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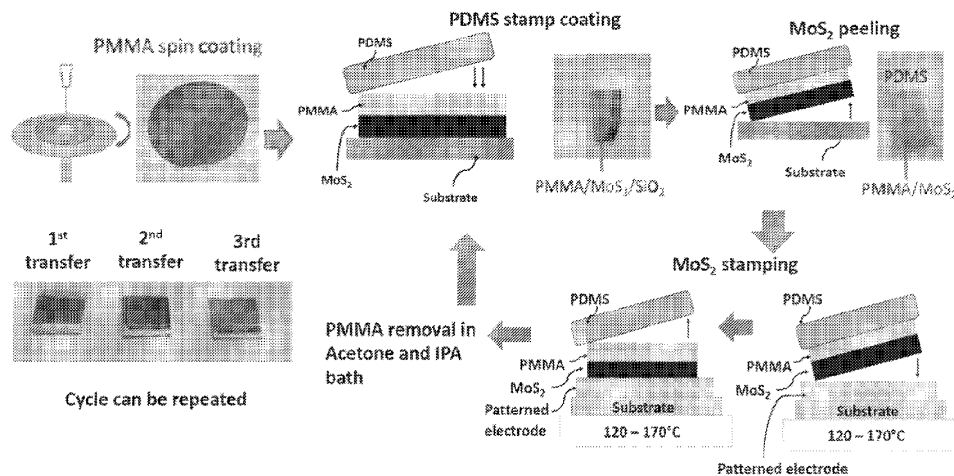
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(54) Title: A RESISTIVE MEMORY DEVICE STRUCTURE BASED ON STACKED LAYERS OF NANOCRYSTALLINE TMDCS

FIG. 3



(57) Abstract: Herein provided is a multilayered structure including one or more nanocrystalline layers each comprising a transition metal dichalcogenide, one or more substantially amorphous electrically insulating layers each comprising a transition metal oxide, wherein the transition metal oxide comprises a transition metal which is identical to the transition metal of the transition metal dichalcogenide, wherein the one or more nanocrystalline layers and the one or more substantially amorphous electrically insulating layers are formed in an alternating manner, and wherein each of the one or more nanocrystalline layers is formed adjacent to the substantially amorphous insulating layer. A resistive memory device comprising the multilayered structure and a process of fabricating the multilayered structure are also disclosed herein.

[Continued on next page]

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