

Image Sensors World

News and discussions about image sensors

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Monday, July 31, 2017

University of Linz Lensless Camera

University of Linz, Austria, publishes a paper "Thin-film camera using luminescent concentrators and an optical Söller collimator" by Alexander Koppelhuber and Oliver Bimber.

"We discuss optical imaging capabilities and limitations, and present first prototypes and results. Modern 3D laser lithography and deep X-ray lithography support the manufacturing of extremely fine collimator structures that pave the way for flexible and scalable thin-film cameras that are far thinner than 1 mm (including optical imaging and color sensor layers)."

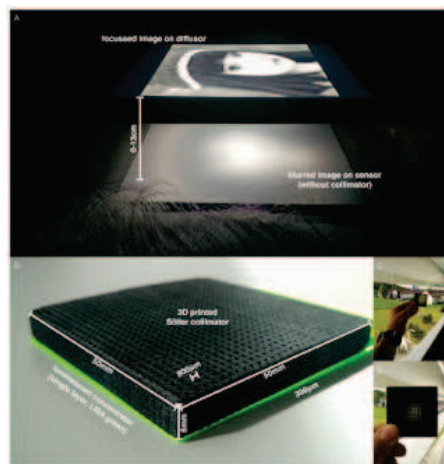


Fig. 5. Experimental setup and prototype: (A) The image focused on a diffuser (top) at distances between 0.2 m and 13 cm from the sensor (bottom) is to be reconstructed from the blurred image formed optically on the sensor surface (bottom). The example shows a distance of 1.3 cm. The sensor is covered by a second diffuser to make the blurred image formed on its surface visible. (B-D) 3D-printed Söller collimator prototype put on top of a single LC layer for monochrome imaging.

Thanks to TL for the link!

Posted by Vladimir Koifman at 22:46



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