



Thermag 2024  
BAOTOU - CHINA  
AUGUST 21-24

# 10th IIR International Conference on Caloric Cooling and Applications of Caloric Materials (THERMAG 2024)

## First Announcement and Call for Papers

In recent years, caloric cooling has received renewed interest thanks to the development of new materials with enhanced magneto-, elasto-, baro- and electro-caloric effects and thanks to novel thermal engineering techniques and prototype cooling engine designs. Its potential high efficiency and environmental compatibility make this technique competitive with conventional gas compression technologies.

The International Conference on Magnetic Refrigeration at Room Temperature by the IIR was created in 2005 and its scope broadened to caloric cooling at all temperatures from 2018 (THERMAG VIII) onwards. The Thermag conference represents the state of the art in new caloric materials and innovative cooling techniques and provides the ideal environment to present the latest developments in these fields. The conference offers opportunities for academics and industry to develop research collaborations.

The 10th IIR Conference on Caloric Cooling and Applications of Caloric Materials (THERMAG 2024) will present an overview of new caloric materials and innovative cooling techniques, providing the ideal environment to showcase the latest developments in these fields. This prestigious IIR conference will provide a platform for scientists and engineers from around the world working in the field of caloric materials and devices to meet and discuss their research, ideas and challenges.

### Abstracts

Authors are kindly requested to submit an abstract of approximately 150 words in English. The abstract should contain:

- 1) title of the paper;
- 2) authors' name and affiliation;
- 3) paper abstract;
- 4) keywords;
- 5) name, full address, phone number and email address of the author to whom subsequent correspondence should be directed.

The abstract should include the objectives, results, and conclusion. All full papers will be peer-reviewed and the accepted papers will be included in the conference proceedings that will be published in bound volumes available after the conference.

### Scope

Papers dealing with any aspect of the following topics from fundamental sciences to applied technologies are solicited. Papers are being sought on the following key topics:

- a) Caloric devices for cooling, heating, and energy harvesting
- b) Caloric applications at refrigeration
- c) Thermocaloric energy conversion
- d) Resource basis & recycling of caloric materials
- e) Standardization & terminology of caloric material
- f) Magnetocaloric materials
- g) Elastocaloric materials
- h) Barocaloric materials
- i) Electrocaloric materials
- j) Other solid-state cooling and heating technologies and related materials

### Conference Language

The official language used in the conference will be English.

### Important Dates

Abstract submission due: November 1, 2023  
Abstract acceptance: January 1, 2024  
Full paper submission due: March 1, 2024  
Full paper acceptance: May 1, 2024

### Sponsorship

A wide range of sponsorship packages are available which will enable participation of companies and organizations irrespective of size.

A guideline as to available standard packages can be found on the conference website

### Liaison

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Baotou Research Institute of Rare Earths  
China Northern Rare Earth (Group) High-Tech Co., Ltd.

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### website

For more information, please see the conference website  
(<http://thermag-x.car.org.cn>)

