

## Symposia - A05

### Materials Research in Thermal Energy, Processes and Management

October 15 (Sunday), 2023

Conference Room: 7112, -1# floor

---

**9:00-10:30** Session I

**Chair: Hui Wang**

**9:00-9:30** (A05-01)

**Structure and property relationship in GeTe based thermoelectric materials** (Invited)

Jiaqing He, Southern University of Science and Technology, China

**9:30-10:00** (A05-02)

**Property analysis and simulation package for materials (PASP) and its applications to ferroic materials** (Invited)

Hongjun Xiang, Fudan University, China

**10:00-10:30** (A05-03)

**Phonon measurement at nano and atomic scale** (Invited)

Peng Gao, Peking University, China

**10:30-10:40** Coffee Break

**10:40-12:00** Session II

**Chair: Chengwei Wang**

**10:40-11:10** (A05-04)

**Computational Exploration of Oxides for Solar Thermal Chemical Water Splitting Applications** (Invited)

Jiangang He, University of Science and Technology Beijing, China

**11:10-11:40** (A05-05)

**Advanced catalysis through strain and electronic structure engineering at materials interfaces** (Invited)

Jianbo Wu, Shanghai Jiao Tong University, China

**11:40-12:00** (A05-06)

**Atomistic visualization of chemical reaction pathways using electron microscopy** (Student)

Wenbo Zhou, Shanghai Jiao Tong University, China

**12:00-14:00** Lunch

**14:00-15:45** Session III

**Chair: Zhenpeng Yao**

**14:00-14:30** (A05-07)

**Barocaloric effects and thermal energy storage** (Invited)

Bing Li, Institute of Metal Research (IMR), Chinese Academy of Sciences (CAS), China

**14:30-15:00** (A05-08)

**Functional design of metal oxides for chemical looping technologies** (Invited)

Xing Zhu, Kunming University of Science and Technology, China

**15:00-15:30** (A05-09)

**Bioinspired solar-thermal energy storage: from sensible to latent heat** (Invited)

Peng Tao, Shanghai Jiao Tong University, China

**15:30-15:40** Coffee Break

**15:40-16:40** Session IV

**Chair: Wenpei Gao**

**15:40-16:10** (A05-10)

**Engineering the thermal and mechanical properties of ceramic aerogels** (Invited)

Lei Su, Xi'an Jiao Tong University, China

**16:10-16:40** (A05-11)

**Tunable Thermal Energy Conversion and Heat Transfer Performance of Assembled Nanomaterials** (Invited)

Chengyi Song, Shanghai Jiao Tong University, China

**17:50** Dinner