

Event Highlights: PureGen Product Technical Seminar 2025, Penang

by Chow KW, April 2025



With the theme **“Optimising EDI, UF and RO Membrane Technologies in UPW Systems for the Semiconductor Industry,”** PureGen received overwhelming response with more than 60 industry practitioners, actively engage in this comprehensive platform for knowledge exchange, technical insights, and networking opportunities. We were honoured to host presentations from three of our esteemed principals, each a leader in their respective technologies:

1. LG Chem: Advancing Reverse Osmosis with TFN Technology

The seminar commenced with an insightful presentation by Mr. Shin HyungSub from LG Chem, South Korea. He introduced LG Chem's comprehensive RO membrane portfolio, featuring the world's first Thin-Film Nanocomposite (TFN) technology. This proprietary innovation integrates nanoparticles onto membrane surfaces, significantly enhancing flux while maintaining exceptional salt rejection. These features translate into a highly efficient, reliable, and industry-leading RO solution for ultrapure water (UPW) and wastewater reclamation systems in semiconductor and other industry applications.

LG Chem Presentation Highlights

- ✓ LG's proprietary **TFN** nanocomposite membrane technologies that allow higher **fouling resistance** and **durability**
- ✓ Latest **LG MaxRO R** model that comes with 36mil spacer, offer extra low DP while maintain high salt rejection
- ✓ Other membrane models e.g. ES-L, AFR G2, MOST+ for different applications
- ✓ Discussed issues with wastewater application, with case studies from microelectronics and municipal systems



2. Scinor: High-Performance UF Membranes Powered by TIPS Technology

Post-lunch, Mr. Austin Huang, International Sales Manager from Scinor, China, presented their range of Ultra-Filtration (UF) membranes. Scinor's product lineup includes pressurized, submerged, and retrofit-type UF membranes, offering versatility for various plant configurations.

Scinor Presentation Highlights

- ✓ Scinor's advanced **Thermally Induced Phase Separation (TIPS)** technology that differentiate from competitors
- ✓ TIPS technology allows **higher flux**, outstanding chemical and fouling tolerance that equals to **longer life span**
- ✓ Own 280+ patents and international recognized certifications **NSF-61** and **NSF-419**
- ✓ Case studies of Scinor's UF, include **Retrofit models** in clean and wastewater applications across the world



3. Ionpure (Xylem): Leading the Future of Chemical-Free CEDI Technology

The final session spotlighted the latest Continuous Electrodeionization (CEDI) technologies from Xylem's Ionpure division. Presented by Ms. Charlene and Mr. Pan Jia Sheng, the segment emphasized how Ionpure has pioneered CEDI since its commercialization in 1987.

Ionpure (Xylem) Presentation Highlights

- ✓ Ionpure is the only brand to offer up to **55gpm** CEDI modules that produce consistent ultrapure water quality that match or surpass convention mixed bed technology
- ✓ **Chemical free, no complicated regeneration**, no wastewater generation
- ✓ Technical specifications and Design of CEDI system
- ✓ Comparison of CEDI with Mixed Bed deionization in terms of Capex and Opex
- ✓ Case Study and experience sharing of Ionpure CEDI in the most stringent UPW System of microelectronics Industry



PureGen Classic would like to thank to all the participants, speakers, and the organizing committee in making this a fruitful event. The encouraging turn out rate is a testimonial of PureGen's commitment in delivering the cutting-edge water treatment products and technologies that relevant to Malaysia industry landscape.



From Left: SK Chin (PGC), Charlene, Pan (both Xylem), KC Loh, CH Lim (both PGC), HyungSub (LG Chem), Austin (Scinor)

