

Inprentus Gains International Momentum in Spectroscopy Master Gratings

New orders from Australia and Asia highlight Inprentus' growing role in high-performance diffraction gratings for ICP-OES applications

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Inprentus, Inc., the world leader in the advanced manufacturing of precision

blazed diffraction gratings, announced growing international momentum in the [spectroscopy market](#) through the delivery of a master diffraction grating to a leading Australian spectroscopy company and a new order from an Asia-based company developing replicated gratings for

inductively coupled plasma optical emission spectroscopy, or ICP-OES.

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*Subha Kumar, Chief
Operating Officer*

The orders reflect increasing demand for Inprentus' expertise in master grating fabrication, particularly for spectroscopy applications that require extremely tight efficiency specifications and two-dimensional resolving power requirements. In these applications, master gratings are used to produce replicas, making the quality, precision, and consistency of the original master essential to the performance of the replicated optics. For spectroscopy applications like ICP-OES, the specifications are extremely tight.

ICP-OES instruments use diffraction gratings to separate and resolve emitted light for elemental analysis across scientific, industrial, and analytical applications. For spectroscopy companies and grating manufacturers, producing a master grating that meets demanding optical performance requirements remains a significant technical challenge.

Inprentus' proprietary manufacturing capabilities enable the Company to fabricate custom blazed diffraction gratings with the precision required for advanced spectroscopy systems. By delivering master gratings that support high-quality replication, Inprentus helps customers scale



production while maintaining the optical performance needed for demanding analytical instrumentation.

"Master grating features affect the performance of replicas made from it. The exceptionally high quality, ultra precision, and consistency of Inprentus' master gratings are crucial to the performance of the replicated optics", said Subha Kumar, Chief Operations Officer at Inprentus. "Customers rely on Inprentus for our exceptional masters across demanding spectroscopy applications."



Spectrometer Gratings Manufactured by Inprentus

These recent international orders further demonstrate Inprentus' expanding presence in global spectroscopy markets and reinforce the company's position as a trusted partner for advanced diffraction grating design, mastering, and manufacturing.

About Inprentus

Inprentus, located in Champaign, Illinois, USA, designs and manufactures high-performance, custom gratings-based solutions for advanced materials research utilized in synchrotron and free electron laser facilities globally. The Company specializes in products for soft x-ray synchrotron and FEL applications and OEM customers in EUV lithography and metrology, UVOIR spectroscopy, augmented reality (AR), and infrared sensors. Inprentus was founded in June 2012 by University of Illinois Urbana-Champaign physics professor Peter Abbamonte with an NSF SBIR (Phase 1 and 2) to commercialize an innovative, nano-scale contact-lithography technique. Inprentus operates a 12,000 sq. ft. manufacturing facility with a cleanroom for producing cutting-edge UHV-compatible optics, and is a critical supplier of blazed gratings to the global optical industry, with domestic customers including Lawrence Berkeley National Laboratory and NASA. The Company is dedicated to increasing high-tech jobs in the Midwest while securing the United States' technology leadership position.

Cynthia Ottemann

Inprentus, Inc.

+1 217-239-9862

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