

FYI - Fusion News/Alerts

Fusion Energy in 2025: Six Global Trends to Watch

<https://www.iaea.org/newscenter/news/fusion-energy-in-2025-six-global-trends-to-watch>

US ships first electron cyclotron transmission line components

<https://www.iter.org/node/20687/us-ships-first-electron-cyclotron-transmission-line-components>

[Latest ITER Newline: <https://www.iter.org/whatsnew/474>]

DOE details plans for fusion in first road map

<https://www.eenews.net/articles/doe-details-plans-for-fusion-in-first-road-map/>

[*Download the Blueprint*] <https://www.energy.gov/sites/default/files/2025-10/fusion-s%26t-roadmap-101625.pdf>

World's largest superconducting fusion system will use American technology to measure the plasma within

<https://www.pppl.gov/news/2025/world%E2%80%99s-largest-superconducting-fusion-system-will-use-american-technology-measure-plasma>

Advanced control strategies for divertor power sharing and core density regulation in fusion energy devices

<https://www.differ.nl/news/innovation-news-network-advanced%20control%20strategies>

Japan fusion energy start-up achieves a key milestone toward commercial reactor

<https://www.reuters.com/sustainability/climate-energy/japan-fusion-energy-start-up-achieves-key-milestone-toward-commercial-reactor-2025-10-27/>

Commonwealth Fusion Systems partners with Google DeepMind

<https://www.ans.org/news/article-7484/commonwealth-fusion-systems-partners-with-google-deepmind/>

Why scientists are attempting nuclear fusion

<https://theweek.com/science/why-scientists-are-attempting-nuclear-fusion>

Urea from the plasma fan

<https://www.nature.com/articles/s41929-025-01441-3>

Permitting of US fusion power plant progresses

<https://world-nuclear-news.org/articles/permitting-of-us-fusion-power-plant-progresses>

Fusion Energy Group Hits Construction Milestone at Massachusetts Campus

<https://www.powermag.com/fusion-energy-group-hits-construction-milestone-at-massachusetts-campus/>

Multi-scale turbulence observations reveal new plasma confinement performance mechanism

<https://phys.org/news/2025-10-multi-scale-turbulence-reveal-plasma.html>

Stephen C. Jardin Wins the 2025 Ronald C. Davidson Award for Plasma Physics for Innovative Research in Magnetic Fusion Energy

<https://publishing.aip.org/about/news/stephen-c-jardin-wins-the-2025-ronald-c-davidson-award-for-plasma-physics-for-innovative-research-in-magnetic-fusion-energy/>

With a new molecule-based method, physicists peer inside an atom's nucleus

<https://news.mit.edu/2025/new-molecule-based-method-physicists-peer-inside-atoms-nucleus-1023>

Japan gets new U for enrichment as global power and fuel plans grow

<https://www.ans.org/news/2025-10-27/article-7496/japan-gets-new-u-for-enrichment-as-global-power-and-fuel-plans-grow/>

Global experts chart the future of nuclear power at U-M symposium

<https://news.engin.umich.edu/2025/10/global-experts-chart-the-future-of-nuclear-power-at-u-m-symposium/>

Recent Peer-Reviewed Articles of Interest

Ionization enhancement in radio-frequency plasma thrusters with applied static magnetic fields

<https://www.nature.com/articles/s41598-025-21566-6>

Gradient-based calibration of the anomalous electron scattering frequency in a Hall effect thruster simulation

<https://pubs.aip.org/aip/jap/article/138/16/163302/3368976/Gradient-based-calibration-of-the-anomalous>

An alternative derivation of parallel viscous coefficients in the banana regime for finite aspect ratio tokamaks

<https://pubs.aip.org/aip/pop/article/32/10/104503/3369190/An-alternative-derivation-of-parallel-viscous>

[Of Interest]

AI discovers learning algorithm that outperforms those designed by humans

<https://www.nature.com/articles/d41586-025-03398-6>

AMD & The US Energy Department: Building AI Supercomputers

<https://aimagazine.com/news/amd-the-us-energy-department-building-ai-supercomputers>