

Patchable organic transistors using photo-crosslinking layer-by-layer assembly

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We suggest a versatile and simple approach to prepare highly flexible and patchable electronics based on LbL free-standing multilayers with a highly improved surface quality. A robust and efficient strategy for preparing a substrate for highly flexible and patchable electronics was developed by a photo-crosslinking LbL spin-coating process that allows various thickness to be achieved without any rinsing or intermediate purification steps. Subsequently, organic thin-film transistors (OTFTs) were fabricated onto the multilayer-coated ionic substrates. Our research is simpler, faster and more adaptable for the preparation of highly flexible and patchable electronics with controlled flexibility.