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NANO KOREA 2026

The 24th International Nanotech Conference

Innovation for Future: As Nano Meets AI

July 8(Wed.) – 10(Fri.), 2026

KINTEX Exhibition Hall 1, Korea

Hosted by Ministry of Science and ICT, Ministry of Trade, Industry and Resources

Organized by KoNTRS Korea Nanotechnology Research Society, KNTIA

TS06 Hybrid Nanomaterials for Convergent Science and Emerging Technologies

Theme

Multifunctional Hybrid Nanomaterials Enabling Structural, Optoelectronic, and Chemical Convergence for Emerging Technologies

The 2025 Nobel Prize in Chemistry recognized metal-organic frameworks (MOFs), emphasizing the importance of inorganic-organic hybrid architectures in modern science. Such multifunctional hybrid nanomaterials, integrating inorganic frameworks, carbon nanostructures, organic molecules, and biomolecules, are now essential across AI, quantum devices, energy, bio, and environmental technologies, where single-component materials can no longer meet complex functional demands. By combining structural, electronic, and chemical convergence, and leveraging rational design, hierarchical structuring, and AI-assisted discovery, hybrid nanomaterials offer unprecedented interfacial control and synergistic performance. This session highlights recent advances in the design, synthesis, and application of these materials, focusing on their roles as platforms for next-generation convergent and emerging technologies.

Topics

- Design principles and synthesis strategies for multifunctional hybrid nanomaterials
- Structural, electronic, and chemical convergence through heterointerface engineering
- Hierarchical and multiscale architectures enabling emergent functionalities
- Interfacial phenomena and synergistic effects in complex hybrid systems
- Hybrid platforms for cross-domain technologies: energy, quantum, electronics, sensing, catalysis, and biomedicine
- Advanced characterization and modeling of multifunctional hybrid interfaces
- Scalable fabrication, integration, and system-level implementation of hybrid materials

Important Dates

Abstract Submission Deadline	Notification of Acceptance	Presenter & Pre-Registration Deadline
Friday, March 27, 2026	**Friday, April 24, 2026**	**Friday, May 15, 2026**

Invited Speakers

- Cheol-Joo Kim (POSTECH)
- Daniel A. Heller (MSK, Cancer Center)
- Guohua Hu (CUHK)
- Guosong Hong (Stanford Univ.)
- Hae Yeon Lee (Rice Univ.)
- Jian Zhu (Nankai Univ.)
- Jin Woong Kim (Sungkyunkwan Univ.)
- Jong Hun Kang (Seoul Nat'l Univ.)
- Li-Yang Liu (Chalmers Univ. of Tech.)

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Abstract Submission →

http://nanokorea-conference.or.kr/2026/abstract.php

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