FYI - FUSION NEWS/ALERTS

Date: 06 Nov 2025

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Fusion World - A flurry of government plans

https://www.iter.org/node/20687/flurry-government-plans

India: Like other ITER Members, is exploring concepts for a demonstration reactor, DEMO, that will test technologies for a fusion reactor. The country is considering a four-stage approach to establish power performance, tritium breeding, fuelling over long-pulse operations, and technology integration on the way to the pilot plant (see more details here). At a recent event at ITER (India Fusion Day), government and industry representatives cited participation in ITER as a key element in India's fusion research plans and the foundation for an Indian nuclear fusion industry.

[Reference Paper] A staged approach to Indian

DEMO [https://iopscience.iop.org/article/10.1088/1741-4326/ad0797]

[Latest ITER Newsline: https://www.iter.org/whatsnew/475]

Helical Fusion marks milestone in progress toward fusion power

https://www.ans.org/news/article-7500/helical-fusion-marks-milestone-in-progress-toward-fusion-power/

New insurance for nuclear fusion projects

https://www.neimagazine.com/news/new-insurance-for-nuclear-fusion-projects/

DIFFER and Fontys Hogeschool work together on divertor triage for fusion https://www.differ.nl/news/l.int-lectorate

UKAEA opens tritium fuel cycle facility training simulator

https://www.world-nuclear-news.org/articles/ukaea-opens-tritium-fuel-cycle-facility-training-simulator

Bipartisan commission report urges national fusion strategy

https://www.ans.org/news/2025-10-31/article-7509/bipartisan-commission-report-urges-national-fusion-strategy/

Why the Al Industry Is Betting on a Fusion Energy Breakthrough

https://time.com/7328213/nuclear-fusion-energy-ai/

Why Al is becoming a catalyst for nuclear fusion breakthroughs

https://energy-oil-gas.com/news/why-ai-is-becoming-a-catalyst-for-nuclear-fusion-breakthroughs/

DOE Releases Fusion Energy Roadmap For Commercialization

https://www.forbes.com/sites/noelfletcher/2025/10/29/doe-releases-fusion-energy-roadmap-for-commercialization/

UK's fusion energy reactor achieves multiple world-firsts in latest experiments https://www.yourweather.co.uk/news/science/uk-s-fusion-energy-reactor-achieves-multiple-world-firsts-in-latest-experiments.html

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Scientists recreate cosmic "fireballs" to probe mystery of missing gamma rays https://www.eurekalert.org/news-releases/1104218

Texas Tech Researchers Achieve Breakthrough in Nuclear Fusion Detection Technology

https://www.depts.ttu.edu/coe/wcoenews/posts/2025/11/ttu-ece-nuclear-fusion-breakthrough.php

Plasma strategy boosts antibacterial efficacy of silica-based materials https://phys.org/news/2025-11-plasma-strategy-boosts-antibacterial-efficacy.html

Russell Kulsrud, one of the last survivors of Project Matterhorn, dies at 97 https://www.princeton.edu/news/2025/10/24/russell-kulsrud-one-last-survivors-project-matterhorn-dies-97

Attosecond plasma lens

https://www.eurekalert.org/news-releases/1104686

UChicago students explore the frontiers of physics and climate modeling https://news.uchicago.edu/story/uchicago-students-explore-frontiers-physics-and-climate-modeling

Japan looks to support U.S. nuclear projects

https://www.ans.org/news/article-7512/japan-looks-to-support-us-nuclear-projects/

Chinese molten salt reactor achieves conversion of thorium-uranium fuel https://www.world-nuclear-news.org/articles/chinese-msr-achieves-conversion-of-thorium-uranium-fuel

From renaissance to reality: Infrastructure for a global nuclear fuel cycle https://www.ans.org/news/article-7475/from-renaissance-to-reality-infrastructure-for-a-global-nuclear-fuel-cycle/

First precise altitude distribution observation of blue aurora using hyperspectral camera

https://www.eurekalert.org/news-releases/1104113

Intuitive Machines advances compact in-space nuclear power

https://www.neimagazine.com/news/intuitive-machines-advances-compact-in-space-nuclear-power/

KAERI and **Mizzou** expand nuclear innovation alliance

https://www.neimagazine.com/news/kaeri-and-mizzou-expand-nuclear-innovation-alliance/

Recent Peer-Reviewed Articles of Interest

Early stages of self-healing at tungsten grain boundaries from ab initio machine learning simulations

https://www.nature.com/articles/s43246-025-00945-6

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[Of Interest]

Energy Sector Teaching Al How to Grow Up https://www.powermag.com/blog/energy-sector-teaching-ai-how-to-grow-up/