

Beyond Purity: Flowing into the Infinite Future

Yesiang Debuts World's First Carbon-Neutral Chemical Filter at SEMICON Taiwan 2026, Unveiling an Integrated Gas-to-Liquid Contamination Control Platform

Circular Regeneration × AI-Powered Manufacturing × Gas-Liquid Integration

Taipei, Taiwan —August 17, 2026—Yesiang Enterprise Co., Ltd. (TWSE: 7909), a Taiwan-based provider of cleanroom airborne molecular contamination (AMC) filtration and the world's first BS 8001-certified filter manufacturer, today announced its exhibition lineup for SEMICON Taiwan 2026, where the company will showcase a new generation of micro-contamination control solutions built on materials science, AI-powered prediction, and circular regeneration technology.

Under the theme "Beyond Purity: Flowing into the Infinite Future," Yesiang will present, for the first time, the world's first carbon-neutral chemical filter, alongside a fully circular filtration platform, an AI-driven Clean Air as a Service (CaaS) model, and a newly debuted advanced liquid filtration cartridge engineered for the angstrom era of semiconductor manufacturing.

As the industry advances into this era of atomic-scale precision, the margin for error keeps shrinking. Airborne molecular contamination control now sits at nanometer scale and directly dictates whether an advanced node yields or not, while quality, carbon, and traceability are increasingly managed as a single operating mandate rather than three separate programs. Yesiang has spent decades preparing for exactly this convergence, and believes it is uniquely positioned to connect AI-enabled decisions with truly regenerative manufacturing.



James Chuang, Chairman of the Board and President, Yesiang Enterprise Co., Ltd., with the company's regenerative filter.

World's First Carbon-Neutral Chemical Filter, Regenerable 10+ Times

Yesiang's high-precision filter is designed for repeated regeneration, supporting at least ten regeneration cycles per unit with a material recovery rate above 95 percent. Compared with conventional single-use filters, the fully circular solution reduces carbon emissions by more than 85 percent. The regeneration process itself delivers a

41.7 percent energy saving per cycle, from 490.5 kWh to 285.8 kWh, while retaining 99.9 percent of original process performance, turning filter media from a disposable cost item into a traceable, quantifiable, low-carbon asset. Across its regeneration program.

Clean Air as a Service: From Filter Supplier to Circular Service Partner

Powered by Yesiang's Domain Twin Platform, the company's CaaS model closes the loop across supply and installation, monitoring and detection, collection and tracking, regeneration, and redelivery. New for 2026, the platform adds AI monitoring and early-warning capability, agent-automated service workflows, and intelligent delivery and service planning, enabling Yesiang to flag filter saturation or abnormal usage trends up to three days in advance and shift maintenance from reactive to predictive.



Yesiang's cleanroom filter production line, supporting the company's regenerative manufacturing and CaaS operations.

AI Data Governance and Digital Twin Smart Factory

Yesiang's AI Smart Monitoring system pairs predictive maintenance with multivariate anomaly analysis, targeting a 40 percent reduction in unplanned downtime and an 8-point yield improvement. Digital twin simulation validates production changes before they ever reach the physical line, targeting a 30 percent reduction in production cycle time. A proprietary retrieval-augmented generation knowledge base, the Domain Twin, digitizes decades of engineering judgment into an always-available, cross-border technical support system linking Taiwan headquarters with engineering teams in Japan, the United States, and China.

Debut: Advanced Liquid Filtration Cartridge for 2nm and Angstrom-Era Processes

Making its first public appearance, Yesiang's new liquid filtration cartridge features hydrophilic surface modification, low extractables, and high chemical resistance, purpose-built to meet the stringent cleanliness demands of 2nm and angstrom-scale semiconductor manufacturing. The launch extends Yesiang's contamination control expertise from gas-phase to liquid-phase filtration, completing an integrated pollution-control portfolio that spans gas and liquid media, intelligent manufacturing, and circular regeneration.

"Smart technology and the circular economy are not parallel paths -- they are one system, driving each other forward," said James Chuang, Chairman of the Board and President, Yesiang Enterprise Co., Ltd. "Yesiang has spent decades preparing for the convergence of quality, carbon, and traceability, and we believe Smart Resilience, combining AI data governance with regenerative manufacturing, is the new operating standard for our industry."

Visit Yesiang at SEMICON Taiwan 2026

SEMICON Taiwan 2026

Venue: Taipei Nangang Exhibition Center, Hall 2, 4F

Booth: R7300

TechXPOT Showcase — September 4, 2026, 10:40–11:00, Hall 2, 3F, TechXPOT Stage, Session X0045.

Yesiang Chairman James Chuang will also take the stage at the Semiconductor Sustainability Summit, held alongside SEMICON Taiwan 2026, delivering a keynote on Wednesday, September 2, 2026, from 14:05 to 14:30. Under the program theme "Smart Resilience: Driving Nature-Positive Production through AI, Automation and Circularity," Chuang will share how Yesiang combines AI data governance with regenerative manufacturing to build a measurable, traceable, and resilient low-carbon smart factory for the semiconductor industry.