

What Is Extreme Ultraviolet & Deep Ultraviolet?

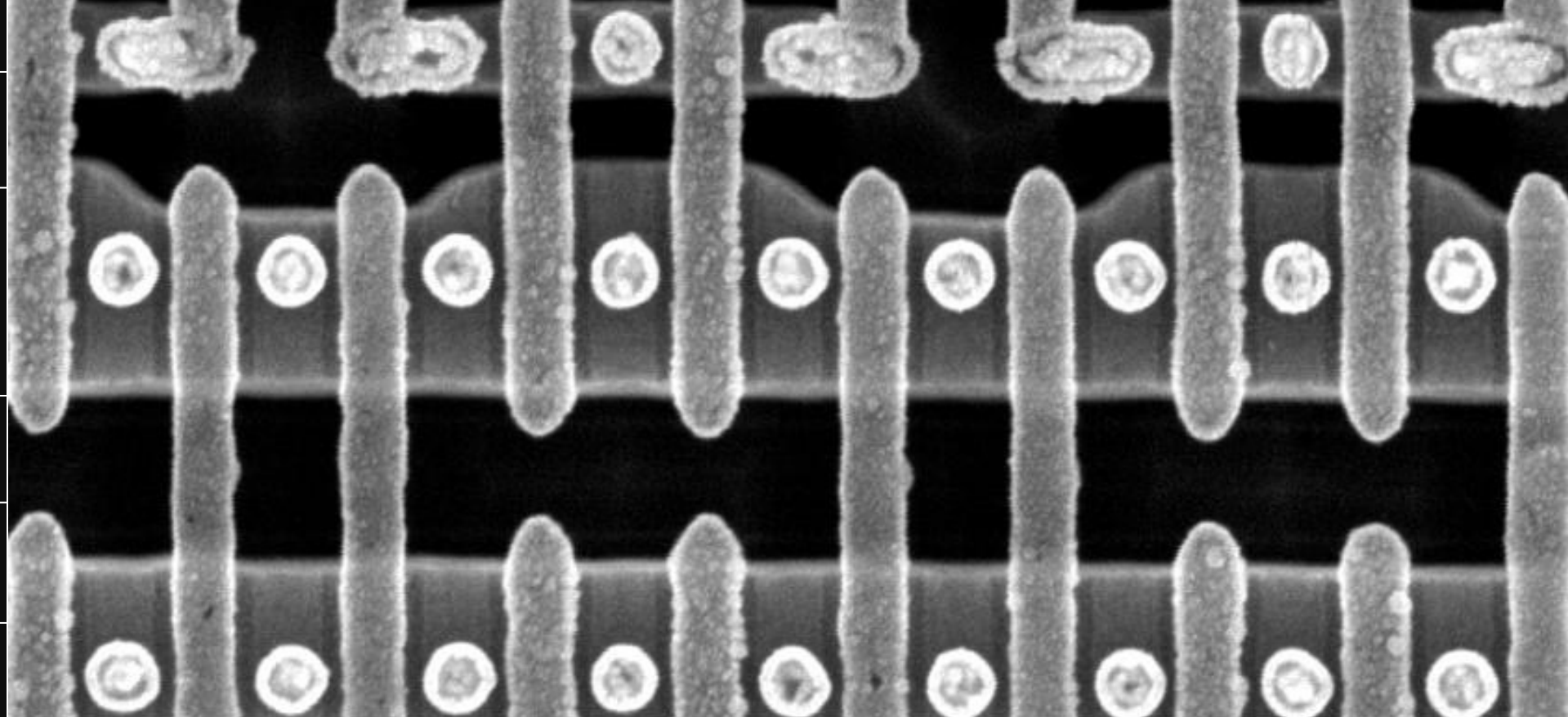


Understanding Extreme And Deep UV

Extreme Ultraviolet (EUV) and Deep Ultraviolet (DUV) are ultra-short wavelengths of light ranging from about 1–190 nm, with EUV centered near 13.5 nm.

