

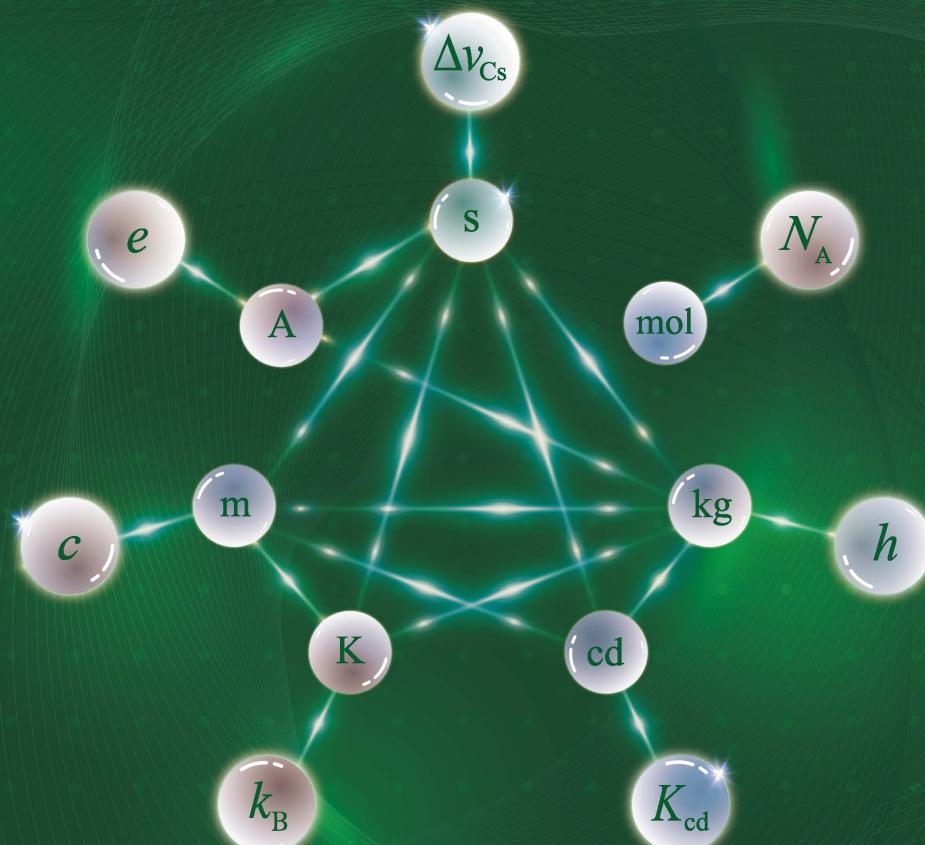
中文核心期刊
中国科技核心期刊
Scopus数据库收录期刊
CSCD收录期刊
WJCI报告收录期刊

ISSN 1000-1158
CN 11-1864/TB

计量学报

ACTA METROLOGICA SINICA

第44卷 第1期 2023 VOL. 44 No. 1



ISSN 1000-1158



中国计量测试学会

计量学报

JILIANG XUEBAO

第44卷 第1期 2023年1月

目 次

- 基于液体静力称量法的纯水密度测量 徐浩铭, 王金涛, 刘翔, 张竟月, 罗志勇, 顾英姿, 王思贤, 孙斌 (1)
- 绝对重力仪落体光心与质心空间距离测量 吕康, 余烨, 黄安贻, 田钰, 冯金扬, 王若琳, 叶子薇 (6)
- 基于时频增强的滚动轴承少样本故障诊断方法 胡向东, 梁川, 杨希 (12)
- 肺功能仪用定标筒容量校准方法 任立太, 郭立功, 包福兵, 王金涛, 暴雪松 (21)
- 动态环境下基于自适应步长 Informed-RRT^{*} 和人工势场法的机器人混合路径规划 郑维, 王昊, 王洪斌 (26)
- 基于音叉式 AFM 测量的软件控制研究 刘林伟, 高思田, 黄鹭, 王学影, 祝敏豪, 孙晓爽 (35)
- 基于 FPGA 的多通道动态光散射自相关器的研制 方钰琪, 黄鹭, 孙森, 高思田, 蔡晋辉 (41)
- 基于快速搜索球心的球度评定方法 盛东良, 郝娟, 盛庆元, 詹剑良 (49)
- 基于改进 Faster R-CNN 的水母检测与识别算法 高美静, 李时, 刘泽昊, 张博智, 白洋, 关宁, 王萍, 常秋悦 (54)
- 1.5 μm 光纤通信波段乙炔稳频激光技术研究进展 杨华朋, 王建波, 张宝武, 殷聪, 张明宇, 欧阳烨峰, 邹金澎 (62)
- 基于多元经验模态分解与卷积神经网络的气液两相流流型识别 张立峰, 王智 (73)
- 基于局部管网的天然气能量计量赋值算法 吕海舟, 杨敬东, 刘婉莹, 葛贤福 (80)
- 基于多源信息的多参数电磁层析成像方法研究 张文彪, 郑晓媛 (88)
- 基于改进 SR3 模型算法的 ECT 图像重建研究 马敏, 郭鑫 (95)
- 建筑构件隔声量智能实验室测量系统的应用研究 邵建文, 张志凯, 吴德林, 李娜, 吴键, 桑帅军, 裘剑敏 (103)
- 基于改进蝠鲼优化算法的光伏组件参数辨识模型 简献忠, 王鹏, 王如志 (109)
- 改进遗传-狼群对节点序寻优的贝叶斯网络结构算法 刘浩然, 苏昭玉, 张力悦, 王念太, 范瑞星 (120)
- 医用诊断半值层测量仪校准影响因素的研究 魏鹏, 王家伟, 李德红, 马伯轩, 郭彬 (127)
- 基于群论方法的苯分子振动模式研究 林俊, 马若梦, 马路遥, 林鸿 (132)
- 铁磁材料阿留麦尔居里温度测试研究 周瑾艳, 张桂军, 张英源, 花秀兵, 林铿, 黄彦捷, 陈玲 (138)
- 痕量一氧化氮标准物质的研制 胡树国, 张体强, 杨柳青, 杜秋芳, 王德发 (144)
- 单细胞测序技术的发展 张永卓, 傅博强, 牛春艳, 高运华, 王晶 (149)

