

中国科技核心期刊
中文核心期刊
中国科学引文数据库来源期刊

建筑科学®

BUILDING SCIENCE

2

2023

第39卷 第2期
VOL.39 NO.2

◆ 中华人民共和国住房和城乡建设部主管

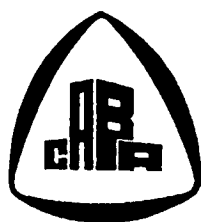
◆ 中国建筑科学研究院有限公司主办



可持续建筑 *Sustainable Building*



《中国科学引文数据库》来源期刊
中文核心期刊
中国科技核心期刊
《中国学术期刊(光盘版)》
检索与评价数据规范》执行优秀期刊



建筑科学
JIANZHU KEXUE
(月刊)
第39卷第2期(总第307期)
2023年2月出版
(1985年创刊)

主 办:中国建筑科学研究院有限公司
编 辑:《建筑科学》编辑部
地 址:北京北三环东路30号
邮 编:100013
电 话:010-64693291
电子邮箱(投稿邮箱):bjb365@126.com
主 编:黄世敏
副 主 编:徐 伟
“可持续建筑”编辑组

执行主编:俞英鹤
责任编辑:俞英鹤
编 辑:陈 辛

* * * * *
印 刷:北京时捷印刷有限公司
国内发行:全国各地邮局订阅
国外发行:中国国际图书贸易总公司
(北京399信箱)
邮发代号:2-381
国外代号:BM4129
国内统一刊号:CN11-1962/TU
国外标准刊号:ISSN1002-8528
零 售:《建筑科学》编辑部发行室
广告经营许可证:京朝工商广字第0209号(101)

目 次

“零碳建筑与社区”专栏

- 低碳、近零碳、零碳公共建筑碳排放控制指标研究 张时聪,王珂,徐伟(1)
低碳、近零碳、零碳居住建筑碳排放控制指标研究 张时聪,王珂,杨芯岩,徐伟(11)
近零能耗公共建筑示范工程全寿命周期碳排放研究
..... 杨芯岩,于震,张时聪,王睿,吕梦一,徐伟(20)
社区碳排放计算边界及技术指标分析研究 刘常平,张时聪,杨芯岩,徐伟(28)
基于关键因素敏感度分析的低碳社区碳排放控制指标研究
..... 张时聪,刘常平,吕燕捷,徐伟(36)
建筑碳排放标准化计算的电力碳排放因子取值研究 张时聪,王珂,徐伟(46)

计算分析

- 基于最短路径算法的近零能耗建筑被动式节能设计参数优化
..... 刘伟,于震,樊红卫,吴剑林(58)
太阳能建筑不同朝向墙体蓄热性能差异分析
..... 朱新荣,牛延延,冯伟建,杨柳,刘加平(67)
空调设计室外计算参数适用性分析与改进 杨琪,陈友明,方政诚,魏捷(74)
冷凝除湿机运行分析与调控策略研究——以西安地区为例
..... 贾钊颖,王赞社,魏形,黄国强,顾兆林(80)
基于热指标修正的供热系统调控能力与节能空间综合分析方法
..... 周颖,袁野,曹姗姗,陈天聪,陆嘉婧(89)
太阳能供暖多级水箱变容积蓄热系统影响因素研究
..... 姜晓歌,王馨,司鹏飞,戎向阳(97)

理论 & 实验研究

- 不同运行状态下光伏窗的太阳得热系数对比研究
..... 周浩,彭晋卿,王蒙,张福家,吴奔(105)
铜铝镓硒一体化光伏建筑发电性能分析 董力(114)
分体式空调办公建筑不同设定温度模式下的人体热适应
..... 石芳宁,董梦如,孙震,袁国栋,高敬远,王璐,闫海燕(120)
徽州民居自然通风潜力评估 黄志甲,徐萌,吴州琴,朱璐(130)
不同覆盖率的草地下垫面对热环境的影响研究
..... 王文新,刘一然,杨燕,康晓龙,白璐(135)
基于生物质燃料牧区燃池烟道性能优化研究
..... 白叶飞,高龙,唐汝宁,张嘉雪,康晓龙,张玉瑾(144)
空气净化器对室内细颗粒物(PM_{2.5})净化效果预测模型研究
..... 陈紫光,陈超,曹国庆,朱娟花,吴玉琴,陆禹名,戎戈,陈婧,王群芳(154)
一种基于深度学习的空调机房设备状态检测算法 贾乾然,许鹏,李俊杰(162)

