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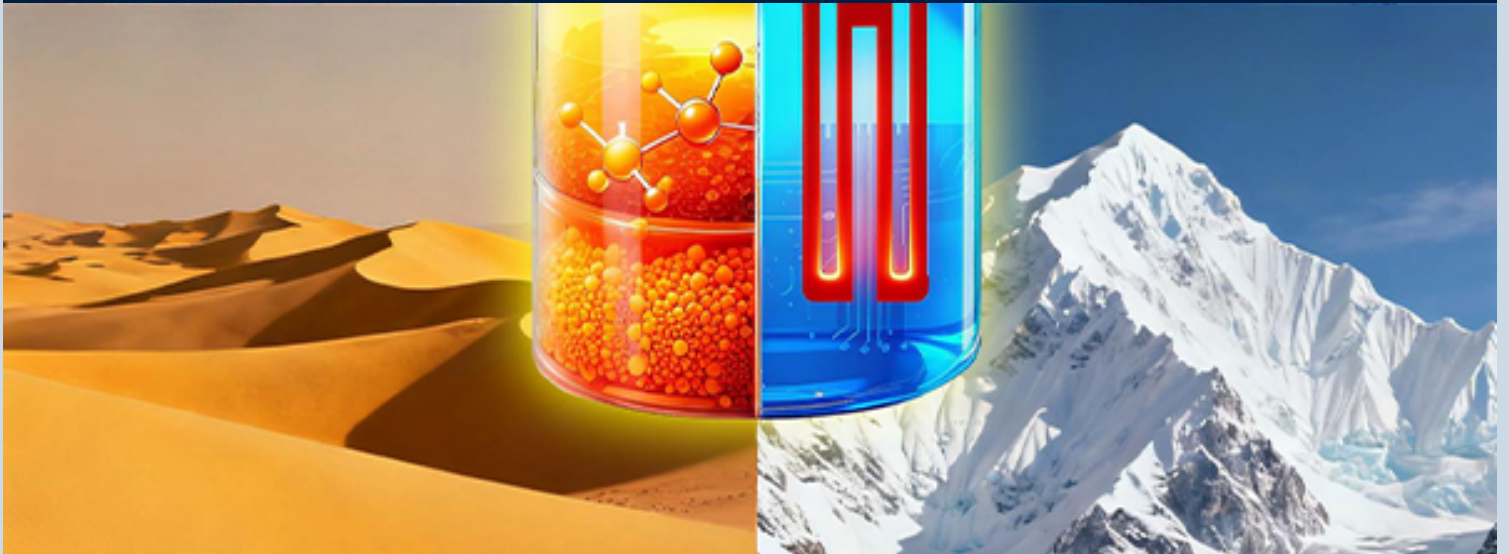
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FEATURED STORY



PROPOSED ALL-CLIMATE
battery design could unlock stability
in extreme temps



LEAD: PROF. CHAO-YANG WANG

The team improved the traditional battery design used in the previous all-climate battery (ACB) research, proposing the implementation of a heating element inside an ACB. This novel approach optimizes the materials in battery construction for high stability and safety in hot environments, while using the internal heating to support battery operation in cold environments.

[READ THE LEAD STORY](#)

OTHER NEWS

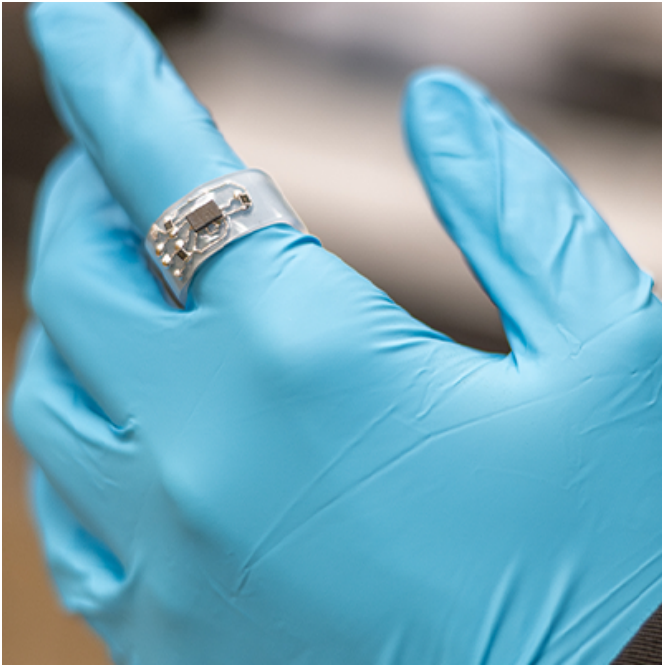


Fermentation waste used to make natural fabric

LEAD: PROF. MELIK DEMIREL

A fermentation byproduct might help to solve two major global challenges: world hunger and the environmental impact of fast fashion.