Because these wavelengths are so small, they can resolve features far beyond the limits of visible light, making them essential for nanometer-scale imaging, metrology, and semiconductor manufacturing.

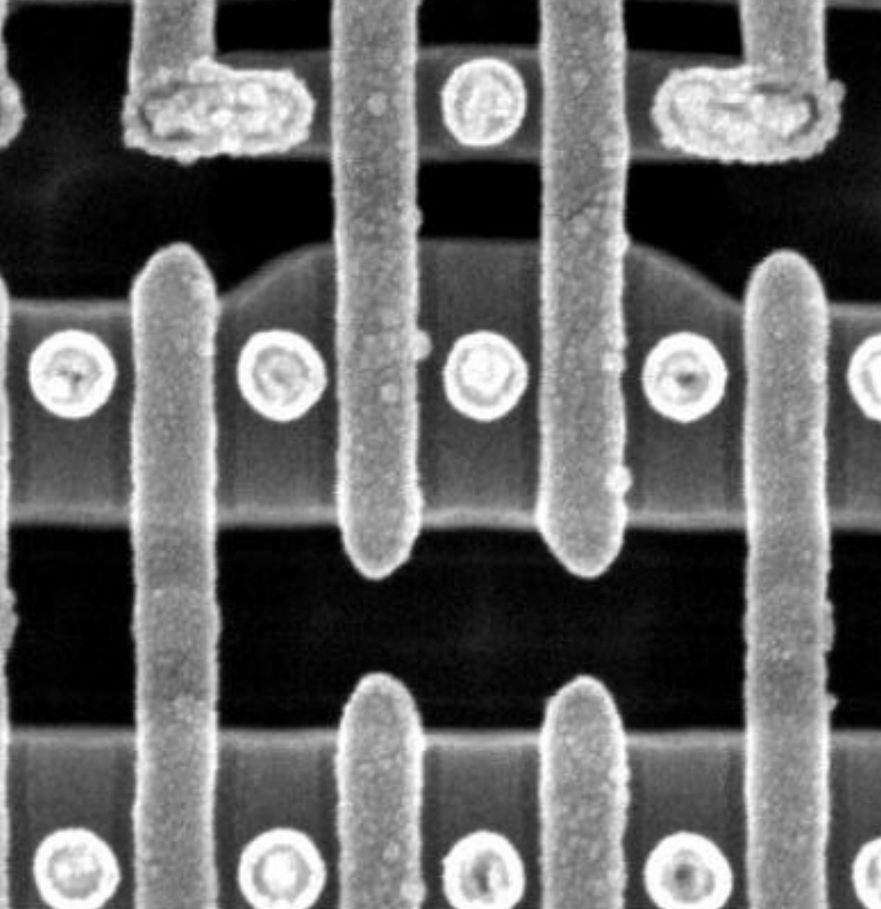




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Powering **Next-Generation** **Semiconductor** **Lithography**

