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(54) Title: METHOD FOR FORMING A TITANIUM-CONTAINING LAYER ON A SUBSTRATE USING AN ATOMIC LAYER DEPOSITION (ALD) PROCESS

(57) Abstract: A method for forming a titanium-containing layer on a substrate, the method comprising at least the steps of: a) providing a vapor comprising at least one precursor compound of the formula $Ti(Me_3Cp)(OR)_3$ (I), wherein R is selected in the group consisting in methyl, ethyl, isopropyl; or of the formula $Ti(R^1Cp)(OR^2)_3$ (II), wherein R^1 is selected from the group consisting in H, methyl, ethyl, isopropyl and R^2 is independently selected from the group consisting in methyl, ethyl, isopropyl or tert-butyl; b) reacting the vapor comprising the at least one compound of formula (I) or (II) with the substrate, according to an atomic layer deposition process, to form a layer of a tantalum-containing complex on at least one surface of said substrate.



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