

微光技术

GaAs光电阴极热清洗工艺研究

石峰

西安应用光学研究所, 西安 710065

收稿日期 修回日期 网络版发布日期 2007-1-27 接受日期

摘要

GaAs光电阴极在进行Cs-O激活前, 激活层表面必须达到原子级洁净。最常用且最有效的洁净方法是高温热清洗法。然而, 在热清洗过程中对处在真空系统中的光电阴极表面温度进行精确测量却是非常困难的。本文采用四极质谱仪对GaAs光电阴极激活前的热清洗过程进行分析, 确定了最佳的热清洗温度及热清洗工艺, 较好地解决了GaAs光电阴极激活前的热清洗工艺问题。

关键词 [四极质谱仪](#)、[光电阴极](#)、[热清洗](#)、[温度](#)

分类号 [TN304.2](#)、[TN305.97](#)

Research on Thermal cleaning Technique for GaAs Photocathode

SHI Feng

Xi'an Institute of Applied Optics, Xi'an 710065, China

Abstract

The surface of the active layer of GaAs photocathode must reach the atomically clean surface before Cs-O activeness. The most effective method, which is used quite often, is the high-temperature thermal cleaning one. It is very difficult to measure precisely the surface temperature of a photocathode in a vacuum system during the thermal cleaning. This paper discusses how to use a quadrupole mass spectroscope to analyze the whole process of thermal cleaning before the activeness of GaAs photocathode, thus the temperature and technique of the optimal thermal cleaning is determined. The problem for the thermal cleaning technique taken before GaAs photocathode activeness is well solved.

Key words [quadrupole mass spectroscope](#)、[photocathode](#)、[thermal cleaning](#)、[temperature](#)

DOI:

通讯作者 石峰

扩展功能
本文信息
▶ Supporting info
▶ PDF(171KB)
▶ HTML全文(0KB)
▶ 参考文献
服务与反馈
▶ 把本文推荐给朋友
▶ 加入我的书架
▶ 加入引用管理器
▶ 复制索引
▶ Email Alert
▶ 文章反馈
▶ 浏览反馈信息
相关信息
▶ 本期中 包含“四极质谱仪”的 相关文章
▶ 本文作者相关文章
· 石峰