

新型赤潮监测系统设计研究*

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摘要:

基于电化学原理设计了赤潮监测系统, 用于赤潮生消过程现场原位连续监测, 为建立赤潮预测方法和研究赤潮发生机理提供必要的资料基础。在分析赤潮成因的基础上, 选择温度、pH、H₂S、DO、盐度、浊度作为赤潮监测的主要环境因子。赤潮监测系统由传感器组/调理电路、数据采集/处理模块和GPRS终端组成, 文中给出了

关键词: 赤潮; 海洋环境; 监测; 数据采集

Design of Novel Red Tide Monitoring System

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Abstract:

Based on the theories of electrochemistry, a novel red tide monitoring system is developed. This instrument is used for continuously in-situ monitoring the course of red tide, and it can provide key data for both red tide prediction and research on the cause of red tide. Temperature, pH, H₂S, DO, salinity and nephelo are chosen as the main environment factors for red tide monitoring. The red tide monitoring system includes three parts: sensors and a conditioning circuit, data acquisition circuit and GPRS terminal. The design of software, hardware and experimental results are reported in this paper.

Keywords: red tide; ocean environment; in-situ monitoring; data acquisition system

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