

ARRADIANCE® Introduces GEMStar XT-P™, the First Benchtop Thermal and Plasma-Enhanced Atomic Layer Deposition System (PEALD) for Research

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Arradiance, Inc. today announced their new GEMStar XT™ platform that builds on the successful GEMStar thermal ALD system and for the first time, integrates remote inductively coupled plasma (ICP) into an economical benchtop footprint.

GEMStar XT™ is a second generation thermal ALD platform, designed for the challenging research environment while remaining true to its heritage as the only benchtop ALD system on the market. The new GEMStar XT™ is fully upgradeable (at purchase or at a later time) to plasma ALD and includes features such as: 200°C precursor temperatures, 2 second cycle times, high throughput capability, and many new software safety and usability features. The GEMStar XT™ retains the hot-wall reactor and laminar flow showerhead design, ability to batch process multiple 200mm substrates, process with up to 8 precursors, up to 4 of which can be heated and a gas assist line for low vapor pressure precursors. GEMStar XT™ maintains its superior performance on high aspect-ratio 3D substrates and nano-powders.

GEMStar XT-P incorporates a fully functional, remote ICP plasma enhanced ALD capability which enables a broader range of precursor chemistries and ALD films at lower deposition temperatures. The 13.56 MHz plasma source is very compact and air cooled, operating at up to 300 Watts power with an automated matching network. GEMStar XT-P comes standard with three MFC controlled plasma gas lines and one MFC controlled carrier gas line for uniformly depositing even the most challenging oxides, nitrides and metals.

“The ALD research community will be well served by GEMStar XT’s outstanding thermal processing combined with remote plasma capability to create a new industry standard for ALD,” says Arradiance VP Sales and Marketing, Dr. Percy Chinoy. “The GEMStar XT-P has incorporated all we have learned about state-of-the-art thermal processing and added a compact, easy-to-use plasma source to deliver the most powerful and versatile system in the research market today.”

Arradiance functional nanofilm technology enhances the performance of advanced materials allowing researchers to develop groundbreaking new applications that will change the way we see our world.

Learn more at www.arradiance.com

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