

Date: 25 Oct 2024

For Heating Plasma in Fusion Devices, Researchers Unravel How Electrons Respond to Neutral Beam Injection

<https://www.energy.gov/science/fes/articles/heating-plasma-fusion-devices-researchers-unravel-how-electrons-respond>

An Efficient Way to Optimize Laser-Driven Nuclear Fusion

<https://physics.aps.org/articles/v17/s127>

Thales and the Max Planck Institute for Plasma Physics set a world record in the field of nuclear fusion

https://www.thalesgroup.com/en/worldwide/group/press_release/thales-and-max-planck-institute-plasma-physics-set-world-record-field

New Plasma Switch Cleans the Pulses in High-Power Lasers

<https://lasers.llnl.gov/news/new-plasma-switch-cleans-pulses-high-power-lasers>

Prof. Howard Wilson to lead science and technology for STEP

<https://www.gov.uk/government/news/prof-howard-wilson-to-lead-science-and-technology-for-step>

Study: Fusion energy could play a major role in the global response to climate change

<https://news.mit.edu/2024/fusion-energy-could-play-major-role-global-response-climate-change-1024>

What's the difference between fusion and fission? A nuclear physicist explains

<https://theconversation.com/whats-the-difference-between-fusion-and-fission-a-nuclear-physicist-explains-240438>

Pulsed-power facility explores elusive warm dense matter regime

<https://ww2.aip.org/scilights/pulsed-power-facility-explores-elusive-warm-dense-matter-regime>

Design of substation grounding grid in CFETR

<https://www.nature.com/articles/s41598-024-76764-5>

Consider the ethical impacts of quantum technologies in defence — before it's too late

<https://www.nature.com/articles/d41586-024-03376-4>

Dodgeball and energy density feature in nuclear comic book

<https://www.world-nuclear-news.org/articles/dodgeball-and-energy-density-feature-in-nuclear-comic-book>

BRICS nations boost nuclear energy collaboration

<https://www.neimagazine.com/news/brics-nations-boost-nuclear-energy-collaboration/>

US DOE opens application for SMR funding

<https://www.neimagazine.com/news/us-doe-opens-application-for-smr-funding/>

How a next-generation particle collider could unravel the mysteries of the Higgs boson

<https://physicsworld.com/a/how-a-next-generation-particle-collider-could-unravel-the-mysteries-of-the-higgs-boson/>

Highest-energy ever gamma rays observed from Milky Way center

<https://discover.lanl.gov/news/1022-hawc-gamma-rays/>

Tracking the Chaos That Surrounds the Aurora

<https://physics.aps.org/articles/v17/s128>

Ubitus plans nuclear-powered AI data centre

<https://www.neimagazine.com/news/ubitus-plans-nuclear-powered-ai-data-centre/>

[Of Interest] The US is the world's science superpower — but for how long?

<https://www.nature.com/articles/d41586-024-03403-4>

Recent Peer-Reviewed Articles of Interest

The effect of a constant electric field in an undisturbed plasma on the stability of the electron beam–gas discharge collisional plasma system

<https://pubs.aip.org/aip/pop/article/31/10/102111/3317881/The-effect-of-a-constant-electric-field-in-an>

Unleashing the Power of Cold Atmospheric Plasma: Inducing Mitochondria Damage-Mediated Mitotic Catastrophe

<https://onlinelibrary.wiley.com/doi/full/10.1002/advs.202401842>

Empirical error field control at JET in preparation of ITER start-up

<https://www.sciencedirect.com/science/article/pii/S0920379624005441>

Experimental observations of bifurcated power decay lengths in the near Scrape-Off Layer of ST40 High Field Spherical Tokamak

<https://www.sciencedirect.com/science/article/pii/S2352179124001959>

Quasi-monoenergetic ion acceleration and neutron generation from laser-driven transverse collisionless shocks

<https://pubs.aip.org/aip/pop/article/31/10/103110/3317210/Quasi-monoenergetic-ion-acceleration-and-neutron>

An examination of nonlinear collisionless magnetic reconnection through eigenmode decomposition

<https://pubs.aip.org/aip/pop/article/31/10/100701/3317251/An-examination-of-nonlinear-collisionless-magnetic>