

Date: 26 Sep 2024

Divertor manufacturing - Japan qualifies outer vertical target

<https://www.iter.org/newsline/-/4075>

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

After Latest ITER Delay, Senators Quiz Fusion Experts over Commercial Reactor Timelines

<https://ww2.aip.org/fyi/after-latest-iter-delay-senators-quiz-fusion-experts-over-commercial-reactor-timelines>

Autonomous robot completes 35-day trial inspecting JET

<https://www.world-nuclear-news.org/articles/autonomous-robot-completes-35-day-trial-inspecting-jet>

Advances in hydrogen research: More efficient isotope separation in sight

<https://phys.org/news/2024-09-advances-hydrogen-efficient-isotope-sight.html>

The untold history behind fusion ignition

<https://ww2.aip.org/scilightsthe-untold-history-behind-fusion-ignition>

Producing 'green ammonia' using plasma will be the focus of a new Princeton-PPPL project

<https://www.pppl.gov/news/2024/producing-%E2%80%98green-ammonia%E2%80%99-using-plasma-will-be-focus-new-princeton-pppl-project>

Lan Gao wins a DOE \$2.75 million early career award to develop innovative diagnostic tools for future fusion energy devices

<https://www.pppl.gov/news/2024/lan-gao-wins-doe-275-million-early-career-award-develop-innovative-diagnostic-tools>

Exploring the future of fusion

<https://www.tue.nl/en/news-and-events/news-overview/24-09-2024-exploring-the-future-of-fusion>

Regulating fusion energy technology: Position paper

<https://www.cnsccsn.gc.ca/eng/acts-and-regulations/fusion/positionpaper/>

Researchers build AI model database to find new alloys for nuclear fusion facilities

<https://phys.org/news/2024-09-ai-database-alloys-nuclear-fusion.html>

Department of Energy Announces \$5.65 Million for Research on High Energy Density Plasmas

<https://www.energy.gov/science/articles/department-energy-announces-565-million-research-high-energy-density-plasmas>

New results from the CMS experiment put W boson mass mystery to rest

<https://phys.org/news/2024-09-results-cms-boson-mass-mystery.html>

New physics needed? Experts suggest possibility of updating fundamental physics concepts

<https://phys.org/news/2024-09-physics-experts-possibility-fundamental-concepts.html>

Simulation of asteroid deflection with a megajoule-class X-ray pulse

<https://www.nature.com/articles/s41567-024-02633-7>

Experts show routes to recycling carbon dioxide and coal waste into useful products

<https://engineering.princeton.edu/news/2024/09/13/carbon-cleanup-experts-show-routes-recycling-carbon-dioxide-and-coal-waste-useful-products>

Recent Peer-Reviewed Articles of Interest

Laser-assisted deuterium-tritium fusion: A quantum dynamical model

<https://journals.aps.org/prc/abstract/10.1103/PhysRevC.110.034614>

Comprehensive screening of plasma-facing materials for nuclear fusion

<https://journals.aps.org/prxenergy/accepted/67078T78Fc814e05a0ed27613dfef5216dfbb464e>

Application of a neural network model with multimodal fusion for fluorescence spectroscopy

<https://link.springer.com/article/10.1007/s41365-024-01528-9>

Analysis of an induced Langmuir wave by ponderomotive forces and its applicability for plasma diagnostics

<https://pubs.aip.org/aip/pop/article/31/9/090703/3313942/Analysis-of-an-induced-Langmuir-wave-by>

High repetition-rate 0.5 Hz broadband neutron source driven by the Advanced Laser Light Source

<https://pubs.aip.org/aip/pop/article/31/9/093106/3313959/High-repetition-rate-0-5-Hz-broadband-neutron>

Learning from each other: Cross-cutting diagnostic development activities between magnetic and inertial confinement fusion (invited)

<https://pubs.aip.org/aip/rsi/article/95/9/093533/3313911/Learning-from-each-other-Cross-cutting-diagnostic>

Nonlinear simulations of GAEs in NSTX-U

<https://pubs.aip.org/aip/pop/article/31/9/092510/3313941/Nonlinear-simulations-of-GAEs-in-NSTX-U>