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**Yamazaki**

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(54) **SPUTTERING TARGET AND METHOD FOR MANUFACTURING SEMICONDUCTOR DEVICE**

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CPC ..... **C23C 14/3414** (2013.01); **C23C 14/081** (2013.01); **C23C 14/086** (2013.01); **H01L 21/02565** (2013.01); **H01L 21/02631** (2013.01);

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See application file for complete search history.

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(57) **ABSTRACT**

An object is to provide a deposition technique for depositing an oxide semiconductor film. Another object is to provide a method for manufacturing a highly reliable semiconductor element using the oxide semiconductor film. A novel sputtering target obtained by removing an alkali metal, an alkaline earth metal, and hydrogen that are impurities in a sputtering target used for deposition is used, whereby an oxide semiconductor film containing a small amount of those impurities can be deposited.

**14 Claims, 3 Drawing Sheets**

