

The KONA Award 2025

The KONA Award has been presented to researchers who have greatly contributed to research and development as well as education in the field of Powder and Particle Science and Technology since 1990. Originally established by the Hosokawa Micron Corporation, it is now presented annually to distinguished researchers worldwide by the Hosokawa Powder Technology Foundation. Candidates are rigorously reviewed by the KONA Award Committee, and the final selection is approved by the Foundation's Board of Directors. The award is presented with a plaque and a prize of one million yen.

The KONA Award 2025 has been presented to Professor Arno Kwade from the Technical University of Braunschweig (TU Braunschweig), Germany, in recognition of his pioneering contributions to the fundamental understanding of particle stressing and his leadership in translating particle technology into high-impact applications, notably in battery production and pharmaceutical engineering.

Award Presentation at WCPT10: The KONA Award 2025 presentation ceremony was held on May 13, 2026 at the Grand Cube Osaka, during the 10th World Congress on Particle Technology (WCPT10). Mr. Yoshio Hosokawa, President of the Hosokawa Powder Technology Foundation, presented the KONA Award plaque to Professor Arno Kwade in the presence of several hundred distinguished researchers and engineers from around the world. This ceremony highlighted the Foundation's ongoing commitment to fostering international academic exchange and recognizing excellence in the field.

Academic Career and Achievements Professor Arno Kwade began his distinguished career in the private sector as a CEO before returning to academia in 2005 to lead the Institute of Particle Technology (iPAT) at TU Braunschweig. Since then, he has established himself as a preeminent figure in the field of comminution, dispersion, and formulation of ultrafine particles. His research has yielded over 580 peer-reviewed articles with more than 18,000 citations, achieving a remarkable *h*-index of 70 today.

Professor Kwade is widely recognized for developing globally applied model approaches that describe the stressing of particles and powders within comminution, mixing and compaction processes at the nano and micro levels. His work bridges the gap between fundamental theory and industrial practice, facilitating the adoption of advanced particle technologies across various sectors.

Leadership in Innovative Applications Beyond fundamental research, Professor Kwade is a global leader

in the process engineering of battery electrodes and pharmaceutical production. He was instrumental in establishing two major interdisciplinary research centers and related buildings at TU Braunschweig: the Center for Pharmaceutical Engineering (PVZ) and the Battery LabFactory Braunschweig (BLB).

His plenary lecture at WCPT10, titled "Comminution, mixing and compaction of particulate materials: Important process-structure-property functions for the production of battery electrodes and solid drug products," showcased his profound expertise in optimizing the entire process chain—from raw particles to high-performance end products.

Key Research Highlights for the KONA Award 2025

- 1. Fundamental Stress Models:** Developing collision-based kinetic energy models for stirred media mills to predict product fineness and contamination.
- 2. Pharmaceutical Nanosuspensions:** Advancing the production and downstream processing of API nanosuspensions through combined top-down and bottom-up approaches.
- 3. Battery Electrode Processing:** Leading the shift toward continuous suspension dispersion and dry coating technologies for next-generation lithium-ion and solid-state batteries.

Beyond his scientific innovations, Professor Kwade demonstrates an unwavering commitment to educating and mentoring the next generation of researchers. His career trajectory and passion are the very embodiment of the future of particle technology, and his profound influence will undoubtedly continue to shape the global landscape of the field for many years to come.



At the KONA Award presentation ceremony:
President Hosokawa (Right) and 2025 KONA Awardee Prof.
Arno Kwade (Technical University of Braunschweig, Germany).