

## [TS12T5]

### Sustainable Process and Nanomaterials I

Date & Time	July 4(Thu.), 2024 / 15:40-17:55
Place	Room 209A
Session Chair(s)	Gill Sang Han (KRICT)

**TS12T5\_I\_1 \*Invited** 15:40-16:10

**Defect Engineering of Metal-Halide Perovskites for Next-Generation Optoelectronic Devices**

Hobeom Kim  
(GIST)

**TS12T5\_I\_2 \*Invited** 16:10-16:40

**Metal Halide Perovskite Quantum Dots as Visible-Light Photocatalyst for Organic Transformation**

Sudarsan Tamang  
(Sikkim University)

**TS12T5\_I\_3 \*Invited** 16:40-17:10

**Highly Stable and Off-State-Free Environmental-Friendly InP/ZnSe/ZnS Quantum Dots Achieved by Wavefunction Engineering**

Hye Seon Kim, Yeongcheol Kim, Seongwoo Cho, and Ju Young Woo  
(KITECH)

**TS12T5\_O\_4** 17:10-17:25

**In Situ Polymerization of Cross-Linked Perovskite-Polymer Composites for Highly Stable and Efficient Perovskite Solar Cells**

He Guo and Hyun Suk Jung  
(Sungkyunkwan University)

**TS12T5\_O\_5** 17:25-17:40

**Completely Annealing-Free Flexible Perovskite Quantum Dot Solar Cells Employing UV-Sintered Ga-Doped SnO<sub>2</sub> Electron Transport Layers**

Wooyeon Kim, In Choi, Subin Yu, Seoyeong Lee, Jae Yeon Kim, Jae Won Jang, and Min Jae Ko  
(Hanyang University)

**TS12T5\_O\_6** 17:40-17:55

**Control of Bulk Defects in MAPbBr<sub>3</sub> Single Crystals via Non-Stoichiometric Reactions for Improving the X-Ray Limit of Detection**

Hyemin Lee<sup>1</sup>, Beomjun Park<sup>2</sup>, Jangwon Byun<sup>1</sup>, Man-Jong Lee<sup>2</sup>, and Dong Hoe Kim<sup>1</sup>  
(<sup>1</sup>Korea University, <sup>2</sup>Konkuk University)