

Weekly Discovery

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19 October – 23 October 2026



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Authoritative source for identifying a chemical substance and its related chemical structures, chemical names, regulatory information, and properties, including CAS Registry Numbers®, reaction schemes, step-by-step experimental procedures, detailed conditions, and product yields.

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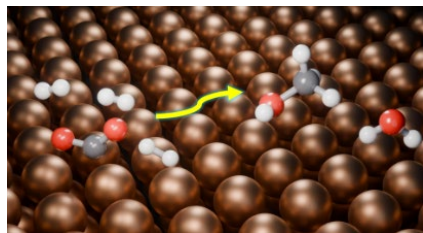
SCIENTIFIC AMERICAN

Provides authoritative insights into groundbreaking developments in science and technology, and highlights the emerging trends that will shape our world. The articles are written in clear and accessible prose by leading scientists, inventors and engineers from diverse fields to give readers a comprehensive understanding of the latest scientific discoveries and technological innovations. A diverse range of topics is covered, including energy and sustainability, evolution, health, space, psychology, life sciences, dark energy and computing. Full-text articles are available for the years 2006-2007, as well as for the last 5 years. [Access](#)

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AI • Sustainability • Catalysis

AI reveals a hidden chemical shortcut that could turn CO2 into fuel



Researchers screened thousands of reaction pathways with machine learning to uncover a potentially more efficient route for copper catalysts to convert carbon dioxide. The result offers new targets for experimental catalyst design rather than an immediately commercial conversion process.

Indian Institute of Science | 13 October 2026

AI • Ethics • Human–AI Interaction

Google Deepmind's New Resident Philosopher Tackles AI Ethics



An interview with philosopher Henry Shevlin examines why leading AI laboratories increasingly study questions about human–AI relationships, consciousness and model behavior from within development teams. It highlights unresolved issues in oversight and responsible design as AI products become more humanlike.

IEEE Spectrum | 13 October 2026

Architecture • Health Tech • Housing Architectures of Ageing in Place



A research-led publication surveys housing and community models that allow older adults to remain within integrated neighborhoods. International case studies, including Singapore, emphasize design evaluation, accessibility and social interaction.

ArchDaily | 15 October 2026

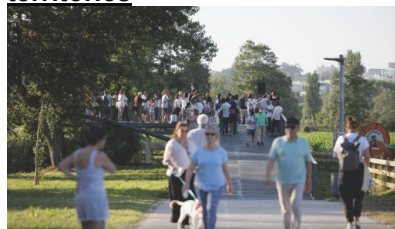
Architecture • Cities • Housing “Welcoming and inclusive” London housing wins RIBA Stirling Prize 2026



Lion Green Road provides 157 homes, including social rentals, in five blocks on a sloping former car park. Dual-aspect apartments and shared gardens show how compact urban housing can combine density, daylight and community space.

Dezeen | 15 October 2026

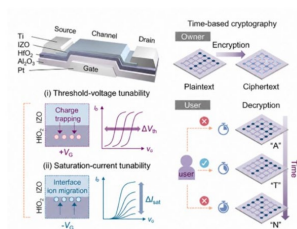
Cities • Sustainability • Landscape SHIFT 2026: Fernando de Mello Franco proposes viewing the landscape as an instrument for the socio-ecological recomposition of territories



The SHIFT 2026 programme examines landscape-led strategies for restoring connections among ecological systems, public space and urban communities. It highlights how territory-scale design can address environmental and social challenges together.

ArchDaily | 15 October 2026

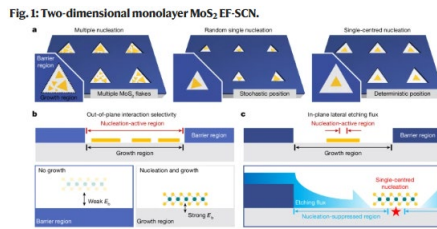
Cybersecurity • Semiconductors • Smart Devices KAIST develops transistor-based encryption that controls when information can be read



Researchers built a transistor-based security mechanism that adds a time-dependent condition to information access. This physical-hardware approach to encryption could help protect data in compact smart devices where conventional software controls alone are insufficient.

Korea Advanced Institute of Science and Technology (KAIST) | 13 October 2026

Engineering • Semiconductors • AI KAIST controls where 2D semiconductor crystals begin to grow, addressing a key challenge in stacking AI chips



A controlled nucleation method helps determine where extremely thin semiconductor crystals grow. Precise spatial control may support vertically integrated electronic components and more predictable fabrication of future stacked AI processors.

Korea Advanced Institute of Science and Technology (KAIST) | 13 October 2026

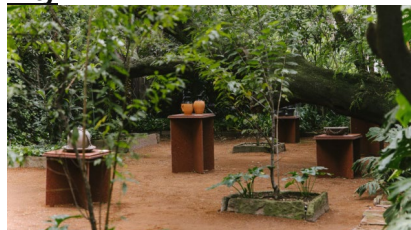
Health Tech • Optics • Imaging Stanford's new microscope reveals living cells like never before



A label-free microscopy technique reveals details of living cells at approximately 120-nanometer resolution without relying on fluorescent dyes. It may allow researchers to study delicate structures and dynamic behavior with less sample preparation and reduced disturbance.

Stanford University | 16 October 2026

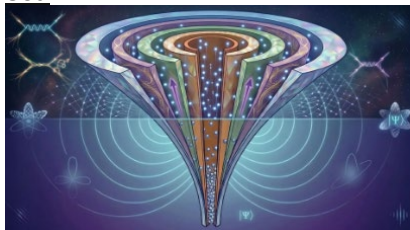
Materials • Sustainability • Product Design Recycled-plastic plinths hold furniture at “secret” Barragán house in Mexico City



Design Week Mexico used display plinths made from recycled industrial laminated packaging at Luis Barragán's Casa Ortega. The exhibition pairs material reuse with French–Mexican craft and design collaborations in a historic architectural setting.

Dezeen | 14 October 2026

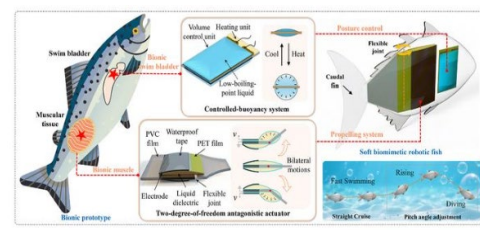
Quantum • Materials • Physics Physicists create a bizarre new quantum state called a fractional Fermi sea



A study of strongly interacting quantum systems describes an exotic fractional Fermi-sea state. The work adds insight into emergent quantum behavior and potential simulation platforms; practical device applications remain exploratory.

University of Innsbruck | 18 October 2026

Robotics • Sensors • Engineering Soft robotic fish combines high-speed swimming with 3D maneuverability



A soft robotic fish combines rapid forward movement with active buoyancy adjustment and three-dimensional turns. The research demonstrates how compliant structures and carefully tuned actuation can improve agility in underwater robotic platforms.

Chinese Academy of Sciences | 13 October 2026

Sustainability • Solar • Architecture Geometry that Generates Energy: The Solar Facade of Breidablikk Gården, Norway



Integrated photovoltaics form part of the facade's shading and protective envelope rather than being added afterward. The project illustrates how building geometry can combine architectural expression with electricity generation.

ArchDaily | 14 October 2026