96
标题: Microwave dielectric properties of Ba(Zn1/3Ta2/3)O-3 ceramics doped with Nb2O5, MnO2 or V2O3
作者: Jinga, SI (Jinga, S. I.); Stoleriu, S (Stoleriu, S.); Busuioc, C (Busuioc, C.)
来源出版物: MATERIALS RESEARCH BULLETIN 卷: 47 期: 11 页: 3713-3718 DOI: 10.1016/j.materresbull.2012.06.035 出版年: NOV 2012
在 Web of Science 中的被引频次: 0
被引频次合计: 0
引用的参考文献数: 15
摘要: Dielectric materials with a high permittivity (epsilon(r)), a high quality factor (Q) and a low temperature coefficient of the resonant frequency (tau(f)) have become very important for the miniaturization of microwave devices, such as filters or antennas. In this work, Ba(Zn1/3Ta2/3)O-3 (BZT) ceramics doped with Nb2O5, MnO2 or V2O3 were obtained by the conventional solid-state reaction method. We report on the compositional, structural and morphological characterization of BZT resonators, as well as on the influence of the dopant (type and quantity) and sintering temperature on their dielectric properties. The best microwave dielectric properties (epsilon(r) similar to 28.4 and Q x f similar to 236 THz) were achieved in the case of 1% V2O3 doping and 1600 C sintering temperature. (c) 2012 Elsevier Ltd. All rights reserved.
入藏号: WOS:000311865200105
语种: English
文献类型: Article
作者关键词: Ceramics; Electronic materials; Dielectric properties; Microstructure
KeyWords Plus: TEMPERATURE; DOPANTS
地址: [Jinga, S. I.; Stoleriu, S.; Busuioc, C.] Univ Politehn Bucuresti, RO-011061 Bucharest, Romania
[Busuioc, C.] Natl Inst Mat Phys, RO-077125 Magurele, Romania
通讯作者地址: Busuioc, C (通讯作者),Univ Politehn Bucuresti, RO-011061 Bucharest, Romania.
电子邮件地址: jinga_cristina@yahoo.co.uk
出版商: PERGAMON-ELSEVIER SCIENCE LTD
出版商地址: THE BOULEVARD, LANGFORD LANE, KIDLINGTON, OXFORD OX5 1GB, ENGLAND
Web of Science 类别: Materials Science, Multidisciplinary
研究方向: Materials Science
IDS 号: 047TU
ISSN: 0025-5408
29 字符的来源出版物名称缩写: MATER RES BULL
ISO 来源出版物缩写: Mater. Res. Bull.
来源出版物页码计数: 6