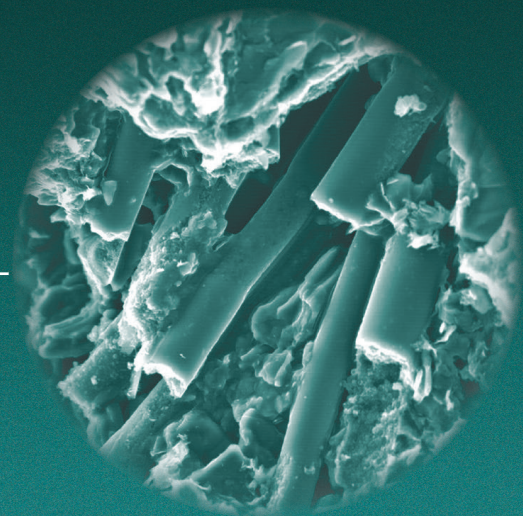




复合材料学报

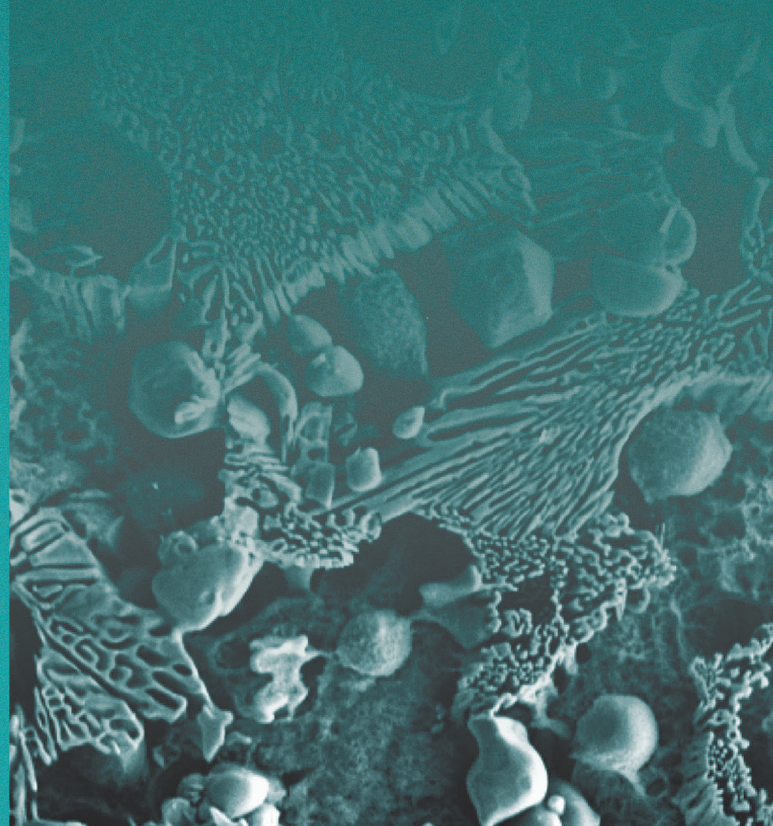


Acta Materialiae Compositae Sinica



2022. 11

北京航空航天大学 主办
中国复合材料学会



目 次

碳纤维增强树脂基复合材料及其拉索抗低速冲击性能综述	王安妮, 刘晓刚, 岳清瑞 (5049)
钢板屈服对 CFRP-钢界面粘接性能影响的试验研究	吴超, 余洋喆, 雷昕弋, 谭力豪 (5062)
配置新型封闭缠绕式 GFRP 箍筋混凝土梁的受剪性能试验	原野, 王震宇, 王代玉 (5074)
混杂纤维增强应变硬化水泥基复合材料抗弯冲击性能	霍彦霖, 孙华阳, 刘天安, 和怡馨, 陈智韬, 吕承博, 杨英姿 (5086)
玻璃纤维增强聚丙烯树脂复合材料索锚构件设计及力学性能	李承高, 张玉潭, 呼思乐, 吉启康, 郭正岳, 孙瑜泽, 咸贵军 (5098)
FRP 筋 UHPC 梁受弯承载力计算方法	薛文远, 胡翔, 薛伟辰 (5109)
海水浸泡与持续荷载耦合作用下 GFRP 筋的长期锚固长度	常宇飞, 王言磊, 王密锋, 周智 (5122)
张弦式预应力 CFRP 板加固钢-混凝土组合梁的抗弯试验	强旭红, 陈龙龙, 姜旭 (5135)
海洋大气环境对 CFRP-钢界面粘结性能的影响	余倩倩, 赵翊舟, 高瑞鑫 (5148)
再生砂超高性能混凝土力学性能	张智, 蔡自伟, 李凌志, 俞可权 (5158)
