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Organic memristive device as transistor: Working principle and possible applications

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Abstract

© 2016 IEEE. We report results regarding the possibility of driving an organic memristive device as a transistor, so applying a modulatory gate voltage. Even if transistors and organic memristive device have different working principles, they share the same electrode structure (e.g. gate, source and drain electrode). For memristive standard operational mode, the gate electrode must be used just as reference electrode, biased to ground potential while, in this work, we explored the action of different bias on the output current between the drain and source electrodes.

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Keywords

organic electronics, Organic Memristor, Polyaniline, Transistor

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