

iMiD 2022

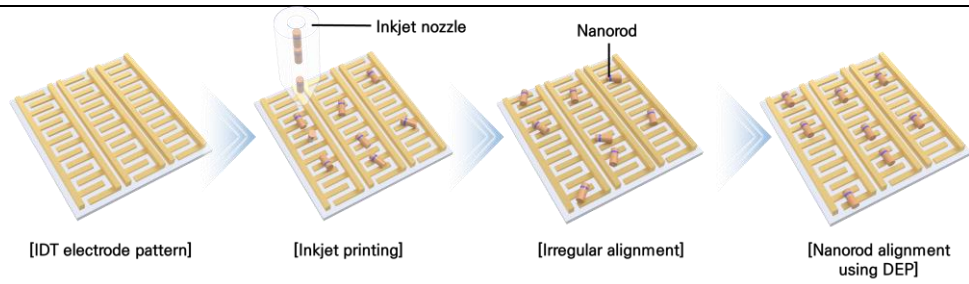
The 22nd International Meeting on Information Display
August 23-26, 2022 / BEXCO, BUSAN, KOREA

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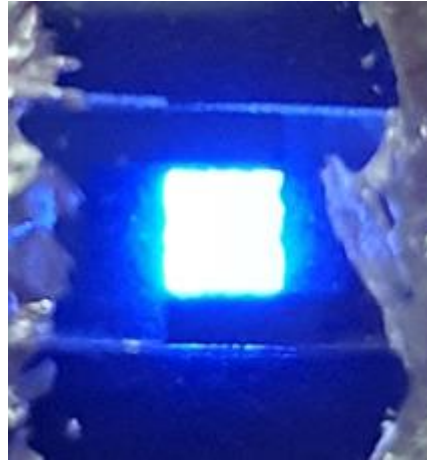
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Company Name	Laboratory for Optoelectronic Materials in Korea University	Company Logo
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Exhibitor Introduction	<p>The laboratory for opto-electronic materials (LOEM) in Korea University is engaged in advanced research in opto-electronic materials, with a special accent on GaN-based group III-nitride wide band gap compound semiconductors. Research projects include the fabrication of high-performance unprecedented opto-electronic devices such as UV-to-infrared full spectrum light emitting diodes (LEDs), visible-blind photodetectors (PDs), and tandem solar cells. We are working on InGaN/GaN nanorod alignment for nano LED display.</p>	
Exhibit Description	<p>We fabricated InGaN/GaN nanorod and removed from the sapphire substrate through a laser lift-off (LLO) process. The nanorods separated from the substrate are dispersed in acetone to be manufactured as ink. The manufactured ink-type nanorod LEDs were deposited on the interdigitated (IDT) patterned substrate by drop casting. The drop casted nanorod LEDs were aligned by the dielectrophoresis (DEP), where the dipole of nanorod is forced for aligned by the electric field generated when a voltage is applied to the IDT electrode pattern.</p>	

Exhibit
Product



[Schematic of nanorod LEDs alignment]



[Nanorod LEDs array using DEP alignment]