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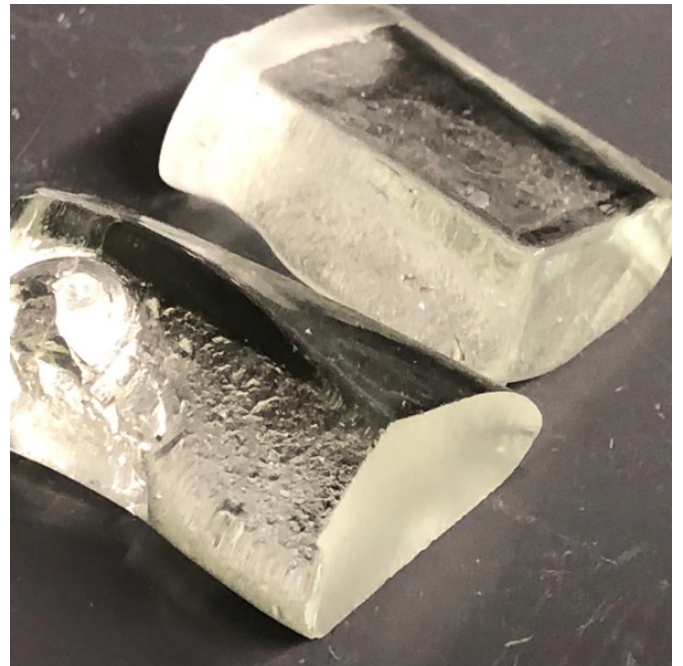
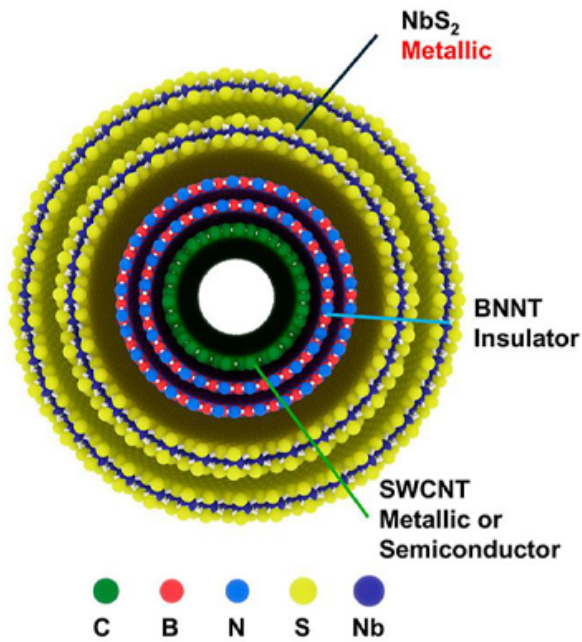


Shrinking materials hold big potential for smart devices, researchers say

LEAD: ASSOC. PROF. HUANYU (LARRY) CHENG

Researchers developed a scalable, versatile approach to designing and fabricating wireless, internet-enabled electronic systems that can better adapt to 3D surfaces, like the human body or common household items.

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Needs salt: Table seasoning enables new nanomaterial development

LEAD: PROF. SLAVA ROTKIN

A new nanomaterial that could open the door to faster electronics, efficient electricity transport via superconductor wires and even future quantum computers was made possible with a surprising ingredient: table salt.

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Verallia taps LionGlass for low-carbon glass packaging for consumer products

LEAD: PROF. JOHN MAURO

A bottled beverage might soon come with a lower carbon footprint thanks to a new partnership between one of the world's leading glass manufacturers and scientists at Penn State.

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After 12 years as MRI director, Clive Randall to step down

Clive Randall, Evan Pugh University Professor of Materials Science and Engineering, will step down to

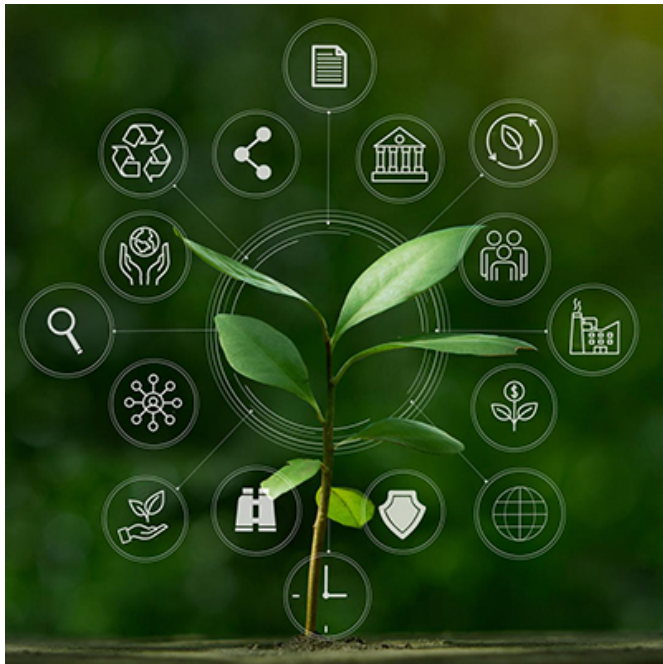


refocus his efforts to teaching and research. He will remain on as director through the summer of 2026 to help guide the transition.

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GRANTS & AWARDS



\$3M NSF grant to fund sustainable materials design graduate training program

LEAD: PROF. ALLISON BEESE

A team of researchers at Penn State was awarded a \$3 million grant from the U.S. National Science Foundation (NSF) to establish a graduate training program designed to equip the next generation of engineers and scientists with the tools required to affect transformative change in sustainable materials



\$1.5M grant to develop advanced digital casting of manufacturing components

LEAD: ASSOC. PROF. GUHA MANOGHARAN

America Makes and the National Center for Defense Manufacturing and Machining have awarded a team at Penn State \$1.5 million to develop a new approach to casting metal components used in machinery and vehicles.

processing.

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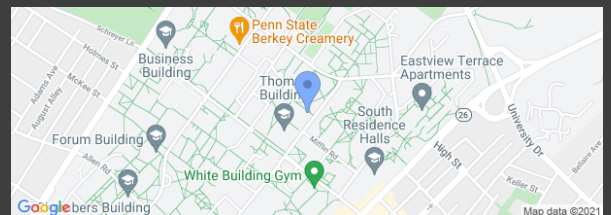
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