



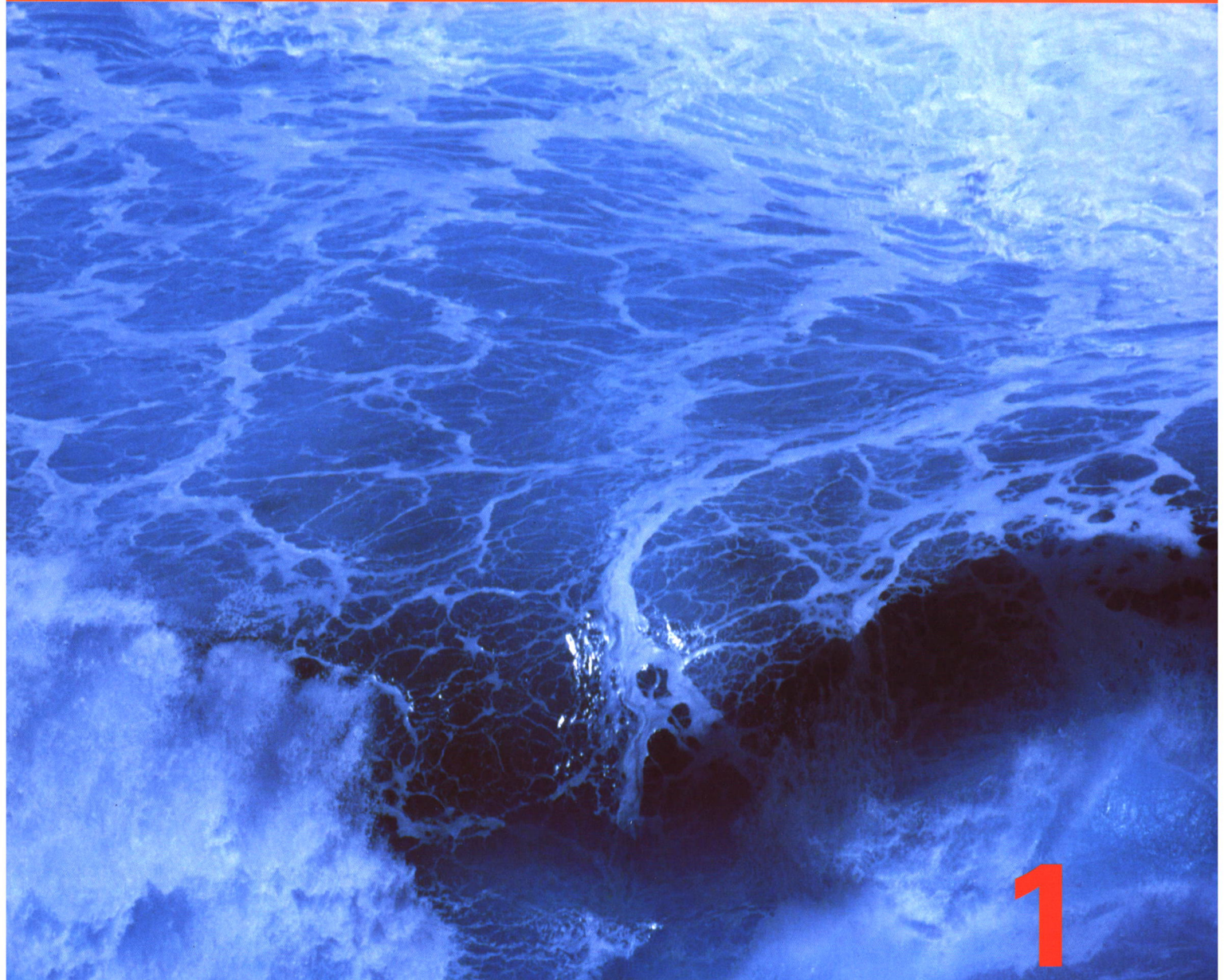
ISSN 1006-009X
CN 22-1135/TH

QK2224557

气象水文海洋仪器

主办单位：中国仪器仪表学会气象水文海洋仪器分会 长春气象仪器研究所

METEOROLOGICAL, HYDROLOGICAL AND MARINE INSTRUMENTS



1

2022
第39卷
(总141期)

