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(71) Applicant *(for all designated States except US)*: **ADVANCED MICRO DEVICES, INC.** [US/US]; One AMD Place, Mail Stop 68, P.O. Box 3453, Sunnyvale, CA 94088-3453 (US).

(72) Inventors; and

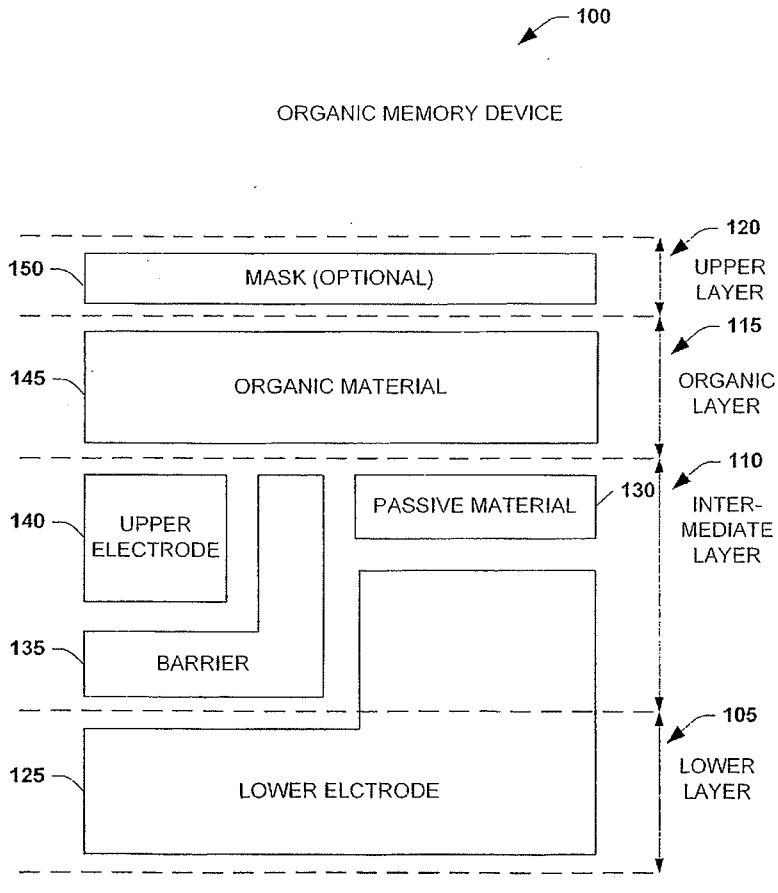
(75) Inventors/Applicants *(for US only)*: **TRIPSAS, Nicholas, H.** [US/US]; 6017 Crossmont Court, San Jose, CA 95120 (US). **BUYNOSKI, Matthew**; 2607 Emerson Street, Palo Alto, CA 94306 (US). **OKOROANYANWU, Uzodinma**; 1958 Rock Street #8, Mountain View, CA 94088 (US). **PANGRLE, Suzette, K.**; 21849 Lindy Lane, Cupertino, CA 95014 (US).

(74) Agent: **COLLOPY, Daniel, R.**; One AMD Place, Mail Stop 68, P.O. Box 3453, Sunnyvale, CA 94088-3453 (US).

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(54) Title: PLANAR POLYMER MEMORY DEVICE



(57) Abstract: The present invention provides a planar polymer memory device (100) that can operate as a non-volatile memory device. A planar polymer memory device (100) can be formed with two or more electrodes and an electrode extension associated with one electrode, wherein a selectively conductive medium and dielectric separate the electrodes. The method for forming a planar polymer memory device (100) comprises at least one of forming a first electrode (125) with an associated plug, forming a second electrode (140), forming a passive layer (130) over the extension, depositing an organic polymer and patterning the organic polymer (115). The method affords integration of a planar polymer memory device into a semiconductor fabrication process. A thin film diode (TFD) can further be employed with a planar polymer memory device (100) to facilitate programming. The TFD can be formed between the first electrode (125) and the selectively conductive medium or the second electrode (140) and the selectively conductive medium.

WO 2004/109803 A1



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