

Date: 23 Apr 2025

FYI - Fusion News/Alerts

23 April - World Book and Copyright Day: *A celebration of the power of books*

<https://www.unesco.org/en/days/world-book-and-copyright>

Fusion Energy: The Long-Term Solution

<https://eepower.com/tech-insights/fusion-energy-the-long-term-solution>

How will ITER measure the temperature of components facing the plasma?

<https://fusionforenergy.europa.eu/news/iter-temperature-diagnostic-wide-angle-viewing-system/>

Are Small Nuclear Reactors the Answer to Modern Energy Needs?

<https://eepower.com/tech-insights/are-small-nuclear-reactors-the-answer-to-modern-energy-needs>

KiNET-X brings new understanding of energy and momentum transport in charged plasmas

<https://ww2.aip.org/scilights/kinet-x-brings-new-understanding-of-energy-and-momentum-transport-in-charged-plasmas>

Catalyzing nuclear fusion via nanoplasmonics?

<https://www.laserfocusworld.com/lasers-sources/article/55283233/catalyzing-nuclear-fusion-via-nanoplasmonics>

Fusion energy could be ‘decisive building block’ for Europe’s energy security

<https://thenextweb.com/news/fusion-energy-decisive-building-block-for-europes-energy-security>

Top-quark pairs at ATLAS could shed light on the early universe

<https://physicsworld.com/a/quark-pairs-at-atlas-could-shed-light-on-the-early-universe/>

Laser-plasma accelerator achieves 100 electron bunches per second

<https://phys.org/news/2025-04-laser-plasma-electron-bunches.html>

Intergalactic Collision Constrains Dark Electromagnetism

<https://physics.aps.org/articles/v18/s48>

Particle emission ratios offer new window into evolution of matter in the early universe

<https://phys.org/news/2025-04-particle-emission-ratios-window-evolution.html>

Is nuclear power the key to a low-carbon future?

<https://today.usc.edu/is-nuclear-power-the-key-to-a-low-carbon-future/>

Recent Peer-Reviewed Articles of Interest

Feasibility of D–D Nuclear Fusion Achieved by Chemical Methods: Quantum Chemical Analysis

<https://pubs.acs.org/doi/10.1021/acsomega.5c01651>

Laser-spectroscopy testbed for impurity monitoring in liquid metal-cooled fast reactors

<https://pubs.aip.org/aip/rsi/article/96/4/045108/3344871/Laser-spectroscopy-testbed-for-impurity-monitoring>

Robust monitoring of thermal and fast ions using collective Thomson scattering: Combining physics- and data-driven background estimation

<https://pubs.aip.org/aip/rsi/article/96/4/043513/3344553/Robust-monitoring-of-thermal-and-fast-ions-using>

Influence of effective interactions and nuclear densities on the dynamics of heavy-ion fusion

<https://journals.aps.org/prc/accepted/23079P65N951e50b18719220335ad04568e054bb4>

Empirical validation of size effects in sub-sized tensile specimens for nuclear structural materials

<https://www.nature.com/articles/s41598-025-98849-5>

[Of Interest]

Building Intelligent Machines Helps Us Learn How Our Brain Works

<https://www.scientificamerican.com/article/what-the-quest-to-build-a-truly-intelligent-machine-is-teaching-us/>

Exclusive: a Nature analysis signals the beginnings of a US science brain drain

<https://www.nature.com/articles/d41586-025-01216-7>