

Date: 25 June 2024

34th ITER Council - Updated baseline presented

<https://www.iter.org/newsline/-/4052>

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

IAEA Supports Fusion Research with a New Comprehensive Database

<https://www.iaea.org/newscenter/news/iaea-supports-fusion-research-with-a-new-comprehensive-database>

FIA Launches Commercializing Fusion Energy Paper

<https://www.fusionindustryassociation.org/fia-launches-commercializing-fusion-energy-paper/>

Download the full

paper: <https://drive.google.com/file/d/1x3AuRamw4j2FXvXC01fonDAQf7rVyQQV/view>

Using ORNL's Frontier supercomputer, researchers discover new clues to improving fusion confinement

<https://www.ornl.gov/news/using-ornls-frontier-supercomputer-researchers-discover-new-clues-improving-fusion-confinement>

Canada to accelerate fusion development

<https://www.powerengineeringint.com/nuclear/canada-to-accelerate-fusion-development/>

Study reveals material erosion and deposition in fusion reactors

<https://phys.org/news/2024-06-reveals-material-erosion-deposition-fusion.html>

Tokamak Energy to use digital twin technology for ST40 fusion machine testing

<https://www.neimagazine.com/news/tokamak-energy-to-use-digital-twin-technology-for-st40-fusion-machine-testing/>

ITER's proposed new timeline - initial phase of operations in 2035

<https://www.world-nuclear-news.org/Articles/ITER-s-proposed-new-timeline-initial-phase-of-oper>

Speed of sound in quark–gluon plasma is measured at CERN

<https://physicsworld.com/a/speed-of-sound-in-quark-gluon-plasma-is-measured-at-cern/>

Fusion Ignition and the Path to Inertial Fusion Energy

<https://lasers.llnl.gov/news/fusion-ignition-and-the-path-to-inertial-fusion-energy>

From Simulation to Reality: How JOREK Is Shaping the Future of Fusion Energy

<https://euro-fusion.org/eurofusion-news/jorek2/>

Monte-Carlo Simulations of Plasma-Wall Interaction Using ERO2.0

<https://euro-fusion.org/eurofusion-news/ee14/>

US think tank reports China as world leader in nuclear energy innovation

<https://www.neimagazine.com/news/us-think-tank-reports-china-as-world-leader-in-nuclear-energy-innovation/>

Discovery of spontaneous inflow and outflow states of high-temperature plasma by energetic ions

<https://www.eurekalert.org/news-releases/1048779>

Focus on reliability for coolant pumps

<https://www.neimagazine.com/analysis/focus-on-reliability-for-coolant-pumps/>

Key mechanism in nuclear reaction dynamics promises advances in nuclear physics

<https://phys.org/news/2024-06-key-mechanism-nuclear-reaction-dynamics.html>

'Ghost Particles' Could Be The Secret Behind The Heaviest Elements

<https://www.sciencealert.com/ghost-particles-could-be-the-secret-behind-the-heaviest-elements>

Decommissioning of Finland's oldest research reactor complete

<https://www.neimagazine.com/news/decommissioning-of-finlands-oldest-research-reactor-completed/>

Holtec International gets grant for control rod drive system for nuclear reactor

<https://www.power-technology.com/data-insights/holtec-international-gets-grant-for-control-rod-drive-system-for-nuclear-reactor/>

China, France launch satellite to better understand the universe

<https://phys.org/news/2024-06-china-france-satellite-universe.html>

NIF Takes a Quantum Leap into Elusive Metallic Hydrogen

<https://lasers.llnl.gov/news/nif-takes-a-quantum-leap-into-elusive-metallic-hydrogen>

World War Moon: Here's how a major lunar conflict could soon unfold

<https://www.sciencefocus.com/space/moon-wars>

Recent Peer-Reviewed Articles of Interest

Quantum mechanical evolution of electron's Landau state in the dissipative magnetic field

<https://pubs.aip.org/aip/adv/article/14/6/065031/3299107/Quantum-mechanical-evolution-of-electron-s-Landau>

Improvements of NET/ITER shielding to limit short-term radioactivity in magnet materials

<https://www.sciencedirect.com/science/article/pii/S0920379691901500>

X-ray Thomson scattering absolute intensity from the f-sum rule in the imaginary-time domain

<https://www.nature.com/articles/s41598-024-64182-6>