

SEMICONDUCTOR MANUFACTURING

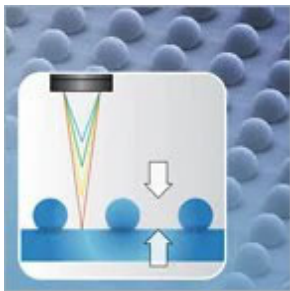
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Fundamentals of thyristors

A thyristor is a solid-state semiconductor device with four layers of alternating P-type and N-type materials used for high-power applications. Thyristors play a crucial role in power electronics due to their ability to handle large currents, switch efficiently, offer solid-state reliability and be cost-effective. [Read more](#) →



Micro-Epsilon Group

Recognition and measurement of bumps on silicon wafers

The shape and dimensions of bumps are reliably measured with [confocalDT sensors](#). They generate a small light spot on the wafer and reliably detect the smallest parts and structures with high resolution.

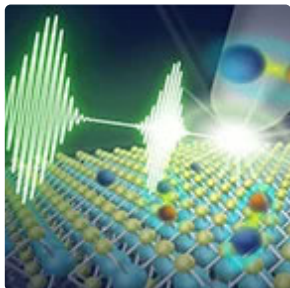
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THK America, Inc.

THK — leading player in the manufacturing industry

Today, semiconductor manufacturing equipment is essential to produce all kinds of electronics equipment. [THK products](#) can meet this sort of high technology need for today and tomorrow and beyond.

[Learn more](#)



Decoding ultrafast light dynamics with atomic force microscopy

An improved technique for analyzing single-atom defect structures and minor electron behavior disturbance in semiconductor and other materials has been demonstrated. [Read more](#) →



What are 3D processors? What do they mean for wireless communication?

Transistors simply won't function predictably beyond a few nanometers in size, not without strange quantum effects throwing an atomically scaled wrench in the works. [Read more](#) →



White Paper

Panametrics

Five critical factors in selecting flow meters for semiconductor manufacturing

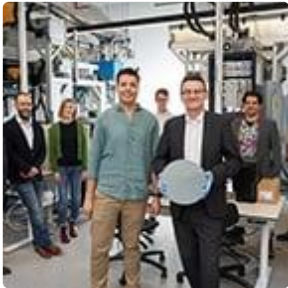
All flow meters are engineered to help maximize product yield and maintain an ultra-pure production environment. This new selection guide takes all the guesswork out of choosing the best flow meters for semiconductor manufacturing.

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A brief intro to photodiode light sensors

Several types of photodiode sensors are available today, each with a unique working principle, operation mode and suitability for different applications. Therefore, it is important to have a basic understanding of photodiodes before choosing one for an application. [Read more](#) →



Diraq achieves record fidelity for single-qubit quantum computing

Australian startup Diraq achieved a 99.9% single-qubit fidelity on a quantum processing device manufactured by research hub Imec using standard CMOS materials on a 300 mm silicon wafer. [Read more](#) →



IntelLiDrives, Inc.

XYZ gantry systems for precision applications

Low profile motorized XYZ actuators with precision ball screw provide exceptional 10 micron repeatability in a very compact form factor.

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Asahi/America, Inc.

Asahi/America's Dymatrix™ ultra high temperature process solutions

Asahi/America's silicon-carbide-process-ready Dymatrix™ valves are ideal for standard (80° C), mid-temp (140° C) or high-temp (200° C) applications.

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