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(12) **United States Patent**
Lee

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(54) **THIN FILM RESISTOR**

(71) Applicant: **Ying-Chieh Lee, Kaohsiung (TW)**

(72) Inventor: **Ying-Chieh Lee, Kaohsiung (TW)**

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(52) **U.S. Cl.**
CPC **C22C 19/05** (2013.01); **C22C 30/00** (2013.01); **H01C 7/006** (2013.01)

(58) **Field of Classification Search**

CPC C22C 19/055; C22C 19/053; C22C 30/00; H01C 7/00

See application file for complete search history.

(56) **References Cited**

PUBLICATIONS

Wang, Jiangtao, and Sid Clouser. "Thin film embedded resistors." Proc. IPC Expo. 2001.*

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Primary Examiner — Jesse R Roe

(74) *Attorney, Agent, or Firm* — WPAT, PC

(57) **ABSTRACT**

A thin film resistor has a higher resistivity compared to that of a conventional thin film resistor. The thin film resistor includes 30-45 at % of nickel, 15-30 at % of chromium, 1-10 at % of manganese, 10-30 at % of yttrium and 1-20 at % of tantalum.

4 Claims, 1 Drawing Sheet