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9 – 13 May 2022

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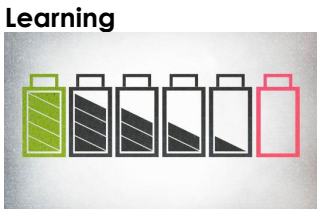
AI

Researchers Now Able To Predict Battery Lifetimes With Machine Learning

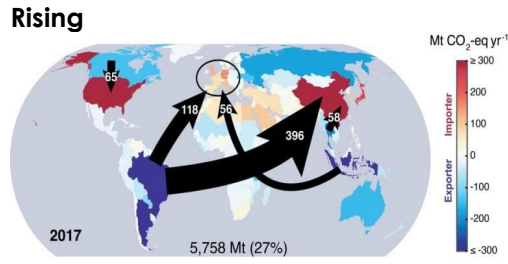


"By using experimental data gathered at Argonne from a set of 300 batteries representing six different battery chemistries, the scientists can accurately determine just how long different batteries will continue to cycle."

Source: Argonne National Laboratory (5 May 2022)

CARBON EMISSIONS

Emissions Tied To The International Trade Of Agricultural Goods Are Rising

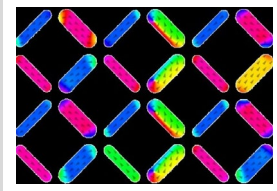


"Earth system scientists at the University of California, Irvine and other institutions have drawn the clearest line yet connecting consumers of agricultural produce in wealthier countries in Asia, Europe and North America with a growth in greenhouse gas emissions in less-developed nations, mostly in the Southern Hemisphere."

Source: UCI (6 May 2022)

COMPUTING

'Nanomagnetic' Computing Can Provide Low-Energy AI

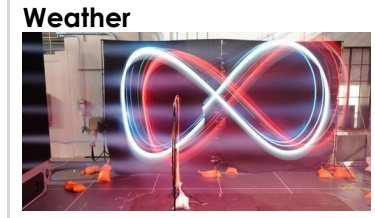


"Researchers have shown it is possible to perform artificial intelligence using tiny nanomagnets that interact like neurons in the brain."

Source: Imperial College London (5 May 2022)

DRONES

Rapid Adaptation of Deep Learning Teaches Drones to Survive Any Weather

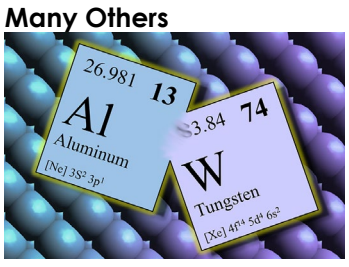


"To be truly useful, drones—that is, autonomous flying vehicles—will need to learn to navigate real-world weather and wind conditions."

Source: California Institute of Technology (5 May 2022)

MATERIALS

Energy Researchers Invent Chameleon Metal That Acts Like Many Others



"A team of energy researchers led by the University of Minnesota Twin Cities have invented a groundbreaking device that electronically converts one metal into behaving like another to use as a catalyst for speeding chemical reactions. The fabricated device, called a "catalytic condenser," is the first to demonstrate that alternative materials that are electronically modified to provide new properties can yield faster, more efficient chemical processing."

Source: UNIVERSITY OF MINNESOTA (9 May 2022)

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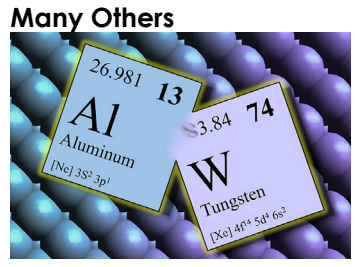

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Source: UNIVERSITY OF MINNESOTA (9 May 2022)

MEDTECH

Candy-Coated Pills Could Prevent Pharmaceutical Fraud

"The technique, which he calls CandyCode and uses tiny multicolored candy nonpareils or "hundreds and thousands" as a uniquely identifiable coating for pharmaceutical capsules and pills"

Source: Imperial College London (5 May 2022)

MEDICAL DEVICES

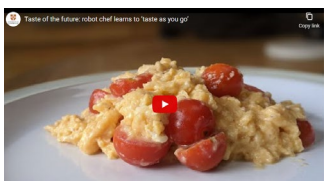
It's All In The Wrist: A Portable MRI System For Early Detection Of Sports Injuries

"Researchers at the University of Tsukuba develop a portable MRI system specifically for identifying wrist cartilage damage among athletes, providing a convenient means of early detection and treatment of injuries."

Source: University of Tsukuba (26 April 2022)

ROBOT

Taste Of The Future: Robot Chef Learns To 'Taste As You Go'

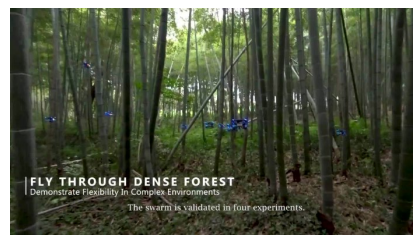


"Working in collaboration with domestic appliances manufacturer Beko, researchers from the University of Cambridge trained their robot chef to assess the saltiness of a dish at different stages of the chewing process, imitating a similar process in humans."

Source: University of Cambridge (4 May 2022)

ROBOTICS

Swarm Of Micro Flying Robots In The Wild

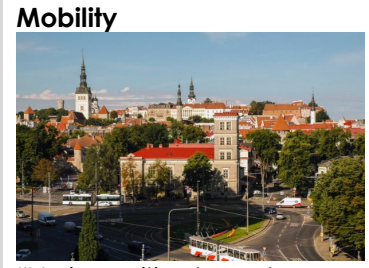


"Aerial robots are widely deployed, but highly cluttered environments such as dense forests remain inaccessible to drones and even more so to swarms of drones. In these scenarios, previously unknown surroundings and narrow corridors combined with requirements of swarm coordination can create challenges. To enable swarm navigation in the wild, we develop miniature but fully autonomous drones with a trajectory planner that can function in a timely and accurate manner based on limited information from onboard sensors."

Source: Science (4 May 2022)

TRANSPORT

Cities Are Experimenting With Free Public Transit To Promote Sustainable Mobility

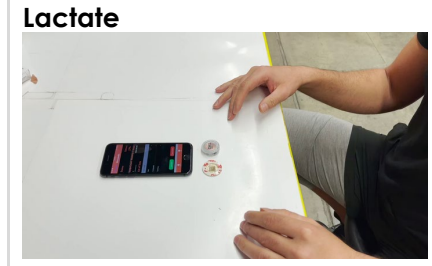


"Various cities have been experimenting with wavering fees for public transport in an effort to promote sustainable mobility, alleviate traffic congestion and decrease social inequality."

Source:archdaily (6 May 2022)

WEARABLES

Multi-tasking Wearable Continuously Monitors Glucose, Alcohol, And Lactate



"Engineers at the University of California San Diego have developed a prototype of such a wearable that can continuously monitor several health stats—glucose, alcohol, and lactate levels—simultaneously in real-time."

Source: Eurekalert! (9 May 2022)