

Date: 16 Apr 2025

FYI - Fusion News/Alerts

Sector module insertion - A “record performance” brings assembly back on track

<https://www.iter.org/node/20687/record-performance-brings-assembly-back-track>
[Latest ITER Newsline: <https://www.iter.org/whatsnew/455>]

Fusion energy: Pathway to abundant power

<https://www.nsf.gov/science-matters/fusion-energy-pathway-abundant-power>

European Commission publishes Fusion Expert Group opinion paper

<https://fusionforenergy.europa.eu/news/european-commission-publishes-fusion-expert-group-opinion-paper/>

Fusion Expert Group opinion paper <https://op.europa.eu/en/publication-detail/-/publication/51364c97-135b-11f0-b1a3-01aa75ed71a1/language-en>

New Research Project: Properties of Tungsten Ions in Fusion Plasmas

<https://www.iaea.org/newscenter/news/new-research-project-properties-of-tungsten-ions-in-fusion-plasmas>

Fusion Energy Needs Continued U.S. Leadership to Secure Our Energy Future

<https://www.scientificamerican.com/article/fusion-energy-needs-continued-u-s-leadership-to-secure-our-energy-future/>

F4E launches the 2025 Technology Transfer Demonstrator Call

<https://fusionforenergy.europa.eu/news/f4e-technology-demonstrator-proposal>

Compact Nuclear Fusion Reactor Is 'Very Likely to Work,' Studies Suggest

<https://energy.wisc.edu/news/compact-nuclear-fusion-reactor-very-likely-work-studies-suggest>

In focus: Europe's road to fusion energy

https://energy.ec.europa.eu/news/focus-europes-road-fusion-energy-2025-04-15_en

Pacific Fusion predicts “1,000-fold leap” in performance, net facility gain by 2030

<https://www.ans.org/news/2025-04-15/article-6938/pacific-fusion-predicts-1000fold-leap-in-performance-net-facility-gain-by-2030/>

UK government plugs \$26m into nuclear fusion investment fund

<https://www.powerengineeringint.com/world-regions/europe/uk-government-plugs-26m-into-nuclear-fusion-investment-fund/>

Good News for Fusion Energy Workforce Development in San Diego

<https://today.ucsd.edu/story/good-news-for-fusion-energy-workforce-development-in-san-diego>

For Fusion Energy Week, plasma physics hits the town

<https://www.aps.org/apsnews/2025/04/fusion-energy-week>

Fusion industry meets in London to discuss ‘one of the economic opportunities of the century’

<https://physicsworld.com/a/fusion-industry-meets-in-london-to-discuss-one-of-the-economic-opportunities-of-the-century/>

Nuclear Energy Is Having a Moment, Again

<https://news.utexas.edu/2025/04/11/nuclear-energy-is-having-a-moment-again/>

Laser plasma accelerator achieves enhanced electron beam quality for practical applications

<https://phys.org/news/2025-04-laser-plasma-electron-quality-applications.html>

Atmospheric Turbulence Triggered by Events 20,000 km Up

<https://physics.aps.org/articles/v18/81>

New insights into an enigmatic form of magnetic reconnection

<https://phys.org/news/2025-04-insights-enigmatic-magnetic-reconnection.amp>

Scientists discover how stellar-mass black holes emit powerful plasma jets

<https://phys.org/news/2025-04-scientists-stellar-mass-black-holes.html>

Impact of nucleon-nucleon collisions on heavy-ion fusion reactions: An investigation utilizing time-dependent Hartree-Fock theory with the relaxation-time approximation

<https://journals.aps.org/prc/abstract/10.1103/PhysRevC.111.044604>

Nuclear, AI, and Data Centers Take the Spotlight at ARPA-E Energy Summit 2025

<https://kleinmanenergy.upenn.edu/commentary/blog/nuclear-ai-and-data-centers-take-the-spotlight-at-arpa-e-energy-summit-2025/>

Quantum Physics Is on the Wrong Track, Says Breakthrough Prize Winner Gerard 't Hooft

<https://www.scientificamerican.com/article/breakthrough-prize-winner-gerard-t-hooft-says-quantum-mechanics-is-nonsense/>

Not Supernova Born: Warwick and ESA researchers discover unusual birthplace of magnetar neutron star

https://warwick.ac.uk/newsandevents/pressreleases/not_supernova_born

Photon collisions in dying stars could create neutrons for heavy elements

<https://physicsworld.com/a/photon-collisions-in-dying-stars-could-create-neutrons-for-heavy-elements/>

Physics student pushes boundaries in nuclear research as 2025 Los Alamos-Texas A&M Fellow

<https://www.eurekalert.org/news-releases/1080488>

Recent Peer-Reviewed Articles of Interest

Active energy compression of a laser-plasma electron beam

<https://www.nature.com/articles/s41586-025-08772-y>

Thermal structural analyses during cool down of the ITER toroidal field coil in the magnet cold test bench

<https://www.sciencedirect.com/science/article/pii/S0920379625002170>

Study of the Plasma Ion Screening Effect on the Level Delocalization, Radiation Properties and Electron Collision Ionization of Plasma-Immersed Hydrogen Atoms

<https://onlinelibrary.wiley.com/doi/10.1002/qua.70045>

Adsorption of silane radicals governing plasma silicon deposition with dilution gases

<https://pubs.aip.org/aip/pof/article/37/4/043607/3343002/Adsorption-of-silane-radicals-governing-plasma>

[Of Interest]

EPS – PPCF Sylvie Jacquemot Early Career Prize

<http://plasma.ciemat.es/eps/2025/04/10/eps-ppcf-sylvie-jacquemot-early-career-prize/>

Don't have a PhD? The quantum industry still wants you

<https://physicsworld.com/a/dont-have-a-phd-the-quantum-industry-still-wants-you/>