



# 12<sup>th</sup> INTERNATIONAL SYMPOSIUM ON SUPERCRITICAL WATER/CARBON DIOXIDE-COOLED REACTORS (ISSCWR-12)

APRIL 12 TO 16, 2027 | XI'AN, CHINA

## SCOPE OF CORE TOPICS

We warmly invite high-quality contributions spanning fundamental research to industrial applications in the following areas for both SCWR and sCO<sub>2</sub> Brayton cycle related energy applications:



Thermal-Hydraulics & Safety Analysis  
(Fluid dynamics, heat transfer, transients)



Materials, Corrosion &  
Coolant Chemistry



Core, Fuel & Reactor Design



Turbomachinery & Balance-of-Plant  
(BOP) Systems



Plant Integration, SMRs, Micro-reactors  
& Fusion Applications



## SYMPOSIUM BACKGROUND



### Shared Physics, Mutual Insights

Both supercritical water and supercritical carbon dioxide share the unique physical essence of supercritical fluids. They encounter highly analogous fundamental challenges in fluid dynamics and material interactions, meaning that their underlying scientific insights can be profoundly cross-referenced to accelerate breakthroughs.



### SCWR - The Key Gen-IV Concept

As the only water-cooled concept among the Generation IV advanced nuclear systems, the SCWR holds a uniquely vital position, building upon decades of mature global light-water reactor heritage to achieve elevated thermal efficiency.



### sCO<sub>2</sub> Brayton Cycle - The Versatile Frontier

In parallel, the sCO<sub>2</sub> Brayton cycle has gained immense prominence as a game-changing power conversion technology widely applicable across Gen-IV reactors, SMRs, and future fusion energy systems.



Following the high scientific standards established by previous symposia—including the successful 11th symposium in Pisa, Italy (February 2025)—ISSCWR-12 in Xi'an, China (April 2027) aims to provide a premium global forum and foster robust collaborations spanning academia and industry.



## KEY DATES AND VENUE



### ABSTRACT SUBMISSION **ATTENTION!**

ISSCWR-12 abstracts must be submitted via email to [isscwr12@hotmail.com](mailto:isscwr12@hotmail.com) before **July 15, 2026**.

Abstract submission must feature an abstract and a brief biography of the presenter, prepared on a single A4 page utilizing MS Word or PDF format.



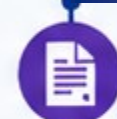
### NOTIFICATION OF ABSTRACT ACCEPTANCE

Before **July 31, 2026**.



### DRAFT PAPER SUBMISSION

Before **Nov 1, 2026**.



### FINAL PAPER SUBMISSION

Before **Jan 1, 2027**.



### SYMPOSIUM DATES

**April 12-16, 2027**.



**VENUE: XI'AN, CHINA**



**SUBMIT YOUR ABSTRACT TO**

**[isscwr12@hotmail.com](mailto:isscwr12@hotmail.com)**



Don't miss this opportunity to contribute to the future of Gen-IV nuclear energy!



### CONTACT INFORMATION

More details will be released through specific website very soon.



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