

Rolic joins Holst Centre research on protective barriers for flexible electronics

Eindhoven (NL) and Allschwil (CH), September 4, 2012 – Rolic Technologies Ltd, Swiss material and technology supplier for LCD applications and optical security elements – and Holst Centre – an open-innovation initiative by imec (B) and TNO (NL) – announce their research partnership on protective moisture barriers for flexible electronics applications such as OLED and OPV. The materials developed by Rolic will be used to speed up the road towards commercialization of high-end flexible barriers and solutions for improved light out-coupling.

Devices, based on organic light emitting diodes (OLED), are very sensitive to moisture and oxygen. The cathode easily oxidizes and this oxidation leads to formation of black spots. Also the light-emitting material itself can degrade under the influence of oxygen. Both effects are undesired and necessitate the need for good encapsulation of the OLED. Today, OLED's (on glass) are typically encapsulated with a glass lid with a cavity containing getter material. Despite its effectiveness in terms of encapsulation, glass or metal lid packaging is expensive and prevents the possibility to fabricate thin, flexible devices.

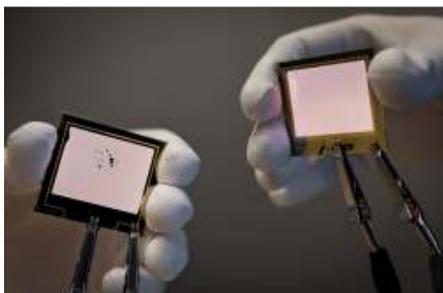
The Holst Centre research Program on Barriers and Electrodes has the objective to develop a low-cost thin film barrier which can be used on foil, as well as on rigid substrates. The program aims to develop this barrier fabrication technology for sheet-to-sheet (S2S) application as well as roll-to-roll (R2R). The program not only targets OLED lighting, but also other applications with comparable requirements, such as flexible OLED Displays and Organic Photovoltaics (OPV).

Rolic will play a crucial role in developing materials that will allow a fast road into the commercialization of new advanced flexible barriers. Rolic will focus on the development of the organic materials and coatings for the barrier stack and for light out-coupling solutions.

Ton van Mol, Program Manager Barriers and Electrodes at Holst Centre: "We are very excited to start working with Rolic. Over the past year's we have proven our barrier technology on lab-scale demonstrators. Rolic definitely has the expertise to take this technology to level that's mature enough for the market. During the partnership discussions, it quickly became clear that Rolic is extremely committed to jointly make this collaboration a success."

Bernhard Sailer, business development manager at ROLIC said: "Holst Centre is the ideal platform to connect research and development activities of various partners to bring a technology forward to industrialization. Together with the competence of our industrial partners and the clearly defined roadmap and goals in the project, Rolic will be able to develop tailored solutions for today's and tomorrow's flexible electronics applications.

Rolic will be using its know-how in formulation and application technologies as well as its proprietary Light Controlled Molecular Orientation (LCMO) technology to achieve these targets. We are very happy to join Holst Centre and we are looking forward to contribute our share to make high-end flexible barriers commercially available soon."



OLED lighting device showing black spots (left) and black-spot free thanks to thin-film protective barrier (right)

About Rolic

Rolic is a Swiss provider of optical alignment materials and LCMO (Light Controlled Molecular Orientation) technology. With the nano scale LCMO technology Rolic has set industrial standards in the LCD and security industry by providing unique optical effects. Rolic enables industrial applications for 3D displays, in cell alignment of liquid crystals for TV applications and optical security features for use in identification documents, currency notes and for brand protection. Rolic is located in Allschwil/Basel (Switzerland). More than 600 Rolic patents and patent applications provide a unique technology basis to the advantage of the customers and the end- users.

For further information: www.rolic.com

About Holst Centre

Holst Centre is an independent open-innovation R&D centre that develops generic technologies for wireless autonomous sensor technologies and for flexible electronics. A key feature of Holst Centre is its partnership model with industry and academia around shared roadmaps and programs. It is this kind of cross-fertilization that enables Holst Centre to tune its scientific strategy to industrial needs. Holst Centre was set up in 2005 by imec (Flanders, Belgium) and TNO (The Netherlands) with support from the Dutch Ministry of Economic Affairs and the Government of Flanders. It is named after Gilles Holst, a Dutch pioneer in Research and Development and first director of Philips Research.

Located on High Tech Campus Eindhoven, Holst Centre benefits from, and contributes to, the state-of-the-art on-site facilities. Holst Centre has over 170 research staff from about 28 nationalities and a commitment from more than 35 industrial partners.

Visit us at www.holstcentre.com

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