

# Special Issue

## Radiative Cooling

### Message from the Guest Editors

As an effective and renewable way of passive cooling without power input, radiative cooling has attracted considerable attention in the field of energy-saving and has been recognized as one of the ambient-energy harvesting technologies. Radiative cooling can cool the sky-faced objects by radiating a fraction of the object's thermal radiation to the cold universe ( $\sim 3\text{K}$ ), mainly relying on the atmospheric transparency window in the infrared band from 8 to  $13\text{ }\mu\text{m}$ . Recent progress has demonstrated that a variety of optical emitters can achieve efficient radiative cooling, including multilayer films, photonic coolers, porous polymers, and optical paints. On the system level, radiative cooling has been used in various applications, such as building energy-saving, photovoltaic cooling, water collection, and personal thermal management. This Special Issue is set up to explore new findings on the radiative cooling topics that can be interesting concepts, novel designs, and potential applications, which aims to further promote the development of radiative cooling and correspondingly achieve fossil energy saving and greenhouse gas emissions reduction.

---

### Guest Editors

Dr. Bin Zhao

Department of Thermal Science and Energy Engineering, University of Science and Technology of China, Hefei 230027, China

Dr. Mingke Hu

Department of Architecture and Built Environment, University of Nottingham, Nottingham NG7 2RD, UK

---

### Deadline for manuscript submissions

closed (30 June 2023)



## Sustainability

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 7.7



[mdpi.com/si/106455](https://mdpi.com/si/106455)

*Sustainability*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[sustainability@mdpi.com](mailto:sustainability@mdpi.com)

[mdpi.com/journal/  
sustainability](https://mdpi.com/journal/sustainability)





## Sustainability

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 7.7



[mdpi.com/journal/  
sustainability](https://mdpi.com/journal/sustainability)



## About the Journal

### Message from the Editor-in-Chief

I encourage you to contribute a research or comprehensive review article for consideration for publication in *Sustainability*, an international Open Access journal which provides an advanced forum for research findings in areas related to sustainability and sustainable development. *Sustainability* publishes original research articles, review articles and communications. I am confident you will find the journal contributes to enhancing understanding of sustainability and fostering initiatives and applications of sustainability-based measures and activities.

---

### Editor-in-Chief

Prof. Dr. Marc A. Rosen

Faculty of Engineering and Applied Science, University of Ontario  
Institute of Technology, Oshawa, ON L1G 0C5, Canada

---

### Author Benefits

#### Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

#### High Visibility:

indexed within Scopus, SCIE and SSCI (Web of Science), GEOBASE, GeoRef, Inspec, RePEc, CAPIus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q2 (Environmental Studies) / CiteScore - Q1  
(Geography, Planning and Development)