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(54) Title: HOMOGENOUS SOLID SOLUTION ALLOYS FOR SPUTTER-DEPOSITED THIN FILMS

(57) Abstract: The invention includes a sputtering component comprising a sputtering surface. At least 99 atomic % of the sputtering surface consists of a single phase corresponding to a solid solution of two or more elements in elemental form. Additionally, an entire volume of the sputtering component can consist of the single phase corresponding to the solid solution of the two or more elements in elemental form. The invention encompasses methods of forming mixedmetal materials utilizing one or more of a reduction process, electrolysis process and iodide process.

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