论 坛

- 碳中和背景下中日建筑节能标准对比研究
..... 檀婧静,柳天祥,赵敬源,孙德宇,张婧(171)
基于数字孪生技术的城市微气候预测方法研究
..... 姚佳伟,张星翌,王健,王颖,黄辰宇,付斌,项星玮(183)
面向缺失数据基于SVR-SVDD的冷水机组故障检测方法
..... 张正智,周赛,王占伟,王林,谈莹莹,梁博阳(193)
生态韧性城市的演化与发展研究 周梓卉,李振兴,石羽(202)
基于雨洪韧性视角的规划与建筑设计探索——以江西陶瓷工艺美术职业技术学院为例
..... 王扬,许可,王静(207)
末端通断控制的热力站调控策略研究 马文菁,郭晓杰,曹姗姗,孙春华,齐承英(215)
BIM正向设计提效探究 李德贤,任晓东,朱力俊,陈洛克,吴鹏鹏(225)
我国绿色建筑和低碳建筑评价体系的发展比较及优化建议 王丞(235)
温湿度对建材甲醛散发的影响研究进展 梁卫辉(245)
夏秋时段公共场所室内微生物气溶胶污染及暴露评估 张金萍,冯东浩,左云峰(251)

[期刊基本参数] CN11-1962/TU * 1985 * b * 16 * 262 * zh * P * ¥15.00 * 8000 * 30 * 2023-02

BUILDING SCIENCE

(Monthly Journal)

No. 2 Vol. 39, February 2023

(Initial Issue in 1985)

Director: China Academy of Building
Research

Edited & Published: Editorial Committee of
BUILDING SCIENCE

Address: 30 Bei San Huan Dong Lu,
Beijing 100013, China

Tel: 86-10-64693291

E-mail: bjb365@126.com

Chief Editor: HUANG Shimin

Vice Chief Editor: XU Wei

"Sustainable Building" Editorial Team

Executive Chief Editor: YU Yinghe

Responsible Editor: YU Yinghe

Editor: CHEN Xin

* * * * *

Distributed in China:

Post Office Code Name 2-381

Distributed Abroad:

China International Book Trading
Corporation

(GUO JI SHU DIAN)

P.O.Box 399, Beijing, China

CONTENTS

Column of Zero-carbon Building and Community

- Research on Carbon Emission Control Index of Low-carbon, Nearly Zero-carbon and Zero-carbon Public Buildings ZHANG Shicong, WANG Ke, XU Wei (1)
- Research on Carbon Emission Control Index of Low-carbon, Nearly Zero-carbon and Zero-carbon Residential Buildings ZHANG Shicong, WANG Ke, YANG Xinyan, XU Wei (11)
- Research on Life Cycle Carbon Emissions of Nearly Zero-energy Public Buildings YANG Xinyan, YU Zhen, ZHANG Shicong, WANG Qian, LYU Mengyi, XU Wei (20)
- Research on Calculation Boundary and Technical Index of Community Carbon Emission LIU Changping, ZHANG Shicong, YANG Xinyan, XU Wei (28)
- Study on Control Index of Low Carbon Community Based on Emission Sensitivity Analysis of Key Factors ZHANG Shicong, LIU Changping, LYU Yanjie, XU Wei (36)
- Study on the Value of Electricity Emission Factor for Standardized Calculation of Building Carbon Emission ZHANG Shicong, WANG Ke, XU Wei (46)

