

研究论文

M型钡铁氧体掺杂Co--Ti改性研究

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摘要: 通过Co--Ti掺杂手段对M型钡铁氧体的磁电性能进行了改性,确定了较佳的掺杂量及配方工艺。在制备Co--Ti取代的BaM铁氧体时,采用取代量为1.0的BaM的铁氧体材料,起始磁导率从1.5提高至15,矫顽力Hc达到最小,而且介电常数随着频率的升高而减小。可用于制作高频片式电感。Co--Ti的引入,使材料的烧结温度降至1000℃。

关键词: 非金属材料 M型钡铁氧体 溶胶--凝胶法 掺杂

Modification of M-type Ba-ferrite Through Doping Co-Ti

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Abstract: The EM performance of M-type Ba-ferrite is improved through the doping of Co-Ti, and the ideal doping amount is determined. The initial permeability of the material is increased from 1.5 to 15, Hc achieve minimum and the dielectric constant decrease with raise of the frequency when substitute amount of M-type Ba-ferrite is 1 at M-type Ba-ferrite doping Co-Ti. It can be used to fabricate the high frequency chip inductor. Introduction of Co-Ti is beneficial reducing the sintering temperature for the product. The sintering temperature of the material can be decreased to about 1000°C.

Keywords: non-metallic materials M-type Ba-ferrite sol-gel method doping

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