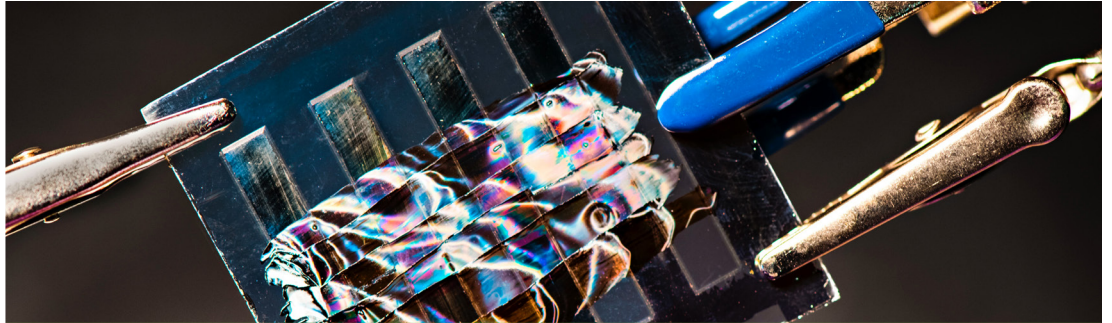


LOW PARTICULATE CHAMBER CLEANS ACHIEVED WITH THE MKS PARAGON® REMOTE PLASMA SOURCE



About the Customer

The customer, in operation for over two decades, is a leading Asian CVD (Chemical Vapor Deposition), Epitaxy, and MOCVD OEM. The company sells different configurations of CVD equipment, including LPCVD, PECVD, MOCVD, and ALD into the semiconductor, solar cell, display and OLED, and optoelectronics markets.



THE CHALLENGE

The customer developed a dry chamber cleaning technology that employs a remote plasma source (RPS) to supply the reactive chemical species that performs the chamber clean. For the past fifteen years they have used a competitive remote plasma source, but recently encountered problems in systems that employed the chamber clean. A key end user for amorphous carbon layer (ACL) CVD reported that their RPS cleaning tool was exhibiting excursions in the process particle counts and the problem was traced back to the RPS.



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THE SOLUTION

MKS proposed that conversion of the RPS from their existing model to the MKS Paragon solution would reliably solve the particle excursion issue being observed at the user site. The Paragon ensures low particulate operation through a number of innovations. It incorporates improved, faster ignition electronics and a plasma electrolytic oxidation (PEO) coating on the surfaces of the plasma block that significantly improves the performance of the earlier hard anodization surface treatments and extended block life, a critical factor in particle reductions. The Paragon's EtherCAT communications port allows end users to monitor key process parameters in real time for more efficient operation.

THE BENEFITS:

The customer and their end user witnessed firsthand how the Paragon solution dramatically reduced particle excursions during the chamber cleaning process. The Paragon clearly outperformed the customer's former RPS with its fast ignition electronics and superior plasma block surface treatment to reduce particle generation during plasma operation.

LEARN MORE

To learn more about how MKS Paragon RPS can help you improve productivity in your process operations, go to:
www.mksinst.com/c/remote-rf-plasma-sources

