

Date: 30 Jul 2025

FYI - Fusion News/Alerts

F4E prepares Europe's supply chain to deliver fusion fuel sources

<https://fusionforenergy.europa.eu/news/pellet-injection-fusion-fuel-supply-chain/>

UKAEA Advances Fusion Manufacturing with Dual 3D Printing Systems

<https://3dprintingindustry.com/news/ukaea-advances-fusion-manufacturing-with-dual-3d-printing-systems-242277/>

Nuclear fusion research using neutrons from FRM II

<https://www.tum.de/en/news-and-events/all-news/press-releases/details/nuclear-fusion-research-using-neutrons-from-frm-ii>

TVA and Type One Energy Sign First Contracts for Fusion Power Plant Project

<https://www.publicpower.org/periodical/article/tva-and-type-one-energy-sign-first-contracts-fusion-power-plant-project>

Fusion startup has learned to make gold from mercury profitably and in large quantities

<https://itc.ua/en/news/fusion-startup-has-learned-to-make-gold-from-mercury-profitably-and-in-large-quantities/>

Marathon Fusion claims it can turn mercury into gold while creating clean energy

<https://phys.org/news/2025-07-marathon-fusion-mercury-gold-energy.html>

US Startup Claims It Can Make Gold Using Fusion Technology

<https://www.sciencealert.com/us-startup-claims-it-can-make-gold-using-fusion-technology>

The complex relationship between fusion fuel and lithium walls

<https://www.pppl.gov/news/2025/complex-relationship-between-fusion-fuel-and-lithium-walls>

Unusual Plasma Waves Above Jupiter's North Pole

<https://physics.aps.org/articles/v18/s87>

EU says it can't kick Russia out of flagship nuclear fusion project

<https://www.euractiv.com/section/eet/news/eu-says-it-cant-kick-russia-out-of-flagship-nuclear-fusion-project/>

Scientists Investigate Use of AI to Speed Analysis of Nuclear Materials

<https://www.pnnl.gov/news-media/scientists-investigate-use-ai-speed-analysis-nuclear-materials>

Artificial diamonds are forever: 70 years of synthesizing these iconic gems

<https://www.nature.com/articles/d41586-025-02133-5>

Making Small Free-Electron Lasers More Reliable

<https://physics.aps.org/articles/v18/s100>

Early universe's 'little red dots' may be black hole stars

<https://www.science.org/content/article/early-universe-s-little-red-dots-may-be-black-hole-stars>

Mysterious 'dark dwarfs' at the galactic center could unlock secrets of dark matter

<https://www.hawaii.edu/news/2025/07/23/dark-dwarfs-secrets-of-dark-matter/>

Century-Old Quantum Mystery Solved: Scientists Finally See Inside the Electron's "Tunnel"

<https://scitechdaily.com/century-old-quantum-mystery-solved-scientists-finally-see-inside-the-electrons-tunnel/>

Joint statement following the EU-Japan Summit 2025

https://ec.europa.eu/commission/presscorner/detail/en/statement_25_1890

Take the Big Mysteries in Physics Survey

<https://physics.aps.org/articles/v18/140>

Researchers achieve record hydrogen isotope separation via isotopologue-driven dynamics

<https://phys.org/news/2025-07-hydrogen-isotope-isotopologue-driven-dynamics.html>

Recent Peer-Reviewed Articles of Interest

Investigating the stochastic higher dimensional nonlinear Schrodinger equation to telecommunication engineering

<https://www.nature.com/articles/s41598-025-12747-4>

Topics in Nonlinear Science: Dedicated to David K. Campbell's 80th Birthday

<https://pubs.aip.org/collection/13400/Topics-in-Nonlinear-Science-Dedicated-to-David-K>

On the impact of nuclear fusion power plants deployment on selected critical materials consumption

<https://www.sciencedirect.com/science/article/pii/S2211467X25001555>

Steady-state plasma model of an iodine-fueled Hall thruster

<https://pubs.aip.org/aip/jap/article/138/4/043303/3355777/Steady-state-plasma-model-of-an-iodine-fueled-Hall>

Effect of plasma-surface heat transfer on enhancement of laser ablation in the presence of magnetic field

<https://pubs.aip.org/aip/jap/article/138/4/043305/3356072/Effect-of-plasma-surface-heat-transfer-on>

Progress and results of the first high voltage vacuum insulation tests in MITICA

<https://www.sciencedirect.com/science/article/pii/S0920379625005459>

FYI – LIBRARY NEWS/ALERTS

Vertical instability active controlled power supply of HL-3 tokamak

<https://www.sciencedirect.com/science/article/pii/S0920379625005071>

Statistical approaches to self-organization and uncertainty quantification in magnetic confinement fusion plasmas

<https://pubs.aip.org/aip/pop/article/32/7/070902/3356229/Statistical-approaches-to-self-organization-and>

Development of First Wall Tool Base for ITER Blanket Remote Handling System

<https://www.sciencedirect.com/science/article/pii/S0920379625005617>

[Of Interest]

K. Kasturirangan (1940–2025) – a Unique Legacy

<https://www.currentscience.ac.in/Volumes/129/02/0179.pdf>

How China's bold talent recruitment has shaped science

<https://www.nature.com/articles/d41586-025-02336-w>

Where Congress is Splitting from Trump on Science Funding

<https://www.aip.org/fyi/where-congress-is-splitting-from-trump-on-science-funding>

The AI Action Plan: Securing America's Future in the Age of Intelligence

<https://www.aei.org/technology-and-innovation/the-ai-action-plan-securing-americas-future-in-the-age-of-intelligence/>