碳纤维织物增强水泥基复合材料拉拔过程力阻响应和等效分层破坏模型	陶冶王之, 张大伟, 陈冠浩 (5170)
纤维增强混凝土氯离子扩散系数的多尺度预测模型	童良玉, 刘清风 (5181)
CFRP 加固紧凑拉伸钢试件的疲劳试验研究	郑元鹏, 陈涛, 黄诚 (5192)
GFRP 开孔板连接件双剪试验及受剪承载力计算	薛伟辰, 严大威, 张士前, 王永生 (5206)
基于梁理论的 ECC 拉伸应变硬化与开裂行为的数值模拟	吴畅, 王欣汝, 许铭纹, 姚杰, 陈明糠, 金辰华 (5216)
疏水改性玄武岩纤维增强树脂复合材料筋的力学性能及耐久性	周傲, 李烁, 刘铁军, 邹笃建, 杨光 (5228)
螺旋缠绕挤压肋 FRP 筋与混凝土间的粘结性能	董恒磊, 李东风, 王代玉 (5239)
工程水泥基复合材料与发泡式聚苯乙烯保温板的界面粘结性能	李雨珊, 尹世平, 徐世焱, 侯向明, 王宇清, 李传秀 (5251)
风电叶片新型拉挤夹芯梁帽弯曲性能试验	赵东晖, 杨家琦, 孟鑫淼, 张东坡, 张展诚 (5264)
冻融循环对 FRP 片材-砌块界面粘结性能的影响	王作虎, 王江北, 申书洋, 陈礼 (5275)
冲击作用下 CFRP 筋粘结式锚固系统力学性能的试验研究	方志, 奉礼鑫, 方亚威, 王志伟, 蒋正文 (5287)
高温下 CFRP 筋及其粘结型锚固系统的力学性能	苏捷, 李权浩, 方志, 蒋正文, 方川, 王志伟 (5300)
高性能水泥基复合材料的压剪性能和破坏准则	谢发祥, 韩旭, 蔡定鹏, 陈徐东 (5311)
橡胶地聚物混凝土力学性能及阻尼特性试验研究	孙杰, 陈国珍, 吕康琪, 王安宁 (5321)

