangerous solar flares years in advance.

(September 3, 2022)

A recent study conducted by Leamon demonstrates that many significant changes during the solar cycle can be accurately described and predicted using a “solar clock” based on the magnetic field of the sun rather than the presence or absence of sunspots. The new approach improves the classic sunspot technique by predicting surges in dangerous solar flares or shifting weather patterns years in advance. The new research, which was published in *Frontiers in Astronomy and Space Sciences*, specifically demonstrates that the solar cycle functions as a separate sequence of events.



Credit: NASA's Goddard Space Flight Center/Genna Duberstein

Read more at:

<https://scitechdaily.com/solar-clock-can-predict-dangerous-solar-flares-years-in-advance/>

Fuel leak ruins NASA’s 2nd shot at launching moon rocket.

(September 4, 2022)



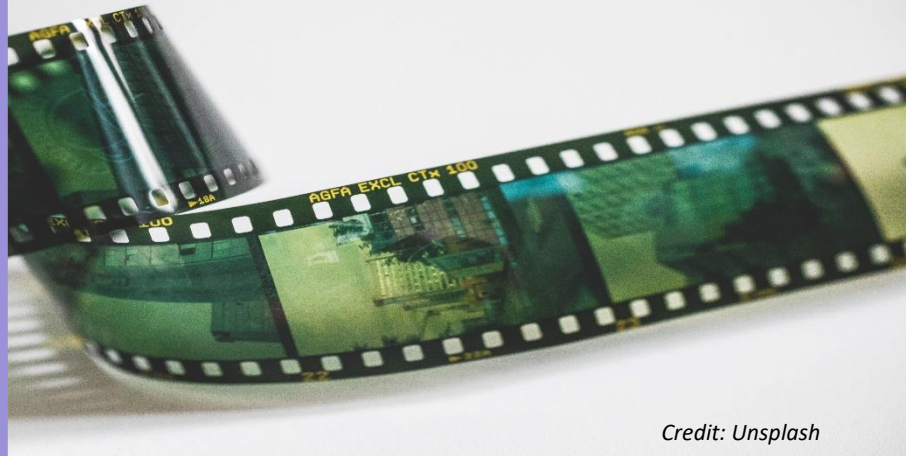
Credit: Reuters

NASA’s new moon rocket sprang another dangerous fuel leak Saturday, forcing launch controllers to call off their second attempt to send a crew capsule into lunar orbit with test dummies. The first attempt earlier in the week was also marred by escaping hydrogen, but those leaks were elsewhere on the 322-foot (98-meter) rocket, the most powerful ever built by NASA. NASA Administrator Bill Nelson said repair work could bump the launch into October.

Read more at:

<https://indianexpress.com/article/technology/science/fuel-leak-ruins-nasas-2nd-shot-at-launching-moon-rocket-8129505/>

ARTS



Credit: Unsplash

Sugar disrupts microbiome, eliminates protection against obesity and diabetes.

(August 29, 2022)



Representative Image

A study of mice found that dietary sugar alters the gut microbiome, setting off a chain of events that leads to metabolic disease, pre-diabetes, and weight gain. The findings, published today in *Cell*, suggest that diet matters, but an optimal microbiome is equally important for the prevention of metabolic syndrome, diabetes, and obesity.

Read more at:

<https://www.sciencedaily.com/releases/2022/08/220829194721.htm>

People generate their own oxidation field and change the indoor air chemistry around them.

(September 1, 2022)

People typically spend 90 percent of their lives inside, at home, at work, or in transport. Within these enclosed spaces, occupants are exposed to a multitude of chemicals from various sources, including outdoor pollutants penetrating indoors, gaseous emissions from building materials and furnishings, and products of our own activities such as cooking and cleaning. In addition, we are ourselves potent mobile emission sources of chemicals that enter the indoor air from our breath and skin.

Read more at:

<https://www.sciencedaily.com/releases/2022/09/220901151703.htm>

TECHNOLOGY



Credit: Unsplash

Protein that could prevent chemical warfare attack created.

(September 1, 2022)

A team that includes Rutgers scientists has designed a synthetic protein that quickly detects molecules of a deadly nerve agent that has been classified by the United Nations as a weapon of mass destruction and could be used in a chemical warfare attack. This development could pave the way for a new generation of tailor-made biosensors and treatments that could be deployed against the chemical warfare agent, VX, scientists said.



