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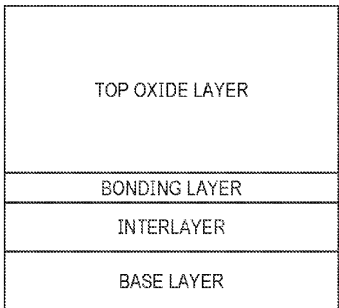
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(54) Title: ELECTROCHEMICAL METHOD OF FABRICATING AN ADHERENT AND STRUCTURALLY STABLE MULTILAYER ASSEMBLY



(57) Abstract: An electrochemical method of fabricating an adherent and structurally stable multilayer assembly includes forming a metallic interlayer on a base layer, electrochemically passivating some or all of the metallic interlayer, thereby forming a bonding layer comprising a binary oxide, and electrochemically growing a top oxide layer on the bonding layer. An adherent and structurally stable multilayer assembly includes a bonding layer comprising a binary oxide on a base layer, and a top oxide layer comprising a ternary oxide on the bonding layer. The bonding layer may be formed by electrochemical passivation of a metallic interlayer on the base layer.

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