

ECI Technology

The Global Leader in Wet Chemistry Process Control for Semiconductor and Printed Circuit Board Manufacturers

ECI Technology is a leading provider of chemical process control equipment to semiconductor and PCB industries worldwide. ECI develops and manufactures cutting-edge control systems for metal deposition, cleaning and etching processes used for manufacturing of advanced semiconductor devices. ECI products are installed throughout the leading fabs— assuring chamber / bath conditions are within specifications, qualifying incoming materials and monitoring chemical waste. ECI systems are widely accepted as critical enablers for the successful implementation of wet processes.

Semiconductor Manufacturing

ECI's chemical management systems are essential in meeting the challenging requirements of advanced semiconductor manufacturing where processes must operate within narrowing process windows. By precisely controlling the composition of chemicals, the company's accurate, reliable analyzers help manufacturers accelerate process development and ramp-to-volume, shorten time-to-market for new products and maximize yields in high-volume manufacturing. Building on decades of innovative research and critical IP, ECI works with end users, tool manufacturers and materials suppliers to provide optimized control solutions for new and estab-lished processes. Its products interface seamlessly with process tools to monitor chemical concentrations and automatically control replenishment systems.

Advanced Packaging and PCB

ECI pioneered QUALILAB plating bath analyzer, that has become the standard for plating appli-cations in the PCB industry worldwide. The speed and accuracy of ECI measurements enable precise control of bath composition to ensure void-free plating. Today, as the rate of development in packaging and PCB processes matches the fast pace maintained by the semiconductor industry, ECI leverages its deep expertise and adaptability to help its back-end customers tighten process windows and maximize yields as they strive to meet the rapidly-changing demands of their industry.

Product Portfolio

- QUALI-LINE® Market Leader for Cu Damascene, fully automated on-line chemical metrology for Inter¬connects metallization processes, Copper and Cobalt
- QUALI-FILL® Market Leader for Packaging, fully automated on-line chemical management, metrology and replenishment, for metallization processes in Advanced Packaging, including: WLP, CSP, Fan-Out, TSV, PLP, PCB and others
- QUALISURF® Market Leader for Wet Processing, fully automated on-line and benchtop chemical metrology for surface preparation technology: Cleans & Etch for process control, cost reduction by reclaim and materials inspection
- · QUALILAB®, benchtop plating bath analyzer



A Complete Portfolio of Analyzers for Wet Chemistry Processing

What Makes ECI Different

Technology Innovation and Leadership

Since its inception in 1987, ECI has established itself as the technical leader in chemical process control. The company has been recognized repeatedly for innovation and holds a broad portfolio of patents.

A Team with Unsurpassed Experience and Expertise

Team work is at the heart of ECI's problem solving approach and core team members average 10-20 years of experience with the company. The R&D staff includes world-renowned scientists who speak regularly at major analytical conferences. All products are designed and manufactured in-house by a staff of dedicated engineers and technicians.





A Comprehensive Problem Solving Approach

ECI's broad analytical expertise and deep experience permit a comprehensive approach to meeting customer challenges. ECI integrates multiple analytical techniques to create an optimal solution that not only gives the best answer but also meets the challenging demands of the high-volume manufacturing environments for speed, reliability, cost-of-ownership and ease-of-use. Partial list of techniques:

Available Online Analytical Methods

- CVS Cyclic Voltammetric Stripping
- Potentiometric Titration
- Conductometric Titration
- ICP-MS, ICP-OES
- E-Chem Impedance
 Surface Tension
- LIV Via Sportroscopy
- NIR Spectroscopy
- HPLC
- UHPLC
- Specific Gravity
- OCP (Open Circuit Potentiometry)
- Dissolved Oxygen

Global Sales, Service & Support

ECI maintains a global sales and service organization that supports thousands of successful installations in major fabs around the world. The organization provides comprehensive technical support, service and training for all products. Staffing in every territory includes service and process engineers.



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