新型 FRP-UHPC 组合筋的横向剪切性能	叶玉仪, 周捷凯, 曾俊杰 (5333)
FRP 约束型钢混凝土柱-钢筋混凝土环梁节点震后轴压性能评估	田时雨, 任凤鸣, 伍峻磊, 莫金旭, 赖楚麟 (5343)
悬索桥轻质复材人行道板的研制及其受力性能	韩娟, 方海, 吴鹏 (5355)
聚乙烯纤维增强赤泥-碱矿渣复合材料的力学性能	阚黎黎, 朱嘉伦, 王飞, 李卓燃 (5367)
混杂纤维增强砂浆高温后单轴受压本构关系	李黎, 陶佳诚, 曹明莉, 李宗利 (5375)
钢-塑钢混杂纤维再生混凝土单轴压缩动态力学性能试验	冯俊杰, 尹冠生, 刘柱, 梁建红, 张云杰, 牛志强, 王鹏博 (5386)
钢管混凝土-FRP 管海水海砂混凝土组合柱轴压模型	缪坤廷, 魏洋, 朱超, 丁明珉, 郑开启 (5403)
风积沙与再生复合微粉对超高性能混凝土力学性能的影响	刘超, 林鑫, 刘化威, 胡天峰 (5415)
膨胀珍珠岩内养护混凝土抗压强度增长机制及数学模型的建立	刘玮, 张玉, 李珠, 赵福垚, 王廷俊 (5423)
落锤冲击下碳纤维增强混凝土梁的动态响应与损伤	马钢, 郭栋才, 李国强, 王卓然 (5436)
ECC 轴拉循环加载变形与疲劳寿命	霍海峰, 杨雅静, 李长辉, 刘汉磊, 陈宇, 吴堃 (5453)
纤维增强树脂复合材料-钢界面缺陷涡流热成像检测	邹星星, 马浩, 解社娟, 仝宗飞, 胡黎俐, 王辰昕, 王立彬 (5465)
偏高岭土-矿渣地聚物宏观性能试验及 Lasso 回归模型	钟卿瑜, 粟森, 彭晖 (5474)
有机染料辅助分散氧化石墨烯及其对水泥砂浆强度和耐久性的影响	盛况, 杨森, 毕俊峰, 袁小亚 (5486)
PVA-钢纤维对高强再生骨料混凝土梁抗弯性能的影响	牛海成, 高锦龙, 李博涵, 范玉辉, 王永贵 (5499)
固化与试验温度对环氧树脂及表层嵌贴 CFRP-混凝土界面粘结性能的影响	龚爽, 林福宽, 粟森, 张建仁, 彭晖 (5512)
锚固的双向纤维布约束加固钢筋混凝土柱抗震性能	高鹏, 袁大明, 王田宇, 王敬棠, 陈涛 (5525)
玄武岩纤维对 3D 打印水泥基材料可打印性的影响	赵宇, 武喜凯, 朱伶俐, 杨章, 王有凯 (5537)
荷载-温度耦合影响下混杂纤维/混凝土三轴压缩渗透行为	薛维培, 范红君, 高聪, 张瀚文, 申磊 (5548)
圆截面 CFRP-钢管混凝土在弯-扭荷载作用下的性能	王庆利, 彭宽, 邵永波 (5557)
循环荷载作用下钢纤维再生混凝土力学性能试验	陈宇良, 李浩, 叶培欢, 陈宗平, 徐鸿飞 (5574)
FRP-ECC 复合约束混凝土圆柱反复受压力学性能	惠迎新, 王文炜, 朱忠锋 (5586)
钢纤维沙漠砂混凝土梁受弯力学性能试验	秦拥军, 张亮亮, 渠长伟, 罗玲 (5599)
CFRP 布均匀约束煤圆柱轴压性能	李庆文, 胡露露, 曹行, 曾杏钢, 高森林, 祝青云, 刘艺伟, 禹萌萌, 黄筱 (5611)

纤维增强树脂复合材料布约束不同强度混凝土配筋柱抗震性能
..... 黄镜淳, 高鹏, 周安, 马翠玲, 姚军 (5625)

少层石墨烯对水泥净浆流动性能及力学性能的影响 何威, 许吉航, 焦志男 (5637)

基于倒角处拉应变的玄武岩纤维约束矩形截面混凝土轴压峰值应力计算模型
..... 刘小方, 段昕智, 欧阳利军 (5650)

期刊基本参数 :CN 11 - 1801/TB * 1984 * m * A4 * 616 * zh * P * ¥ 60.00 * 550 * 51 * 2022 - 11

