







Limoges, France – the 3rd of March 2015

ADVANCED R&D INKJET PRINTER WITH IN-LINE INTEGRATED PHOTONIC CURING

Ceradrop MGI Group announces CeraPrinter equipment placement with integrated NovaCentrix PulseForge photonic curing at The Laboratory of Physical and Analytical Electrochemistry LEPA at the École Polytechnique Fédérale de Lausanne EPFL in Switzerland.



"Ceradrop is very proud to strengthen its close partnership with EPFL, that remains a key player in Printed Electronics Research over the world and its choice of our state-of-the-art technology represents a real honor. Now the LEPA laboratory is equipped with the first worldwide unique Materials Deposition Inkjet Printer combining the high flexibility of our recognized printing tool and the powerful PulseForge photonic curing technology, that makes key technological advantages to reach significant progresses in several R&D fields" stated Nicolas BERNARDIN, Deputy Managing Director at CERADROP.

"The X-Serie CeraPrinter from Ceradrop is in our opinion currently the most advanced and powerful digital materials deposition system for our projects and featured by high accuracy and controllability thanks to its design and control software. Using three printheads and having the option to select between different post-processing technologies embedded into the printer, printing of a large variation of functional materials is possible. For instance, with the world wide first PulseForge 1300 photonic curing system from Novacentrix integrated into the CeraPrinter, we will make big progress in several research areas including energy storage and conversion (batteries and fuel cells) as well as analytical



chemistry (environmental sensing, proteomics and medical diagnostics)," said Dr. Andreas Lesch from LEPA.

"We are also using several self-made ink formulations and processing them with the extremely powerful PulseForge tool that offers great opportunities for our research. We are very thankful for the integration of the PulseForge 1300 into our CeraPrinter." added Dr. Lesch.

"We are pleased and proud to be given the opportunity to support EPFL's efforts with our technologies and expertise. The capabilities of the combined CeraDrop deposition and PulseForge photonic curing tools are simply unparalleled. The team at EPFL is in a unique position to utilize these capabilities towards innovation that will surely have resounding impact in the near future." said Stan Farnsworth, Vice President - Marketing at NovaCentrix.

"We are convinced by the market needs for such a hybrid platform delivered at EPFL, mixing InkJet printhead technologies, post-process curing technologies ... making the key of success. Targeting our customers' progress, we based our company philosophy on such close partnership with prestigious R&D centers, industrial end-users and technology providers worldwide." *concluded Nicolas BERNARDIN*.

Learn more about CERADROP Equipment range

About CERADROP MGI Group:

The MGI Group is composed of MGI Digital Graphic Technology, headquartered in Fresnes, France, CERADROP, located in Limoges, France and KÖRA-PACKMAT, located in Villingendorf, Germany. Founded in 1982, MGI Digital Graphic Technology designs, manufactures and markets a full and innovative range of award-winning digital presses and a complete line of versatile finishing solutions.

CERADROP designs and markets Materials Deposition Inkjet Printers exclusively for Printed Electronics Industry and Smart 3D Printing. Embedding all types of printheads as well as the latest generation of curing modules, CeraPrinter Series models present new opportunities for feasibility study and launch of new products onto the Printed Electronics market in the fields such as: flexible solar cells (OPV), OLED Displays, Smart Cards, Antennas, Smart Systems, Passive Components and others.

As the subsidiary of MGI Group focused on Printed Electronics and Smart 3D Printing, CERADROP can call up more than 60 engineers specialized in inkjet engine, mechanics, automation, software, chemistry, and ink management to supply the best materials deposition inkjet printing solution for advanced R&D or 24/7 high performance manufacturing including photonic curing and high throughput manufacturing capacity of several m²/min. Moreover, CERADROP is supported by the MGI Group network in 70 countries with 50 representatives. Achieving more than 60% of its turnover from export and providing a unique process support to its customers, CERADROP makes easier and more efficient use of Inkjet Printing technology for Printed Electronics and Smart 3D Printing worldwide.

We make Inkjet Printed Electronics and Smart 3D Printing easier worldwide.

About LEPA

The Laboratory of Physical and Analytical Electrochemistry (LEPA) at the Ècole Polytechnique Fédérale de Lausanne (EPFL) in Switzerland is headed by Prof. Hubert Girault and employs currently 11 post-doctoral researchers and 13 PhD students. The laboratory has been working in the fields of electrochemistry at soft interfaces and electroanalytical chemistry since 1992. Since 2000 the lab has also been very active in the field of bio-analytical chemistry in particular in immunoassays, electrophoresis, proteomics and electrostatic spray ionization mass spectrometry. The research group has also been working on redox flow batteries since 2010 and a large-scale pilot plant for indirect water electrolysis using redox flow batteries has been installed in 2013. For many of those running projects, LEPA utilizes the inkjet printing technology to fabricate for instance electrodes, sensor platforms, microfluidic chip devices and membrane electrode assemblies.

About Novacentrix

NovaCentrix® is a global leader in printed electronics processing equipment and materials. The patented PulseForge photonic curing tools are used when materials require high temperature drying, sintering, or annealing on substrates like polymers and paper. Metalon® and PChem water-based conductive inks combine high conductivity and economical pricing in silver and copper. The SimPulse® photonic curing simulation accurately models the thermal response of multi-layer materials to processing with PulseForge tools, saving time in the lab. Our experts accelerate product development and successfully implement full-scale manufacturing. Let us help you succeed.