US010978226B2

(12) **United States Patent**
Ding et al.

(10) **Patent No.: US 10,978,226 B2**
(45) **Date of Patent: Apr. 13, 2021**

(54) **SINTERED ND—FE—B MAGNET COMPOSITION AND A PRODUCTION METHOD FOR THE SINTERED ND—FE—B MAGNET**

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(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 355 days.

(21) Appl. No.: **15/588,584**

(22) Filed: **May 5, 2017**

(65) **Prior Publication Data**

US 2017/0372823 A1 Dec. 28, 2017

(30) **Foreign Application Priority Data**

Jun. 22, 2016 (CN) 201610452048.5

(51) **Int. Cl.**
H01F 1/057 (2006.01)
B22F 9/04 (2006.01)
(Continued)

(52) **U.S. Cl.**
CPC ***H01F 1/0577*** (2013.01); ***B22D 11/001*** (2013.01); ***B22F 3/04*** (2013.01);
(Continued)

(58) **Field of Classification Search**
None
See application file for complete search history.

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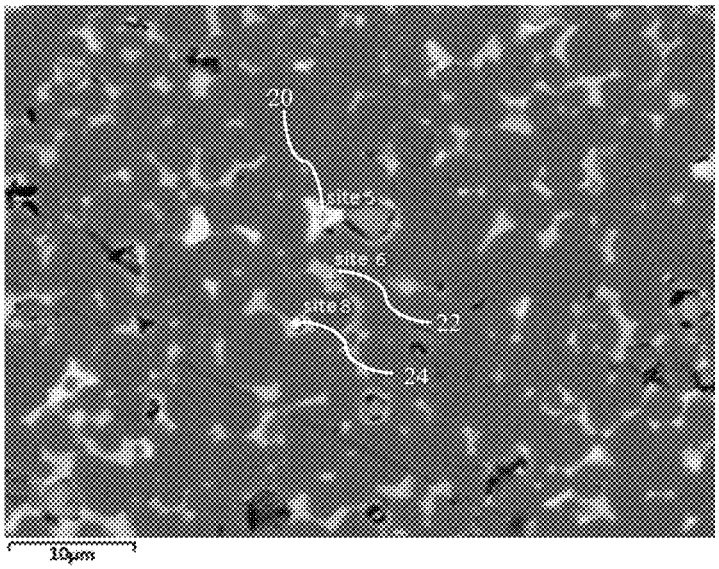
(57) **ABSTRACT**

A sintered Nd—Fe—B magnet comprising at least one light rare earth element having a weight content between 31 wt. % and 35 wt. %, at least one heavy rare earth element having a weight content of no more than 0.2 wt. %, B having a weight content between 0.95 wt. % and 1.2 wt. %, at least one additive including Ti and having a weight content between 1.31 wt. % and 7.2 wt. %, Fe as a balance, and impurities including C, O, and N. Ti has a weight content between 0.3 wt. % and 1 wt. % and forms a Titanium-Iron-Boron phase with Fe and Boron B and being present in the sintered Nd—Fe—B magnet between 0.86 vol. % and 2.85 vol. %. The C, O, and N satisfy 630 ppm≤1.2C+0.6O+N≤3680 ppm. The sintered Nd—Fe—B magnet has a squareness factor of at least 0.95.

7 Claims, 4 Drawing Sheets



(51) **Int. Cl.**

B22F 3/24	(2006.01)
H01F 41/02	(2006.01)
B22D 11/00	(2006.01)
B22F 3/04	(2006.01)
B22F 3/16	(2006.01)
B22F 9/02	(2006.01)
C21D 6/00	(2006.01)
C21D 9/00	(2006.01)
C22C 38/00	(2006.01)
C22C 38/06	(2006.01)
C22C 38/10	(2006.01)
C22C 38/14	(2006.01)
C22C 38/16	(2006.01)

(52) **U.S. Cl.**

CPC ***B22F 3/16*** (2013.01); ***B22F 3/24*** (2013.01); ***B22F 9/023*** (2013.01); ***B22F 9/04*** (2013.01); ***C21D 6/00*** (2013.01); ***C21D 9/0068*** (2013.01); ***C22C 38/002*** (2013.01); ***C22C 38/005*** (2013.01); ***C22C 38/06*** (2013.01); ***C22C 38/10*** (2013.01); ***C22C 38/14*** (2013.01); ***C22C 38/16*** (2013.01); ***H01F 41/0253*** (2013.01); *B22F 2003/248* (2013.01); *B22F 2009/042* (2013.01); *B22F 2009/044* (2013.01); *B22F 2201/20* (2013.01); *B22F 2202/05* (2013.01); *B22F 2301/355* (2013.01); *B22F 2998/10* (2013.01); *B22F 2999/00* (2013.01); *C22C 2202/02* (2013.01)

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