IMB-CNM (CSIC) – the Barcelona Microelectronics Institute highlights its choice of Turnkey Materials Deposition Inkjet Printer – CeraPrinter X-Serie

“Nowadays having confirmed CERADROP expertise on providing Advanced CeraPrinter equipment with Inkjet technology for functional devices manufacturing worldwide, we are proud to strengthen our collaboration with IMB-CNM and their choice of our Turnkey CeraPrinter X-Serie! The Barcelona Microelectronics Institute works on exciting projects in the fields of micro and nanotechnologies and we are very much pleased to provide the actors with one of the CeraPrinter Series Models. The system provides numerous advantages for the users with its special configuration for dedicated applications, multi-material jetting capability, and of course, the possibility to fully accomplish the process.” – stated Nicolas BERNARDIN, Deputy Managing Director at CERADROP.

At our research institute, the emerging printed-electronics technologies and capabilities attracted several research groups dealing with a variety of projects with different goals and requirements: from simple conductive to single interdigitated capacitive/amperometric sensors, passive and active devices such as OTFTs or even interfacing hybrid circuits. Almost all these developments have been already done in the past at IMB-CNM facilities by means of photolithographic clean-room silicon based technologies; but, right now the coming low-cost flexible substrates based printed technologies opened a new universe of applications not feasible neither viable with rigid high-cost silicon technologies.

Within the above context we looked for unique equipment with enough versatility to cover the different expectations and being able to grow and adapt to further challenges. Early in 2016 we managed to incorporate the CERADROP X-Serie printer at our facilities as the core equipment of our new “Printed-µE Lab” with other complementary inkjet, screen-printing and curing tools. The X-Serie printer offers us a number of key functionalities and performances like the possibility to increase up-to three print-heads, the large range of ejectable inks and viscosities and finally the internal post-processing of printed patterns in order to fabricate all-inkjet OTFT devices and circuits; one of the main research lines at ICAS group.

“Traditionally our Integrated Circuits And Systems (ICAS) group at IMB-CNM has been developing electronic and microelectronic systems being specialized on low-power mixed signal IC design; but since some time ago we extended our activities from silicon to printed microelectronics with special interest on digital inkjet technologies. By acquiring CERADROP X-Serie engine we will be able to cope with a large range of different application domains in a versatile way and we expect to develop a complete printed-micro-electronics technology either full-inkjet or combined with photolithographic clean-room processes, but on flexible substrates to allow circuits’ development and its hybridization with other technologies.” – pointed by Dr. Lluís Terés, Head of ICAS group at IMB-CNM (CSIC).
ABOUT CERADROP, A MGI GROUP COMPANY

The MGI Group is composed of MGI Digital Technology, headquartered in Fresnes, France, CERADROP, located in Limoges, France and KÖRA-PACKMAT, located in Villingendorf, Germany. Founded in 1982, MGI Digital 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 Digital Printers exclusively for Printed Electronics Industry and Smart 3D Printing. Thanks to its modular-based scalable concept, CeraPrinter Series models present new opportunities for feasibility study and launch of new products into the Printed Electronics market. Combining several materials deposition technologies as well as the latest generation of curing modules, this equipment line permits to reach a wide range of application fields such as: membrane switch, antennas, sensors, passive components, interconnection, flexible solar cells (OPV), OLED Displays 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 digital printing solution from advanced R&D up to 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 75% of its turnover from export and providing a unique process support to its customers, CERADROP makes easier and more efficient use of Digital Printing technology for Printed Electronics and Smart 3D Printing worldwide.

ABOUT IMB-CNM (CSIC)

The Barcelona Microelectronics Institute (IMB-CNM) is the Barcelona site of the National Microelectronics Center (CNM). It belongs to the Spanish Research Council (Consejo Superior de Investigaciones Científicas - CSIC) since its foundation in 1985, together with the institutes in Madrid, (IMM-CNM) and Seville (IMSE-CNM).

The main activities of IMB-CNM are basic and applied research and development, education and training in micro and nanotechnologies, components and systems. Its mission is to improve the knowledge and to contribute to the implementation of solutions based in these technologies in new products, for solving societal and industrial challenges. The largest Spanish clean room for micro/nano technologies is managed by IMB-CNM with total clean area of 1,500 m², class room from 100 to 10,000, as well as different services (Mechanical, Electrical, Computing, Physical/Electrical characterization, Packaging and Maintenance) with about 50 people working on these facilities.

The institute has 10 research groups, with their own R&D labs, addressing activities on 6 main R&D lines: Bio/Chemical transducers, Integrated Circuits & Systems, Micro-nano-bio systems, Micro-nano technologies, Nanofabrication & nanostructures and Power devices & Systems.

Learn more about IMB-CNM at www.imb-cnm.csic.es/

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