Computational Analysis

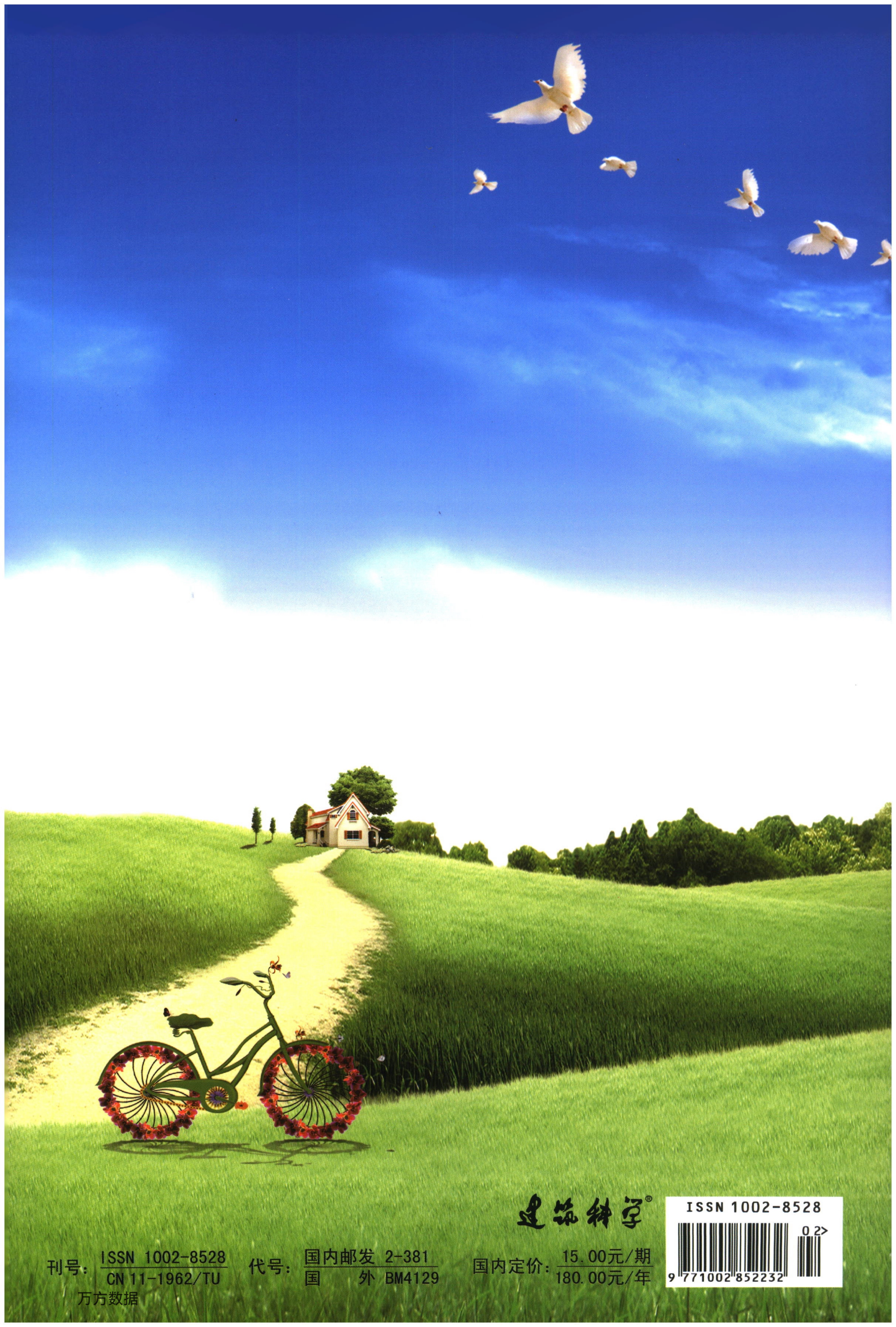
- Parameter Optimization for Passive Energy Saving Design of Nearly Zero Energy Buildings Using Shortest Path Algorithm LIU Wei, YU Zhen, GONG Hongwei, WU Jianlin (58)
- Difference Analysis of Heat Storage Performance of Walls with Different Orientations in Solar Buildings ZHU Xinrong, NIU Yanyan, FENG Weijian, YANG Liu, LIU Jiaping (67)
- Applicability Analysis and Improvement of Outdoor Design Parameters for Air-conditioning YANG Qi, CHEN Youming, FANG Zhengcheng, WEI Jie (74)
- Operation Analysis and Control Strategy Research of Condensing Dehumidifier—A Case of Xi' An Area JIA Zhaoying, WANG Zanshe, WEI Tong, HUANG Guoqiang, GU Zhaolin (80)
- Comprehensive Method for Analyzing Regulation Capacity and Energy-saving Space of Central Heating System Based on Index Correction ZHOU Ying, YUAN Ye, CAO Shanshan, CHEN Tiancong, SUI Jiajing (89)
- Study on Influencing Factors of Multi-stage Solar Heating Water Tank Heat Storage System with Variable Volume LOU Xiaoge, WANG Xin, SI Pengfei, RONG Xiangyang (97)