ISSN 1006-009X



9 771006 009212

万方数据



气象水文海洋仪器

第 39 卷 第 1 期 (总第 141 期) 2022 年 3 月

目 次

研究与探讨

- 甘肃省碌曲气象站迁站前后气象资料对比分析 王雅萍, 韩海涛, 金红梅 (1)
- DSG4 型降水传感器平行观测数据对比分析 荀伟唯, 李秀英, 庄萌 (5)
- 基于毫米波云雷达的寒潮过程回波特征分析 胡树贞, 陶法, 张雪芬, 等(8)
- 基于单片机的大气电场仪系统设计研究 李力, 谭济民, 陈城, 等(12)
- 2021-03-31 婺源冰雹雷达回波特征分析 邱雯婷, 马中元, 彭维明, 等(15)
- 基于 LandSat 的宁波城市化进程对气温的影响评估 夏静雯, 高爱臻, 王晶, 等(20)
- 2020-03-21 武宁大冰雹天气过程分析 万红燕, 马中元, 陈鲍发, 等(24)
- 智慧城市微型自动气象站试验数据对比分析与评估 鲁峻麟, 黄惺惺, 顾桃峰, 等(28)
- 江西冰雹卫星云图特征分析 范小军, 马中元, 黄龙飞, 等(32)
- 基于 GDOP 的安徽省闪电定位网探测精度分析 张广元, 董德保, 宋佳军, 等(36)
- 丰城冰雹天气超级单体回波特征分析 饶云花, 马中元, 陈鲍发, 等(41)
- 基于机器学习的“蓝海”气象指数建立及其影响因素分析 蔡仕博, 王杰, 夏静雯, 等(44)
- 冰雹天气背景及回波系统演变 辛玮琦, 马中元, 陈鲍发, 等(48)
- 地市级移动校准系统计量比对实践与研究 韩玉婷, 宋媛, 汪鑫, 等(52)
- 湖南省永州市风向风速特征统计分析 刘沈, 付炜, 黄杰贞 (56)
- E601B 水面自动蒸发监测方法的分析与评价 王冬至, 罗清元, 赵彦增 (59)
- 利用降水现象仪进行降水量计算及准确性分析 姜明, 史静, 李宛桐, 等(62)
- 中山市 X 波段相控阵雷达选址分析 倾鹏程, 谢啸天, 汤沛 (67)
- 新型自动气象站气温多传感器对比试验中气温测量差异及原因分析 李晓波, 郭玉洁, 张长春, 等(70)
- DFC2 光电式数字日照计数据偏差问题研究 崔晓霞 (74)
- 闽西南连续两次降雹过程的闪电特征分析 何清芳, 江帆, 林梦凡 (77)

设计与应用

- 浙江省丽水市近 50 a 夜雨时空分布特征 姜燕敏, 白云霞, 李亚敏, 等(80)
- 基于温度传感器阵列的圆型热式测风仪设计 刘洋, 行鸿彦, 侯天浩 (83)
- 基于波浪滑翔器的能源供给装置设计 叶松, 吕胤焯, 甘宇平, 等(89)
- 肇庆市防雷信息管理平台的设计与应用 范梓豪, 杨楚雯 (92)
- 无人机移动观测系统设计与实现 王小兰, 郭然, 张雪芬, 等(95)
- 基于 Web 的邵阳天气雷达数据管理系统的设计与应用 于希, 赵晋, 肖丽, 等(98)
- 探空资料在大冰雹判别中的应用 黄钰, 张小娟 (101)
- 气象数据文件自动管理软件设计 许博, 孙桂玉, 褚春燕, 等(104)
- 基于流程图的维护维修微视频小程序在实际工作中的应用 唐坤, 李建宇, 韩啸, 等(106)
- Linux Shell 在同城用户服务中的应用 徐娟, 刘洋, 许竹霞, 等(109)

综述

- 潜浮标技术发展应用及展望 禹润田, 李昊, 冯师军, 等(112)
- 气象台站无人值守存在的安全隐患及对策 吴晓, 岳勇, 薛培珍, 等(117)
- 德鲁克技术在气象行业中的应用 (扉一)
- 德鲁克 PACE 压力控制器 (扉二)

Meteorological, Hydrological and Marine Instruments

Vol. 39 No. 1 (Sum 141) Mar. 2022

Contents

Research and Discussion

- Comparative analysis of meteorological data before and after relocation of Luqu meteorological station in Gansu
..... Wang Yaping, Han Haitao, Jin Hongmei (1)
- Comparative analysis of parallel observation data of DSG4 precipitation sensor Xun Weiwei, Li Xiuying, Zhuang Meng (5)
- Analysis of echo characteristics of cold wave process based on millimeter wave cloud radar
..... Hu Shuzhen, Tao Fa, Zhang Xuefen, et al. (8)
- Design and research of atmospheric electric field instrument system based on single chip microcomputer
..... Li Li, Tan Jimin, Chen Cheng, et al. (12)
- Analysis on echo characteristics of hail radar in Wuyuan on March 31, 2021
..... Qiu Wenting, Ma Zhongyuan, Peng Weiming, et al. (15)
- Impact assessment of urbanization process on temperature in Ningbo based on LandSat
..... Xia Jingwen, Gao Aizhen, Wang Jing, et al. (20)
- Analysis of hail weather process in Wuning on March 21, 2020 Wan Hongyan, Ma Zhongyuan, Chen Baofa, et al. (24)
- Comparative analysis and evaluation on test data of micro automatic weather station in smart city
..... Lu Junlin, Huang Xingxing, Gu Taofeng, et al. (28)
- Analysis on characteristics of hail satellite cloud image in Jiangxi Fan Xiaojun, Ma Zhongyuan, Huang Longfei, et al. (32)
- Analysis on detection accuracy of lightning location network in Anhui based on GDOP
..... Zhang Guangyuan, Dong Debao, Song Jiajun, et al. (36)
- Analysis of echo characteristics of super cell in Fengcheng hail weather Rao Yunhua, Ma Zhongyuan, Chen Baofa, et al. (41)
- Establishment of "blue ocean" meteorological index based on machine learning and its influencing factors analysis
..... Cai Shibo, Wang Jie, Xia Jingwen, et al. (44)
- Hail weather background and echo system evolution Xin Weiqi, Ma Zhongyuan, Chen Baofa, et al. (48)
- Practice and research on metrological comparison of municipal mobile calibration system
..... Han Yuting, Song Yuan, Wang Xin, et al. (52)
- Statistical analysis of wind direction and wind speed characteristics in Yongzhou city of Hunan province
..... Liu Shen, Fu Wei, Huang Jiezheng (56)
- Analysis and evaluation of E601B water surface automatic evaporation monitoring method
..... Wang Dongzhi, Luo Qingyuan, Zhao Yanzeng (59)
- Precipitation calculation and accurate analysis using precipitation phenomenon instrument
..... Jiang Ming, Shi Jing, Li Wantong, et al. (62)
- Analysis on site selection of X-band phased array radar in Zhongshan city Qing Pengcheng, Xie Xiaotian, Tang Pei (67)
- Analysis of temperature measurement difference and causes in temperature multi-sensor contrast test of new automatic weather station
..... Li Xiaobo, Guo Yujie, Zhang Changchun, et al. (70)
- Study on data deviation of DFC2 photoelectric digital sunshine meter Cui Xiaoxia (74)
- Analysis of lightning characteristics during two consecutive hailstorms in southwest Fujian
..... He Qingfang, Jiang Fan, Lin Mengfan (77)

