## **FYI - LIBRARY NEWS/ALERTS**

Date: 30 May 2025

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

## Fusion energy surges in Great Lakes region

https://www.ans.org/news/2025-05-28/article-7071/fusion-energy-surges-in-great-lakes-region/

Nuclear: Fusion energy, the first magnet for the Italian DTT project ready <a href="https://www.media.enea.it/en/press-releases-and-news/years-archive/year-2025/nuclear-fusion-energy-the-first-magnet-for-the-italian-dtt-project-ready.html">https://www.media.enea.it/en/press-releases-and-news/years-archive/year-2025/nuclear-fusion-energy-the-first-magnet-for-the-italian-dtt-project-ready.html</a>

World premiere in fusion research: high-energy particles generated by radio waves in Wendelstein 7-X

https://www.fz-juelich.de/en/news/archive/announcements/2025/world-premiere-in-fusion-research-high-energy-particles-generated-by-radio-waves-in-wendelstein-7-x

Liquid carbon created for the first time, offering breakthrough for nuclear fusion reactors

https://eandt.theiet.org/2025/05/22/liquid-carbon-created-first-time-offering-breakthrough-nuclear-fusion-reactors

Formal design review completed for Infinity Two fusion power plant <a href="https://www.power-technology.com/news/type-one-energy-design-review-infinity-two/">https://www.power-technology.com/news/type-one-energy-design-review-infinity-two/</a>

Breaking through the noise: WSComm's revolution in spectrum sharing <a href="https://inl.gov/feature-story/breaking-through-the-noise-wscomms-revolution-in-spectrum-sharing/">https://inl.gov/feature-story/breaking-through-the-noise-wscomms-revolution-in-spectrum-sharing/</a>

Researchers measure the structure of liquid carbon – an unprecedented achievement in fusion energy research

https://www.uv.es/uvweb/uv-news/en/news/researchers-measure-structure-liquid-carbon-an-unprecedented-achievement-fusion-energy-research-1285973304159/Novetat.html?id=1286435705972&plantilla=UV\_Noticies/Page/TPG\_DetaillNews

lon-beam plasma interaction in ion fast ignition nuclear fusion scheme: A systematic study of the hot-spot properties and gains

https://journals.aps.org/pre/abstract/10.1103/PhysRevE.111.055206

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

https://journals.aps.org/prc/abstract/10.1103/PhysRevC.111.054621

How Magnetic Reconnection Jolts Electrons https://physics.aps.org/articles/v18/108

Strong Nuclear Force Is Not So Weak at Electroweak Temperatures <a href="https://physics.aps.org/articles/v18/s68">https://physics.aps.org/articles/v18/s68</a>

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IAEA Hosts World's First Major Gathering of Nuclear Community Leaders <a href="https://www.iaea.org/newscenter/news/iaea-hosts-worlds-first-major-gathering-of-nuclear-community-leaders">https://www.iaea.org/newscenter/news/iaea-hosts-worlds-first-major-gathering-of-nuclear-community-leaders</a>

Ballistic electrons chart a new course for next-gen terahertz devices <a href="https://phys.org/news/2025-05-ballistic-electrons-gen-terahertz-devices.html">https://phys.org/news/2025-05-ballistic-electrons-gen-terahertz-devices.html</a>

Recent Peer-Reviewed Articles of Interest

Divertor shaping with neutral baffling as a solution to the tokamak power exhaust challenge

https://www.nature.com/articles/s42005-025-02121-1

The design progress of neutral beam duct liner remote handling tool in ITER blanket remote handling system

https://www.sciencedirect.com/science/article/pii/S0920379625004132

Melting of tantalum under high pressure: in situ x-ray diffraction and ab initio molecular dynamic simulations

https://pubs.aip.org/aip/jap/article/137/20/205905/3347515/Melting-of-tantalum-under-high-pressure-in-situ-x

A new single flux rope experiment for studying the dynamics of a magnetized plasma jet

https://pubs.aip.org/aip/rsi/article/96/5/053505/3347493/A-new-single-flux-rope-experiment-for-studying-the

Direct-drive fusion experiments gain insights from machine learning-driven 3D reconstructions

https://www.aip.org/scilights/direct-drive-fusion-experiments-gain-insights-from-machine-learning-driven-3d-reconstructions

Thickness reduction of hydraulic connectors in ITER blanket shield block based on feasibility verification through mock-up testing

https://www.sciencedirect.com/science/article/pii/S0920379625004090

Impact plasma amplification of the ancient lunar dynamo https://www.science.org/doi/full/10.1126/sciadv.adr7401

[Of Interest]

No laughing matter: a comic book about the climate crisis <a href="https://physicsworld.com/a/no-laughing-matter-a-comic-book-about-the-climate-crisis/">https://physicsworld.com/a/no-laughing-matter-a-comic-book-about-the-climate-crisis/</a>

Rethinking science and mathematics pedagogy in Indian higher education <a href="https://www.currentscience.ac.in/Volumes/128/09/0874.pdf">https://www.currentscience.ac.in/Volumes/128/09/0874.pdf</a>