

## Flexible Displays and Roll-to-Roll Printing Techniques: Current Status and Future Prospects

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Recent advances in organic light-emitting devices enforce the notion that organic and hybrid based materials, and devices, are indeed key enablers for novel electronic and optoelectronic devices. The ability of these molecular and/or polymeric organic materials to be processed and fabricated on plastic substrates will be a key factor in the development, for example, of roll-up-displays, and disposable plastic electronics. Currently, processing and fabrication of organic-based electronic, optical, and optoelectronic materials and devices is carried, by-in-large, using traditional techniques such as spin coating [SC], dip coating, and vacuum thermal deposition. A tremendous advantage can be gained by incorporating printing techniques in the processing and fabrication of organic materials and devices. Printing methods such as ink jet, screen printing (SP), and Gravure printing can be useful in the fabrication of certain types of devices based on organic materials. We will discuss the latest developments in the above mentioned printing techniques; in particular, their use as it pertains to the rapidly growing area of organic optoelectronics and flexible displays.