

Title (en)  
HEATING RESISTOR AND MANUFACTURING METHOD THEREOF

Title (de)  
HEIZWIDERSTAND UND HERSTELLUNGSVERFAHREN DAFÜR

Title (fr)  
RESISTANCE CHAUFFANTE ET SON PROCEDE DE FABRICATION

Publication  
**EP 1098770 A1 20010516 (EN)**

Application  
**EP 00922999 A 20000509**

Priority  

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Abstract (en)  
[origin: WO0069635A1] Forming a heating resistor which emits heat by electric current applied thereto, with non-metallic materials comprising at least tantalum (Ta), silicon (Si), oxygen (O), and nitrogen (N). In a case where such heating resistor has mole ratio Si/Ta of  $0.35 < \text{Si/Ta} < 0.80$ , oxygen mol% of 25 mol% to 45 mol%, and nitrogen mol% of 5 mol% to 25 mol%, the heating resistor shows resistivity equal to or greater than 4 m OMEGA cm, peak angle 2 theta of X-ray diffraction strength is equal to or smaller than 37.5 degrees, and has resistance over 100,000,000 pulses. The heating resistor having the above characteristics is suitable for a print head of a thermal ink-jet printer. Further, the heating resistor shows stable but high resistivity, after the heating resistor is annealed.

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