

Date: 07 Aug 2024

## **Heating for fusion: Why toast plasma when you can microwave it!**

<https://www.pppl.gov/news/2024/heating-fusion-why-toast-plasma-when-you-can-microwave-it>

## **First Light advances tokamak dust research**

<https://www.neimagazine.com/news/first-light-advances-tokamak-dust-research/>

## **A method for measuring fusion power in nuclear reactors**

<https://www.cnr.it/it/comunicato-stampa/12884/a-method-for-measuring-fusion-power-in-nuclear-reactors>

## **Japan set for production of ITER outer vertical targets**

<https://www.world-nuclear-news.org/Articles/Japan-set-for-production-of-ITER-outer-vertical-ta>

## **A New Type of Neural Network Is More Interpretable**

<https://spectrum.ieee.org/kan-neural-network>

## **Helion secures licence to advance Polaris fusion facility**

<https://www.neimagazine.com/news/helion-secures-licence-to-advance-polaris-fusion-facility/>

## **A ‘measure’ advance for ultrashort laser light!**

<https://www.eurekalert.org/news-releases/1053584>

## **CNL Launches New Nuclear & Emerging Technologies (N2ET) Program to Accelerate Innovative, Next-Generation Technologies**

[https://www.thecanadianpressnews.ca/globenewswire\\_press\\_releases/cnl-launches-new-nuclear-emerging-technologies-n2et-program-to-accelerate-innovative-next-generation-technologies/article\\_0236b27c-e8f3-5aef-ba8d-14008ccedeeb.html](https://www.thecanadianpressnews.ca/globenewswire_press_releases/cnl-launches-new-nuclear-emerging-technologies-n2et-program-to-accelerate-innovative-next-generation-technologies/article_0236b27c-e8f3-5aef-ba8d-14008ccedeeb.html)

## **Sustaining The Future: Environmental Effects Of AI Scale-Up**

<https://www.forbes.com/sites/forbestechcouncil/2024/08/02/sustaining-the-future-environmental-effects-of-ai-scale-up/>

## **Cosmic microwave background experiments could probe connection between cosmic inflation, particle physics**

<https://phys.org/news/2024-08-cosmic-microwave-background-probe-inflation.html>

## **Separate research groups push fusion plasma performance to new levels**

<https://www.rdworldonline.com/separate-research-groups-push-fusion-plasma-performance-to-new-levels/>

## **Breaking Barriers in Scientific Discovery**

<https://www.energy.gov/science/articles/breaking-barriers-scientific-discovery>

**Scientists discover unexpected behavior in dimers of CO<sub>2</sub> molecules after ionization**

<https://www.eurekalert.org/news-releases/1053227>

### ***Recent Peer-Reviewed Articles of Interest***

**Harnessing energy from laser fusion**

<https://pubs.aip.org/physicstoday/article/77/8/44/3304680/Harnessing-energy-from-laser-fusionA-new-goal-for>

**Validity of gyrokinetic theory in magnetized plasmas**

<https://www.nature.com/articles/s42005-024-01756-w>

**Prospects for free-electron lasers powered by plasma-wakefield-accelerated beams**

<https://www.nature.com/articles/s41566-024-01474-3>

**Effect of nuclear deformation and orientation about the symmetry axis of the target nucleus on heavy-ion fusion dynamics**

<https://journals.aps.org/prc/abstract/10.1103/PhysRevC.110.024601>

**Novel deuterium–tritium (DT) neutron activation diagnostics for increased neutron yield operations at Sandia’s Z-facility (invited)**

<https://pubs.aip.org/aip/rsi/article/95/7/073540/3305503/Novel-deuterium-tritium-DT-neutron-activation>

**Development of Tungsten Repair Technology by Atmospheric Plasma Spraying of Tungsten and Friction Stir Processing**

<https://link.springer.com/article/10.1007/s11666-024-01820-5>