

**Symposia - A02**  
**Advanced Thermoelectric Materials and Devices**

**October 15 (Sunday), 2023**

**Conference Room: 5501, 5# floor**

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**8:30-9:55** Session I

**Chair: Huai-Zhou Zhao**

**8:30-8:50** (A02-01)

**Zero-emission thermoelectric power generation and refrigeration for carbon neutrality** (Invited)

Zhigang Chen, Queensland University of Technology, Austria

**8:50-9:10** (A02-02)

**Multiphased thermoelectric materials for enhanced properties** (Invited)

Qingyu Yan, Nanyang Technological University, Singapore

**9:10-9:25** (A02-03)

**Integrated Thin-Film Thermocouples for Extreme-Condition Sensing** (Keynote)

Weiyun Zhao, Beihang University, China

**9:25-9:40** (A02-04)

**Performance optimization of rare earth element doped GeMnSbTe thermoelectric materials** (Keynote)

Wenjing Huang, Nanjing University of Aeronautics and Astronautics, China

**9:40-9:55** (A02-05)

**Discovery of the layered thermoelectric compound  $\text{GeBi}_2\text{Se}_4$  and accelerating its performance optimization by machine learning** (Keynote)

Shaoqin Wang, Shanghai University, China

**9:55-10:10** Coffee Break

**10:10-11:20** Session II

**Chair: Jun Luo**

**10:10-10:30** (A02-06)

**Optimized Strategy for Thermoelectrics in chalcogenides** (Invited)

Ang Ran, Sichuan University, China

**10:30-10:45** (A02-07)

**High Thermoelectric Performance in N-Type SnSe Crystals** (Keynote)

Cheng Chang, Beihang University, China

**10:45-11:00** (A02-08)

**Construction and Thermoelectric Optimization of p-type  $\text{Bi}_2\text{Te}_3$ -based Materials** (Keynote)

Ruiheng Li, Sichuan University, China

**11:00-11:20** (A02-09)

**高性能近室温热电材料与器件** (Invited)

Huaizhou Zhao, Institute of Physics, CAS, China

**11:30-13:30** Lunch

**13:30-15:10** Session III

**Chair: Ran Ang**

**13:30-13:50** (A02-10)

**先进热电制冷材料** (Invited)

Li-Dong Zhao, Beihang University, China

**13:50-14:10** (A02-11)

**Recent Advances in Vacancy-filled Heusler Thermoelectric Materials** (Invited)

Jun Luo, Tongji University, China

**14:10-14:25** (A02-12)

**半休斯勒合金与高功率密度制冷** (Keynote)

Hangtian Zhu, Institute of Physics, CAS, China

**14:25-14:40** (A02-13)

**Construction of thermal power generation system for aircraft and its simulated service behavior** (Keynote)

Bo Li, Beijing Institute of Aerospace Technology, China

**14:40-14:55** (A02-14)

**Design and optimization of high-power thermoelectric power generation devices** (Keynote)

Feng Pan, Beihang University, China

**14:55-15:10** (A02-15)

**The research progress of novel n-type layered oxyselenide  $\text{Bi}_6\text{Cu}_2\text{Se}_4\text{O}_6$**  (Keynote)

Junqing Zheng, Beihang University, China

**15:10-15:25** Coffee break

**15:25-16:50** Session IV

**Chair: Li-Dong Zhao**

**15:25-15:45** (A02-16)

**High-integration and high-performance micro-thermoelectric generator by femtosecond laser direct writing** (Invited)

Wei Zhu, Beihang University, China

**15:45-16:00** (A02-17)

**Solubility Engineering-Driven Thermoelectric Enhancement in Lead Chalcogenides** (Keynote)

Qian Deng, Sichuan University, China

**16:00-16:15** (A02-18)

**The design strategies of high performance micro-thermoelectric cooler and self-powered temperature electronic-skin based on Bi-Te thick film directly formed by powder** (Keynote)

Weifeng Zhang, Beihang University, China

**16:15-16:30** (A02-19)

**低温区高优值(z)热电材料  $Mg_3Bi_xSb_{2-x}$  ( $x = 1.5, 1.25$ )的制备与器件研究**(Keynote)

Nan Chen, Institute of Physics, CAS, China

**16:30-16:45** (A02-20)

**Structure and thermoelectric properties evolution of  $TiFe_{1.1-x}Ni_xSb$  with the filling of Ni** (Keynote)

Zirui Dong, Shanghai University, China

**16:45-17:05** (A02-21)

**硫族合金热电性能优化**(Invited)

Hongchao Wang, Shandong University, China

**17:50 Dinner**