

本期目录 | 下期目录 | 过刊浏览 | 高级检索
页] [关闭]

[打印本

遥感应用

利用PARASOL数据反演陆地气溶胶光学厚度

摘要:

研究了利用PARASOL多角度偏振数据反演我国陆地气溶胶, 假设单次散射在扣除大气分子和地表的偏振辐亮度后, 根据气溶胶光学性质查找表, 采用最佳匹配的方法, 选择最适合的气溶胶模式, 得到气溶胶光学厚度。并用AERONET的北京站和香河站的地基观测数据对结果进行了验证。结果表明, 多角度偏振方法反演陆地气溶胶精度稳定, 受季节和地表类型的影响很小, 但精度较低还需作进一步的改进。

关键词: 陆地气溶胶 多角度偏振 PARASOL

The Retrieval of AOD over Land Surfaces in China from PARASOL

Abstract:

In this paper the retrieval of aerosols over land surfaces in China from directional polarized data of PARASOL is developed. On the assumption of single scattering, after removing the polarized contribution of molecules and land surfaces from TOA (Top of Atmosphere) polarized reflectance of PARASOL, based on the LUT (Look Up Table) of aerosols, the AODs (Aerosol Optical Depth) are retrieved by best fitting method. The algorithm is validated with two sites (Beijing and Xianghe) of AERONET. The result shows that when retrieving AODs from directional polarized data, the influence of seasons and types of surfaces is little. But the accuracy is lower, so the method needs to be improved.

Keywords: aerosols over land surfaces directional polarization PARASOL

收稿日期 2008-12-29 修回日期 2009-04-02 网络版发布日期

DOI:

基金项目:

本工作得到863重大项目“多源卫星遥感大气污染综合监测技术(2006AA06A303)”资助。

通讯作者:

作者简介: 王中挺(1980~)|男|河南郑州人|工程师|目前主要从事大气气溶胶遥感方面的研究工作。

扩展功能

本文信息

- ▶ Supporting info
- ▶ PDF(960KB)
- ▶ [HTML全文]
- ▶ 参考文献[PDF]
- ▶ 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
- ▶ 引用本文
- ▶ Email Alert

本文关键词相关文章

- ▶ 陆地气溶胶
- ▶ 多角度偏振
- ▶ PARASOL

本文作者相关文章

- ▶ 王中挺
- ▶ 陈良富
- ▶ 李莘莘

PubMed

- ▶ Article by Wang, Z. T.
- ▶ Article by Chen, L. F.
- ▶ Article by Li, S. S.