



US 20220369425A1

(19) **United States**(12) **Patent Application Publication**
AKAO et al.(10) **Pub. No.: US 2022/0369425 A1**(43) **Pub. Date: Nov. 17, 2022**(54) **CERAMIC HEATER AND METHOD OF
MANUFACTURING THE CERAMIC HEATER****Publication Classification**(71) Applicant: **NGK Insulators, Ltd.**, Nagoya-City
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(JP)(21) Appl. No.: **17/816,022**(22) Filed: **Jul. 29, 2022****Related U.S. Application Data**(63) Continuation of application No. PCT/JP2021/
006588, filed on Feb. 22, 2021.(30) **Foreign Application Priority Data**

Feb. 26, 2020 (JP) 2020-030724

(51) **Int. Cl.****H05B 3/14** (2006.01)**H05B 3/26** (2006.01)**H05B 3/74** (2006.01)(52) **U.S. Cl.**CPC **H05B 3/141** (2013.01); **H05B 3/265**
(2013.01); **H05B 3/748** (2013.01)

(57)

ABSTRACT

A method of manufacturing a ceramic heater, the method includes the steps of: (a) forming, on a surface of a first ceramic fired layer or an unfired layer, a resistance heating element or its precursor in a predetermined pattern; (b) forming a recessed groove along a longitudinal direction by radiating laser light to the resistance heating element or its precursor; (c) obtaining a layered body by disposing a second ceramic unfired layer on the surface of the first ceramic fired layer or the unfired layer; and (d) obtaining the ceramic heater in which the resistance heating element is embedded in a ceramic substrate by performing hot press firing on the layered body, wherein, in the step (b), the recessed groove is formed such that a side wall surface of the recessed groove is inclined relative to the surface of the first ceramic fired layer or the unfired layer.

