

## Program of Session N

### Crystals for Photovoltaics and New Energy Applications

**N1: August 4 (Monday), 14:00-15:30**

**Room:** 304

**Chair:** Chung-wen Lan

<b>14:00-14:30</b>	<b>N01 (Invited)</b> Origins and Characterization of Striation Defects in n-Type Czochralski Silicon <b>Guixiu Li, Shuai Yuan, Shenglang Zhou, Cheng Xue, Yihua Wu, Hongrong Chen, Huali Zhang, Chen Wang, Lei Wang, Xuegong Yu, Deren Yang, State Key Laboratory of Silicon and Advanced Semiconductor Materials and School of Materials Science and Engineering, Zhejiang University, CHINA</b>
<b>14:30-15:00</b>	<b>N02 (Invited)</b> Control of oxygen transport in single crystal growth of silicon by continuous-feeding Czochralski method <b>Lijun Liu, Jiancheng Li, Xi'an Jiaotong University, CHINA</b>
<b>15:00-15:15</b>	<b>N03 (Oral)</b> Quantum Fluctuation enhanced Millikelvin Magnetic Refrigeration in Triangular Lattice Magnet <b>Weijie Lin, Shu Guo, Southern University of Science and Technology, CHINA</b>
<b>15:15-15:30</b>	<b>N04 (Oral)</b> Crystal structure of Ge and Sn-containing defect adamantine $A^I \square B^{III} C^{IV} X^{VI}_4$ <b>Yvonne Tamm, Galina Gurieva, Susan Schorr, Helmholtz-Zentrum Berlin für Materialien und Energie, GERMANY</b>

**N2: August 4 (Monday), 16:00-17:30**

**Room:** 304

**Chair:** Lijun Liu

<b>16:00-16:30</b>	<b>N05 (Invited)</b> Investigation into Carrier Transporting Materials and Interfacial Modulation in Solar Cells <b>Qian Kang, Beijing University of Technology, CHINA</b>
<b>16:30-17:00</b>	<b>N06 (Invited)</b> Crystal Growth Enables Optimal Octahedral Structuring in Perovskites <b>Yong Wang, Zhejiang University, CHINA</b>
<b>17:15 – 17:30</b>	<b>N07 (Oral)</b> Recent Advances and New Insights into Oxygen Reduction Technologies in Cz Method Monocrystalline Silicon <b>Horton Ma, Xuguang Huang, JASolar, CHINA</b>

**17:30-17:45**      **N08 (Oral)**  
Study on the Conductive Mechanism of Indium-free TTO Thin Films for Silicon based Solar cells  
**Xuelin Yue, Jian Yu, Southwest Petroleum University, CHINA**

**N3: August 5 (Tuesday), 11:00-12:45**

**Room: 304**

**Chair: Xuegong Yu**

**11:00 – 11:30**      **N09 (Invited)**  
Doping and defect engineering of metal compounds for carrier selective crystalline silicon heterojunction solar cells  
**Peng Wang, Zhejiang Sci-Tec University, CHINA**

**11:30 – 11:45**      **N10(Oral)**  
Mitigated front contact energy barrier for efficient and stable perovskite solar cells  
**Daoyong Zhang<sup>1</sup>, Biao Li<sup>1</sup>, Pengjie Hang<sup>1</sup>, Jiangsheng Xie<sup>2</sup>, Yuxin Yao<sup>1</sup>, Chenxia Kan<sup>1</sup>, Xuegong Yu<sup>1</sup>, Yiqiang Zhang<sup>3</sup>, Deren Yang<sup>1</sup>**  
**1. Zhejiang University, CHINA**  
**2. Sun Yat-sen University, CHINA**  
**3. Zhengzhou University, CHINA**

**11:45 – 12:00**      **N11 (Oral)**  
Impact of Phosphorus Diffusion Pre-gettering on the electrical properties of Oxygen Precipitates in n-Type Czochralski Silicon for Heterojunction Solar Cells  
**Ruokai Wu, Xuegong Yu, Deren Yang, Zhejiang University, CHINA**

**12:00 – 12:15**      **N12(Oral)**  
In-situ crosslinked networks at perovskite grain boundaries enabling sustainable silicon-based tandem  
**Jiyao Wei, Xuegong Yu, Zhejiang University, CHINA**

**12:15 – 12:30**      **N13(Oral)**  
Investigation on Energy Resolution of CsPbBr<sub>3</sub> Single-Crystal Detectors  
**Xin Zhang, Northwestern Polytechnical University, CHINA**

**12:30 – 12:45**      **N14 (Oral)**  
Doping 2D perovskite in 2D/3D perovskite heterojunction enhances perovskite-silicon tandem solar cells  
**Ruilin Li, Daoyong Zhang, Xuegong Yu, Pengjie Hang, Zhejiang University, CHINA**