

袁钻如 南京 南京大学现代分析中心 210093

戴庆平 南京 京 南京大学现代分析中心 210093

摘要: 本文利用带有磁场的热重分析仪 (M-TGA) 对Fe₃B合金中加入元素Nd造成的合金相转变和各相含量等进行研究。研究发现, 在Fe₃B合金中加入适量的稀土元素Nd将导致合金相组成由四角Fe₃B (t-Fe₃B) 变为t-Fe₃B和亚稳相Nd₂Fe₂₃B₃。与常规热分析仪器DTA相比, 高灵敏的M-TGA可以更加清楚地观察到具有铁磁性转变的磁性材料相变过程

关键词: 热重分析, 相转变, 磁性材料

文章全文为pdf格式, 请下载至本机浏览。[[下载全文](#)]

The investigation of Phase transformation in magnetic materials by use of M TGA

210093

210093

Abstract: In this paper, thermal gravity analysis apparatus with a permanent magnet (M TGA) was employed to investigate the influence of Nd addition into Fe₃B alloys on the phase transformation and phase volume content. It has been found that Nd addition into Fe₃B alloys results in a variation of the phase constitution, i. e. single phase tetragonal Fe₃B (tFe₃B) changes into two phases of tFe₃B and metastable phase of Nd₂Fe₂₃B₃. In comparison with the general thermal analysis apparatuses such as differential thermal analysis, M TGA has an advantage over them on investigation of phase transformation for ferromagnetic materials.

Key words: Thermal gravity analysis, Phase transformation, Magnetic materials

【大 中 小】 [[关闭窗口](#)]