

Picosun storms over the Asian ALD production market in several key application areas

ESPOO, Finland, 28th June, 2018 – Picosun Group, a leading supplier of advanced Atomic Layer Deposition (ALD) thin film coating technology, breaks through into industrial production in Asia in several new, key application areas.

The applications relate to display manufacturing and telecommunications, and a novel approach to use ALD to improve chip quality diagnostics.

The rapidly increasing popularity of smartwatches, wearable activity and health monitors, smartphones, and other small, portable electronic devices equipped with a screen puts a new kind of pressure to display manufacturers. A next generation of solutions needs to be developed, where the image quality, brightness, contrast, and resolution are not compromised even if the screen size gets miniaturized. Advanced LED, micro-LED, OLED, and TFT LCD (thin film transistor liquid crystal display) technologies answer this need but also create more challenges. One is passivation and encapsulation of the devices against ambient conditions, air and moisture. This is where ALD shows its strength. The superior conformality^(*) and pinhole-free nature of the ALD films, and the possibility to perform the film depositions at moderate temperatures make ALD the ideal technology for advanced display manufacturers.

The same qualities, conformality and uniformity of the coatings over the smallest nanoscale features, trenches and voids, advocate ALD's use in protection and passivation of semiconductor laser diodes which are widespread in modern telecommunications and data transmission based on fiber optics.

Picosun has also successfully commercialized an ALD-based method with which resolution and imaging properties of TEM (transmission electron microscopy) can be greatly improved. The main application for this method is chip failure analysis in high-volume manufacturing of various semiconductor components.

"We are happy to take our ALD technology to yet new application areas where it creates new, disruptive solutions to our customers' key challenges. In China, we have been the market leader in research ALD tools for a long time already, and now we are solidifying our position in the industrial market as well. China, Taiwan, and Singapore are key global hubs when it comes to semiconductor manufacturing. There is our largest industrial customer base and expansion potential," says Mr. Edwin Wu, CEO of Picosun Asia Pte. Ltd.

(*) In PICOSUN™ ALD systems, samples with ultra-high aspect ratios of over 1:2500 have been successfully coated.

Picosun provides the most advanced ALD thin film coating technology to enable the industrial leap into the future, with turn-key production solutions and unmatched expertise in the field. Today, PICOSUN™ ALD equipment are in daily manufacturing use in numerous major industries around the world. Picosun is based in Finland, with subsidiaries in Europe, North America, Singapore, Taiwan, China, and Japan, and a world-wide sales and support network. Visit www.picosun.com.

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