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Sarigiannis et al.

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(54) **ATOMIC LAYER DEPOSITION METHODS**

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(58) **Field of Classification Search** 438/680; 427/585

See application file for complete search history.

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(57) **ABSTRACT**

The invention includes an atomic layer deposition method of forming a layer of a deposited composition on a substrate. The method includes positioning a semiconductor substrate within an atomic layer deposition chamber. On the substrate, an intermediate composition monolayer is formed, followed by a desired deposited composition from reaction with the intermediate composition, collectively from flowing multiple different composition deposition precursors to the substrate within the deposition chamber. A material adheres to a chamber internal component surface from such sequentially forming. After such sequentially forming, a reactive gas flows to the chamber which is different in composition from the multiple different deposition precursors and which is effective to react with such adhering material. After the reactive gas flowing, such sequentially forming is repeated. Further implementations are contemplated.

10 Claims, 2 Drawing Sheets