

세미나 초록

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발표 주제	Development of display pixel and device technology using solution-based processes
발표 내용	<p>In the display industry, inkjet printing is considered one of the representative technologies of solution-based processes, and has various advantages such as material efficiency, non-contact printing, and digital control. In particular, the quantum dot-organic light-emitting diode (QD-OLED) display developed by Samsung Display demonstrates that inkjet printing technology has established itself as an important technology in the display panel field, such as encapsulation structures and light-emitting pixels.</p> <p>In this presentation, we present the results of technology development for applying QD and perovskite light-emitting materials to display devices and panels using solution processing and printing processes. First, we describe a novel stacked QD-OLED manufacturing technology using inkjet printing. Specifically, we focus on the top-emitting OLED manufacturing process, the pixel-defining layer manufacturing process, and the QD inkjet printing process. Next, we introduce a technology for applying perovskite light-emitting materials and metal oxide complexes to OLED devices using solution processing.</p>