Optimizing HiPIMS for Thin Film Deposition

Researchers from Germany are optimizing a thin film deposition technique that uses Plasmas by using high speed imaging.

The technique called HiPIMS requires precise control of the quality of the plasma in the coating chamber. Specifically, the group uses an ICCD with ns gate width to image regions of very pronounced ionization called spokes. They find that by monitoring the pattern of spokes the deposition process can be optimized.

Featured Paper/ Publication: Influence of spokes on the Ionized Metal Flux Fraction in chromium High Power Impulse Magnetron Sputtering, Journal of Physics D: Applied Physics, 2018

Reference Lab: Achim von Keudell, Ruhr-Universität Bochum, Germany

Products used: PI-MAX