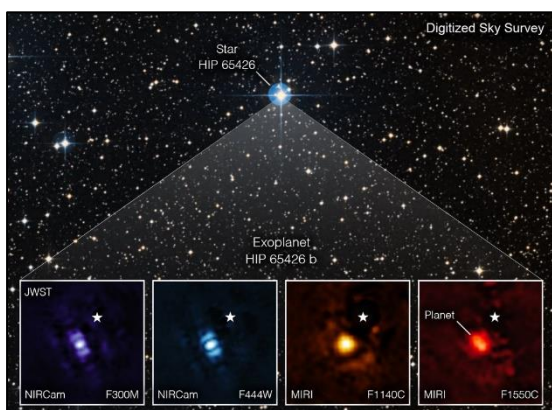
Representative Image

Read more at:

<https://www.sciencedaily.com/releases/2022/09/220901135845.htm>

NASA's Webb takes its first-ever direct image of distant world.

(September 1, 2022)



Credit: NASA/ESA/CSA, A Carter (UCSC), etc.

For the first time, astronomers have used NASA's James Webb Space Telescope to take a direct image of a planet outside our solar system. The exoplanet is a gas giant, meaning it has no rocky surface and could not be habitable. The image, as seen through four different light filters, shows how Webb's powerful infrared gaze can easily capture worlds beyond our solar system, pointing the way to future observations that will reveal more information than ever before about exoplanets.

Read more at:

<https://www.sciencedaily.com/releases/2022/09/220901200644.htm>

SPORTS



Credit: Pxhere

VAR technology to make debut in FIFA U-17 Women's World Cup. *(August 30, 2022)*



Credit: Reuters

The upcoming Under-17 Women's World Cup in India will see the Video Assistant Referee (VAR) technology making its debut in the age-group showpiece, world football governing body FIFA announced. The VAR technology supports the decision-making process of the referee in four game-changing situations: goals and offences leading up to a goal, penalty decisions and offences leading up to a penalty, direct red card incidents, and mistaken identity.

Read more at:

<https://indianexpress.com/article/sports/football-fifa-u17-world-cup/var-technology-to-make-debut-in-fifa-u-17-womens-world-cup-8121320/>

Hardik Pandya rises to best-ever fifth spot on ICC T20I all-rounder rankings.

(August 31, 2022)

India's flamboyant all-rounder Hardik Pandya has jumped eight places to a best-ever fifth position on the latest ICC T20I all-rounder rankings after his excellent outing against Pakistan in the Asia Cup. Hardik claimed 3/25 and made 33 not out from just 17 balls, showing how vital his impact will be in India's T20 World Cup campaign later in the year in Australia. There were no new entrants in the T20I batting top ten, though there was a push from Pakistan's Mohammad Rizwan, moving up to second (796) to join Babar Azam (810) in the top two.

Read more at:

<https://indianexpress.com/article/sports/cricket/hardik-rises-to-best-ever-fifth-spot-on-icc-t20i-all-rounder-rankings-8123342/>

Serena Williams wins again at US Open, beating No. 2 seed Kontaveit.

(September 1, 2022)

Serena Williams eliminated No. 2 seed Anett Kontaveit 7-6 (4), 2-6, 6-2 in the U.S. Open's second round Wednesday night to ensure that the 23-time Grand Slam champion will play at least one more singles match at what she's hinted will be the last tournament of her illustrious career. After pulling out a tight first set, then faltering a bit in the second, Williams headed to the locker room for a bit of a break before the third. Something had to give, someone had to blink. When they resumed, it was Williams who lifted her level and emerged as the better player.



Credit: AP Photo/Seth Wenig

Read more at:

<https://indianexpress.com/article/sports/tennis/serena-williams-wins-again-at-us-open-beating-no-2-seed-kontaveit-8124073/>

Barca newcomers lead 3-0 win at Sevilla.

(September 4, 2022)

Robert Lewandowski, Raphinha and Jules Koundé showed why Barcelona mortgaged part of its future for them by producing goals in a commanding 3-0 win at Sevilla in the Spanish league. Lewandowski made it five goals in four appearances since moving from Bayern Munich, ex-Leeds winger Raphinha scored his first for Barcelona, and Koundé provided two assists against his former club to secure a third straight win. Barcelona climbed into second place, two points behind Real Madrid, which ended Real Betis' perfect start to the league after beating Seville's other club 2-1 in Spain's capital.

Read more at:

<https://indianexpress.com/article/sports/football/barca-newcomers-lead-3-0-win-at-sevilla-8129740/>

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