#### FYI - LIBRARY NEWS/ALERTS

Date: 15 May 2025

#### **FYI - Fusion News/Alerts**

#### Magnet cold test facility - On the fast track to operation

https://www.iter.org/node/20687/fast-track-operation

[Latest ITER Newsline: https://www.iter.org/whatsnew/457]

#### F4E and VTT advance remote handling solutions for ITER

https://fusionforenergy.europa.eu/news/vtt-iter-divertor-remote-handling/

#### **Nuclear Fusion journal recognizes LLNL paper**

https://www.llnl.gov/article/52871/nuclear-fusion-journal-recognizes-llnl-paper

Microsoft Fusion Summit explores how Al can accelerate fusion research

https://www.microsoft.com/en-us/research/blog/microsoft-fusion-summit-explores-how-ai-can-accelerate-fusion-research/

Plasma physics sets upper limit on the strength of 'dark electromagnetism'

https://physicsworld.com/a/plasma-physics-sets-upper-limit-on-the-strength-of-dark-electromagnetism/

#### **Fusion Energy Week begins today**

https://www.ans.org/news/article-7002/fusion-energy-week-begins-today/

University of Texas-led team solves a big problem for fusion energy https://www.eurekalert.org/news-releases/1082718

In an increasingly energy-hungry world, nuclear power is enticing.

https://engineering.wisc.edu/news/in-an-increasingly-energy-hungry-world-nuclear-power-is-enticing/

### General Fusion lays off staff due to 'unexpected and urgent financing constraints'

https://physicsworld.com/a/general-fusion-lays-off-staff-due-to-unexpected-and-urgent-financing-constraints/

#### Sean Gopalakrishnan receives top honor for plasma research

https://www.colorado.edu/physics/2025/04/30/sean-gopalakrishnan-receives-top-honor-plasma-research

Recent advances in photoneutron detection: High-precision measurement of photoneutron cross section data using the LCS source

https://www.eurekalert.org/news-releases/1083509

Europe blackouts turn spotlight on power systems - and more top energy stories

https://www.weforum.org/stories/2025/05/blackouts-resilience-carbon-capture-top-energy-stories/

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### It is rocket science: Clemson physics graduate aims high with atmospheric research

https://news.clemson.edu/it-is-rocket-science-clemson-physics-graduate-aims-high-with-atmospheric-research/

# Scientists Crack 70-Year Fusion Puzzle, Paving Way for Clean Energy <a href="https://scitechdaily.com/scientists-crack-70-year-fusion-puzzle-paving-way-for-clean-energy/">https://scitechdaily.com/scientists-crack-70-year-fusion-puzzle-paving-way-for-clean-energy/</a>

### U.S. Naval Research Lab's NIKE laser refocused from NIF to nuclear deterrence...

https://optics.org/news/16/5/10

#### This is what an aurora looks like on Mars

https://physicsworld.com/a/this-is-what-an-aurora-looks-like-on-mars/

### Good Practices in the Operation and Maintenance of Low Energy Electrostatic Accelerators

https://www.iaea.org/publications/15471/good-practices-in-the-operation-and-maintenance-of-low-energy-electrostatic-accelerators

### **Coated Particle Fuels for High Temperature Gas Cooled Small Modular Reactors**

https://www.iaea.org/publications/15833/coated-particle-fuels-for-high-temperature-gas-cooled-small-modular-reactors

#### Recent Peer-Reviewed Articles of Interest

# Advanced Simulation of ITER Core X-ray Crystal Spectroscopy <a href="https://pubs.aip.org/aip/rsi/article/96/5/053503/3346465/Advanced-Simulation-of-ITER-Core-X-ray-Crystal">https://pubs.aip.org/aip/rsi/article/96/5/053503/3346465/Advanced-Simulation-of-ITER-Core-X-ray-Crystal</a>

### Oxidation behaviour of EUROFER-97 under simulated water-cooled lithium lead breeder blanket conditions

https://www.nature.com/articles/s41529-025-00600-y

### Average magnetic drift models for ion temperature gradient-driven instability in tokamaks

https://pubs.aip.org/aip/pop/article/32/5/052104/3346796/Average-magnetic-drift-models-for-ion-temperature

### Operation and remote collaboration tools in view of the ITER neutral beam test facility experimental campaigns

https://www.sciencedirect.com/science/article/pii/S0920379625002273

## Electromagnetic instability and turbulence in plasmas with positive and negative triangularity

https://pubs.aip.org/aip/pop/article/32/5/052302/3346887/Electromagnetic-instability-and-turbulence-in

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## Asymptotic self-similar spherical expansion and its application to the diagnosing of compressed plasma

https://pubs.aip.org/aip/pop/article/32/5/052704/3346886/Asymptotic-self-similar-spherical-expansion-and

Development of a high charge 10 GeV laser electron accelerator <a href="https://pubs.aip.org/aip/pop/article/32/5/053102/3346446/Development-of-a-high-charge-10-GeV-laser-electron">https://pubs.aip.org/aip/pop/article/32/5/053102/3346446/Development-of-a-high-charge-10-GeV-laser-electron</a>

## Spatially and temporally resolved plasma parameter estimations of laser heated MagLIF relevant gas pipes at NIF

https://pubs.aip.org/aip/pop/article/32/5/052705/3346888/Spatially-and-temporally-resolved-plasma-parameter

# Thermal conductivity of SiO2 grown by plasma enhanced chemical vapor deposition

https://pubs.aip.org/aip/jap/article/137/17/175109/3345913/Thermal-conductivity-of-SiO2-grown-by-plasma

#### [Of Interest]

'Chatty' artificial intelligence could improve student enthusiasm for physics and maths, finds study

https://physicsworld.com/a/chatty-artificial-intelligence-could-improve-student-enthusiasm-for-physics-and-maths-finds-study/