

FOR IMMEDIATE RELEASE



For Further Information Contact:
Gene Choi
gene@covalentmetrology.com
408-498-4611

Covalent Metrology Acquires Advanced High Resolution XRD / XRR System from Rigaku Corporation

October 10th, 2018 Sunnyvale, CA – Covalent Metrology announced today that it has taken delivery of a top-of-the-line, fully-equipped Rigaku SmartLab X-ray Diffraction (XRD) system at its Silicon Valley facility. Launched by Rigaku in April 2018 and equipped with the latest Studio II software suite, this state-of-the-art XRD system generates the highest quality XRD and XRR information with unmatched resolution, measurement speed and flexibility (sample type and preferred orientation). Covalent’s SmartLab system is the first of its generation to be installed in the United States.

The SmartLab generates high quality data for traditional XRD analysis (determination of phases, crystal structure and orientation, lattice spacing, and other critical materials parameters). The Covalent system is equipped with the best available high resolution optics, and as such can investigate deviations from an ideal crystal that can be induced by defects, mosaicity or strain, for example. This opens access to analyses that are not feasible with traditional XRD systems installed at many industrial labs.

Dr. Colleen Frazer, Director of XRD/XRR Services, remarked, “Our new system is configured to include a high-flux rotating anode X-Ray source, multiple optical configurations (e.g., Parallel Beam, Bragg-Brentano, Grazing Incidence, In-Plane, and High Resolution), an elevated temperature stage and the HyPix-3000 Hybrid Pixel Array 0D/1D/2D Detector. This combination allows us to take measurements on a single sample using a wide variety of techniques, without the added time and costs of maintaining additional separate systems, and often without even having to remount the sample.”

“XRD and XRR are essential to many materials development projects,” commented Dr. Chris Moore, VP of Technology. “Having this powerful, flexible instrument in the hands of our world-class expert will provide compelling value to a range of customers. The system enhances our ability to produce extremely high quality customer data and analysis in our normal 24 to 48 hour turnaround time.”

Beyond high resolution optics, the Covalent Rigaku SmartLab also comes equipped with the heated stage from Anton Paar for advanced materials analysis up to 1100°C. Use of in-situ heating is increasingly popular in materials research across a range of industries where heat is used in the manufacturing process.

Covalent Metrology partners with clients to improve their overall metrology capabilities. In-house analytical services now include atomic force microscopy, nanomechanical film characterization, X-ray diffraction, X-ray reflectometry, spectral ellipsometry, various forms of profilometry and microscopy, and UV-VIS-near-infrared spectrophotometry. Its Metrology Partners unit offers a suite of services based on client-specific development objectives aimed at improving in-house and external metrology quality, speeds and cost. It is headquartered in the heart of Silicon Valley.

Silicon Valley location: **Covalent Metrology Services, Inc.**
 921 Thompson Pl
 Sunnyvale, CA 94086

For more information call (408) 498-4611 or visit the Company's website at <http://www.covalentmetrology.com>.