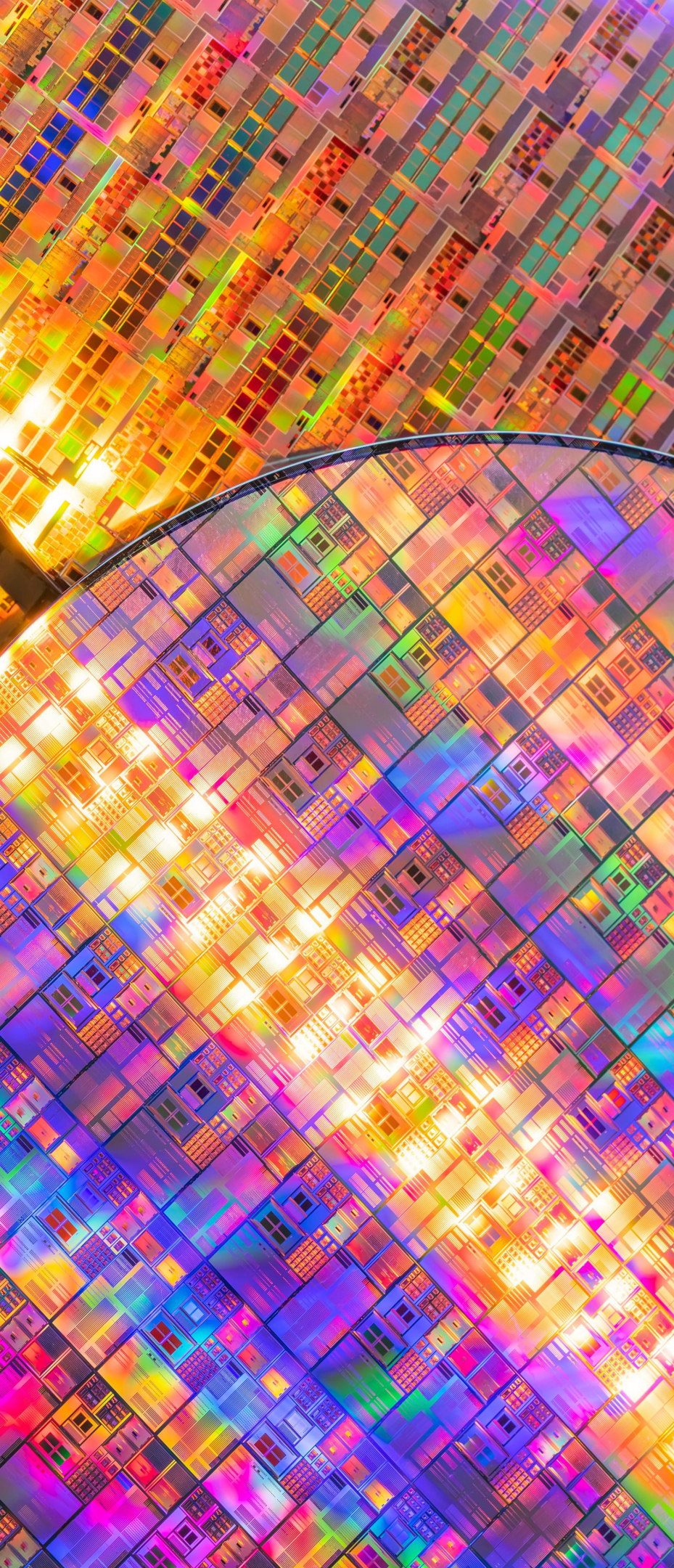
EUV operates at a much shorter wavelength, which makes it possible to print features only a few nanometers wide. With smaller features, manufacturers can increase transistor density, enabling faster processing and lower power consumption.



Essential for Soft X-Ray & Beamline Metrology

DUV and EUV detectors are essential tools for soft X-ray and beamline metrology, operating across wavelengths from 1–80 nm. They provide the stable, accurate power measurements needed to calibrate beamlines, verify source output, and ensure consistent performance in research facilities and semiconductor fabs. Reliable UV detection is critical for maintaining precise process control and high-quality experimental data.





Critical for CD-SEM & Process Control

Deep UV wavelengths play a key role in CD-SEM and wafer inspection tools by enabling the measurement of extremely small feature sizes on a chip. These high-resolution measurements help engineers verify that patterns are printed correctly and remain within tight tolerances. Accurate CD data is essential for process control, preventing defects, and maintaining strong manufacturing yield.

Built for Vacuum & High-Energy Environments

Deep UV detection is essential for wafer inspection and CD-SEM, allowing fabs to resolve the tiny features that define modern chips. By measuring critical dimensions with high repeatability, DUV tools verify layer alignment, pattern accuracy, and uniformity across the wafer, helping catch lithography or etch issues early and maintain high manufacturing yield.





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