Theoretical & Experimental Study

- A Comparative Study on the Solar Heat Gain Coefficient of Photovoltaic Windows Under Different Operating Conditions ZHOU Hao, PENG Jinqing, WANG Meng, ZHANG Fujia, WU Ben (105)
- Analysis of Power Generation Performance of CIGS-BIPV DONG Li (114)
- Thermal Adaptation of Different Set Temperature Modes in Office Buildings with Split Air Conditioners SHI Fangning, DONG Mengru, SUN Zhen, YUAN Guodong, GAO Jingyuan, WANG Lu, YAN Haiyan (120)
- Natural Ventilation Potential Evaluation of Huizhou Traditional Dwellings HUANG Zhijia, XU Meng, WU Zhouqin, ZHU Lu (130)
- Study on the Effect of Grassland Underlay Surface with Different Coverage on Thermal Environment WANG Wenxin, LIU Yiran, YANG Yan, KANG Xiaolong, BAI Lu (135)
- Study on the Performance Optimization of Flue of Biomass Fuel Poo in Pastoral Area BAI Yefei, GAO Long, TANG Runing, ZHANG Jiaxue, KANG Xiaolong, ZHANG Yujin (144)
- Study on the Predicting Model of Purification Effect of Air Cleaners for Indoor PM_{2.5} CHEN Ziguang, CHEN Chao, CAO Guoqing, ZHU Juanhua, WU Yuqin, LU Yuming, RONG Ge, CHEN Jing, WANG Qunfang (154)
- A Status Detection Algorithm for Air Conditioning Equipment Based on Deep Learning JIA Qianran, XU Peng, LI Junjie (162)

Forum

- Comparative Research on Building Energy Efficiency Standards Between China and Japan Under the Background of Carbon Neutrality TAN Zijing, LIU Tianxiang, ZHAO Jingyuan, SUN Deyu, ZHANG Jing (171)
- Research on the Urban Microclimate Prediction Method Based on Digital Twin Technology YAO Jiawei, ZHANG Xingzhao, WANG Jian, WANG Ying, HUANG Chenyu, FU Bin, XIANG Xingwei (183)
- Fault Detection Based on SVR-SVDD for Chiller from the Perspective of Missing Data Imputation ZHANG Zhengzhi, ZHOU Sai, WANG Zhanwei, WANG Lin, TAN Yingying, LIANG Boyang (193)
- Study on the Evolution and Development of Ecologically Resilient Cities ZHOU Zihui, LI Zhenxing, SHI Yu (202)
- Study on Planning and Architecture Design from the Perspective of Flood Resilience: the Case of the Jiangxi Arts and Ceramics Technology Institute WANG Yang, XU Ke, WANG Jing (207)
- Research on Control Strategy of Heating Station with Terminal On-off Control MA Wenjing, GUO Xiaojie, CAO Shanshan, SUN Chunhua, QI Chengying (215)
- Research on Improving Efficiency of BIM Top-down Design LI Dexian, REN Xiaodong, ZHU Lijun, CHEN Luohe, WU Pengpeng (225)
- Comparison of the Development for Green Building and Low-carbon Building Evaluation Systems in China and Optimization Suggestions WANG Cheng (235)
- Research Progress of Influences of Temperature and Humidity on Formaldehyde Emissions from Building Materials LIANG Weihui (245)
- Indoor Microbial Aerosol Pollution and Exposure Assessment in Public Places in Summer and Autumn ZHANG Jinping, FENG Donghao, ZUO Yunfeng (251)



建筑科学®

ISSN 1002-8528

刊号: ISSN 1002-8528
CN 11-1962/TU

代号: 国内邮发 2-381
国外 BM4129

国内定价: 15.00元/期
180.00元/年



万方数据