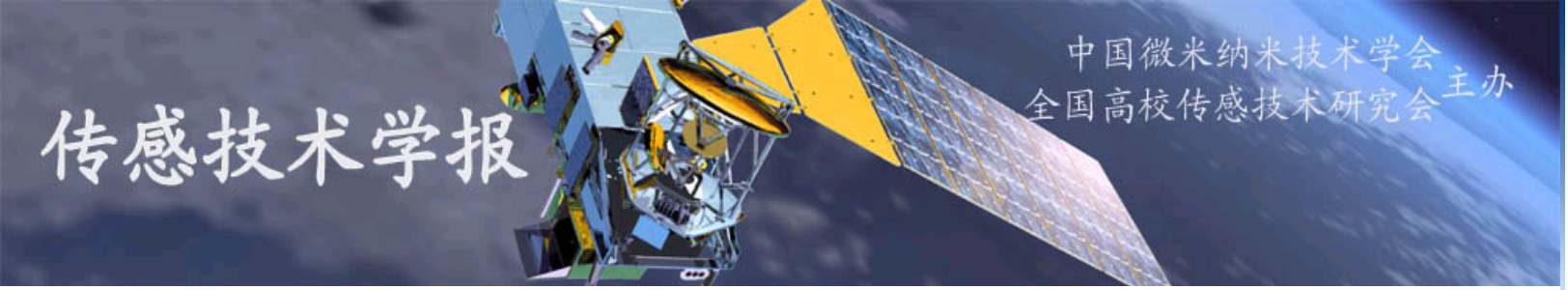

基于振动式发电机的微型驻极体研究

作　者：唐彬1，2，温中泉1，2，温志渝1，2*，董媛1，2

单　位：（1.重庆大学光电技术及系统教育部重点实验室，重庆 400044； 2.重庆大学微系统研究中心， 重庆 400044）

基金项目：

摘　要：

针对静电式微型振动式发电机的核心材料——微型化二氧化硅/氮化硅驻极体搭建出了合理的充电实验平台，对充电时的温度、湿度、充电电压、针尖电极的形状、充电时间等参数对驻极体充电后的性能的影响进行实验分析，对加工出的满足要求的微型化驻极体进行性能测试，得到驻极体表面电位大小和稳定性与充电过程的参数的一些联系，总结出了关于提高微型化驻极体表面电位大小以及稳定性的充电条件和方法。

关键词：MEMS，驻极体，振动，发电机

MICRO ELECTRET RESEARCH FOR VIBRATION MICRO GENERATOR

Author's Name: Tang Bin1，2， Wen Zhongquan1，2， Wen ZhiYu1，2*， Dong yuan1，2

Institution: (1 Key Laboratory of Optoelectronic Technology and Systems of the Education Ministry o f China, 2 Microsystem Research Center, Chongqing University, Chongqing 400044, China)

Abstract:

For the key material of micro vibrated generator------micro SiO2/Si3N4 electret, This paper provide a suitable charging stage. We have analyzed the influence of the charging temperature, humidity, charging voltage, figure of the needlepoint electrode, charging time, and so on. Also, after testing the capability of micro electret which meets the fabricated request, we have acquired relationship between electret surface voltage and parameters of charging, and between electret stability and parameters of charging. So, we summarize the charging condition and means in order to improve surface voltage and stability of the micro electret.

Keywords: MEMS, electret, vibration, generator

投稿时间：**2010-03-31**

查看pdf文件