ACTA METROLOGICA SINICA

(MONTHLY)

Vol. 44, No. 1, January 2023

CONTENTS

Density Measurement of Pure Water by Hydrostatic Weighing

..... XU Hao-ming, WANG Jin-tao, LIU Xiang, ZHANG Jing-yue, LUO Zhi-yong, GU Ying-zi, WANG Si-xian, SUN Bin (1)

Measurement of Spatial Distance between Falling Body's Optical Center and Mass center for Absolute Gravimeters

..... LÜ Kang, YU Ye, HUANG An-yi, Tian Yu, FENG Jin-yang, WANG Ruo-lin, YE Zi-wei (6)

A Method of Fault Diagnosis with Few Samples for Rolling Bearing Based on Time-Frequency Enhancement

..... HU Xiang-dong, LIANG Chuan, YANG Xi (12)

Method for Volume Calibration of Spirometer Syringes REN Li-tai, GUO Li-gong, BAO Fu-bing, WANG Jin-tao, BAO Xue-song (21)

Adaptive Step Size Informed-RRT* and Artificial Potential Field Algorithm for Hybrid Path Planning of Robot

..... ZHENG Wei, WANG Hao, WANG Hong-bin (26)

Study on Software Control of Atomic Force Microscope Measurement Based on Tuning Fork

..... LIU Lin-wei, GAO Si-tian, HUANG Lu, WANG Xue-ying, ZHU Min-hao, SUN Xiao-shuang (35)

Development of Multi-channel Dynamic Light Scattering Autocorrelator Based on FPGA

..... FANG Yu-qi, HUANG Lu, SUN Miao, GAO Si-tian, CAI Jin-hui (41)

Sphericity Evaluation Method Based on Quick Search of Spherical Center

..... SHENG Dong-liang, HAO Juan, SHENG Qing-yuan, ZHAN Jian-liang (49)

Jellyfish Detection and Recognition Algorithm Based on Improved Faster R-CNN

..... GAO Mei-jing, LI Shi-yu, LIU Ze-hao, ZHANG Bo-zhi, BAI Yang, GUAN Ning, WANG Ping, CHANG Qiu-yue (54)

Research Progress of Acetylene Frequency Stabilized Laser Technology in 1.5 μm Optical Fiber Communication Band

..... YANG Hua-peng, WANG Jian-bo, ZHANG Bao-wu, YING Cong, ZHANG Ming-yu, OUYANG Ye-feng, ZOU Jing-peng (62)

Flow Pattern Recognition Method of Gas-Liquid Two-Phase Flow Based on Multiple Empirical Mode Decomposition and

Convolution Neural Network ZHANG Li-feng, WANG Zhi (73)

Calculation and Assignment Algorithm of Natural Gas Energy Based on Local Pipe Network

..... LÜ Hai-zhou, YANG Jing-dong, LIU Wan-ying, GE Xian-fu (80)

Multi-parameter Electromagnetic Tomography Based on Multi-source Information ZHANG WEN-biao, ZHENG Xiao-yuan (88)

Research on ECT Image Reconstruction Based on Improved Algorithm of SR3 Model MA Min, GUO Xin (95)

Research on the Application of the Sound Insulation of Building Elements Intelligent Laboratory Measurement System

..... SHAO Jian-wen, ZHANG Zhi-kai, WU De-lin, LI Na, WU Jian, SANG Shuai-jun, QIU Jian-min (103)

Parameter Identification Model of Photovoltaic Module Based on Improved Manta Ray Optimization Algorithm

..... JIAN Xian-zhong, WANG Peng, WANG Ru-zhi (109)

Bayesian Network Structure Learning for Node Order Optimization Based on Improved Genetic-Wolf Pack Algorithm

..... LIU Hao-ran, SU Zhao-yu, ZHANG Li-yue, WANG Nian-tai, FAN Rui-xing (120)

Research on the Factors Influencing the Calibration of Medical Diagnostic Half-value Layer Instrument

..... WEI Peng, WANG Jia-wei, LI De-hong, MA Bo-xuan, GUO Bin (127)

The Group Theory Analysis of Benzene Vibration Mode LIN Jun, MA Ruo-meng, MA Lu-yao, LIN Hong (132)

Research on Measurement of Curie Temperature of Alumel Ferromagnetic Materials

..... ZHOU Jin-yan, ZHANG Gui-jun, ZHANG Ying-yuan, HUA Xiu-bing, LIN Keng, HUANG Yan-jie, CHEN Ling (138)

Development of Gas Reference Material of Trace Nitrogen Monoxide

..... HU Shu-guo, ZHANG Ti-qiang, YANG Liu-qing, DU Qiu-fang, WANG De-fa (144)

The Development of Single Cell Sequencing ZHANG Yong-zhuo, FU Bo-qiang, NIU Chun-yan, GAO Yun-hua, WANG Jing (149)