Design and Application

- Temporal and spatial distribution characteristics of night precipitation in Lishui of Zhejiang in recent 50 years
..... Jiang Yanmin, Bai Yunxia, Li Yamin, et al. (80)
- Design of circular thermal anemometer based on temperature sensor array Liu Yang, Xing Hongyan, Hou Tianhao (83)
- Design of energy supply device based on wave glider Ye Song, Lv Yinchu, Gan Yuping, et al. (89)
- Design and application of Zhaoqing lightning protection information management platform Fan Zihao, Yang Chuwen (92)
- Design and implementation of UAV mobile observation system Wang Xiaolan, Guo Ran, Zhang Xuefen, et al. (95)
- Design and application of Shaoyang weather radar data management system based on Web Yu Xi, Zhao Jin, Xiao Li, et al. (98)
- Application of sounding data in the identification of large hail Huang Yu, Zhang Xiaojuan (101)
- Design of automatic management software for meteorological data file Xu Bo, Sun Guiyu, Chu Chunyan, et al. (104)
- Application of maintenance and repair micro-video mini programs based on flow chart in actual work
..... Tang Kun, Li Jianyu, Han Xiao, et al. (106)
- Application of Linux Shell in services for local users Xu Juan, Liu Yang, Xu Zhuxia, et al. (109)

Summary

- Development, application and prospect of submarine buoy technology Yu Runtian, Li Hao, Feng Shijun, et al. (112)
- Security risks and countermeasures of unattended meteorological stations Wu Xiao, Yue Yong, Xue Peizhen, et al. (117)

(英文编辑:王明蕊)

- ☆ 中国知网收录期刊
- ☆ 中国学术期刊（光盘版）收录期刊
- ☆ 中文科技期刊数据库收录期刊
- ☆ 万方数据库收录期刊
- ☆ 入选中国科协精品科技期刊示范项目

气象水文海洋仪器

Qixiang Shuiwen Haiyang Yiqi

季刊 1984年创刊
第39卷第1期（总141期）
2022年3月

Meteorological, Hydrological and Marine Instruments

Quarterly, started in 1984
Vol.39 No.1 (Sum 141)
Mar 2022

主管单位: 中国科学技术协会
主办单位: 中国仪器仪表学会
气象水文海洋仪器分会
长春气象仪器研究所
主 编: 王启万
主 任: 王明蕊
副主编: 吴 展 李 清 赵玉兰
出版发行: 《气象水文海洋仪器》编辑部
地 址: 吉林省长春市南湖科技开发区
雅安路1888号 130102
电 话: 13943195552
E-mail: qxswwhybjb@sina.com
网 址: www.qxswwhy.com
印 刷: 长春市现代印务有限公司

Superintended by: China Science Technology Association
Sponsored by: Meteorological, Hydrological and
Marine Instruments Branch of China
Instrumentation Institute,
Changchun Meteorological
Instrument Research Institute
Editor-in-Chief: Wang Qiwan
Director: Wang Mingrui
Associate Editor: Wu Zhan Li Qing Zhao Yulan
Published by: Editorial Board of Meteorological,
Hydrological and Marine Instruments
Add: No.1888 Ya'an Road, Beihu Science and Technology Development
District, Changchun City, Jilin Province 130102, China
Tel: 13943195552
E-mail: qxswwhybjb@sina.com
http: //www.qxswwhy.com
Printed by: Changchun Xiandai Printing Business
Limited Company

中国标准连续出版物号 ISSN1006-009X
CN22-1135/TH

邮发代码 12-395

定价 25.00元/期
100.00元/年