编辑 : 孙 芳 李博涵 吕兰香

审校 : 吴红丽

CONTENTS

Low-velocity impact resistance of carbon fiber reinforced polymer composite and its cables: A review	WANG Anni, LIU Xiaogang, YUE Qingrui (5049)
Experimental study on the effect of steel yielding on the bond behavior between CFRP and steel plate	WU Chao, YU Yangzhe, LEI Xinyi, TAM Lik-ho (5062)
Experimental study on the shear performance of concrete beams reinforced with new type closed winding GFRP stirrups	YUAN Ye, WANG Zhenyu, WANG Daiyu (5074)
Flexural impact behavior of hybrid fiber-reinforced strain hardening cementitious composites	HUO Yanlin, SUN Huayang, LIU Tian'an, HE Yixin, CHEN Zhitao, LV Chengbo, YANG Yingzi (5086)
Design and mechanical properties of glass fiber reinforced polypropylene polymer composite cable-anchor component	LI Chenggao, ZHANG Yutan, HU Sile, JI Qikang, GUO Zhengyue, SUN Yuze, XIAN Guijun (5098)
Calculation method of flexural capacity of ultra-high performance concrete beams reinforced with FRP rebars	XUE Wenyuan, HU Xiang, XUE Weichen (5109)
Long-term development length of GFRP bar in concrete under coupling effect of seawater immersion and sustained load	CHANG Yufei, WANG Yanlei, WANG Mifeng, ZHOU Zhi (5122)
Flexure tests on steel-concrete composite beams strengthened with prestressed CFRP plates by string system	QIANG Xuhong, CHEN Longlong, JIANG Xu (5135)
Effect of marine atmosphere on the bond behaviour of CFRP-steel interface	YU Qianqian, ZHAO Yizhou, GAO Ruixin (5148)
Mechanical properties of recycled sand ultra-high performance concrete	ZHANG Zhi, CAI Ziwei, LI Lingzhi, YU Kequan (5158)
Piezoresistive response of carbon fibric reinforced cementitious matrix during pull-out test and the establishment of equivalent delamination failure model	TAOYE Wangzhi, ZHANG Dawei, CHEN Guanhao (5170)
Multi-scale prediction model of chloride diffusivity of fiber reinforced concrete	TONG Liangyu, LIU Qingfeng (5181)
Experimental study on fatigue behavior of compact-tension specimens strengthened by CFRP	ZHENG Yuanpeng, CHEN Tao, HUANG Cheng (5192)
Double shear tests and shear bearing capacity calculation of perforated GFRP ribs	XUE Weichen, YAN Dawei, ZHANG Shiqian, WANG Yongsheng (5206)
Numerical simulation of the tensile strain hardening and multiple cracking behavior of ECC based on beam theory	WU Chang, WANG Xinru, XU Mingwen, YAO Jie, CHEN Mingkang, JIN Chenhua (5216)
Mechanical properties and durability of hydrophobically modified basalt fiber reinforced polymer bars	ZHOU Ao, LI Shuo, LIU Tiejun, ZOU Dujian, YANG Guang (5228)
Bond behavior between helically and tightly wound FRP bars and concrete	DONG Henglei, LI Dongfeng, WANG Daiyu (5239)
Bonding properties of the interface between engineering cementitious composite and expanded polystyrene insulation board	LI Yushan, YIN Shipping, XU Shilang, HOU Xiangming, WANG Yuqing, LI Chuanxiu (5251)
Experimental study on flexural performance of novel pultruded sandwich spar caps of wind turbine blades	ZHAO Donghui, YANG Jiaqi, MENG Xinmiao, ZHANG Dongpo, ZHANG Zhancheng (5264)
Effect of freeze-thaw cycles on bond properties of FRP sheet-brick	WANG Zuohu, WANG Jiangbei, SHEN Shuyang, CHEN Li (5275)
Experimental study on mechanical properties of CFRP bar bond-type anchorage system under impact	FANG Zhi, FENG Lixin, FANG Yawei, WANG Zhiwei, JIANG Zhengwen (5287)
Mechanical properties of CFRP bar and bond-type anchorage system exposed to elevated temperature	SU Jie, LI Quanhao, FANG Zhi, JIANG Zhengwen, FANG Chuan, WANG Zhiwei (5300)

Compression-shear performance and failure criteria of the high-performance cement-based composite	XIE Faxiang, HAN Xu, CAI Dingpeng, CHEN Xudong (5311)
Experimental study on mechanical properties and damping characteristics of rubber geopolymer concrete	SUN Jie, CHEN Guozhen, LV Kangqi, WANG Anning (5321)
Transverse shear behaviour of novel FRP-UHPC hybrid bars	YE Yuyi, ZHOU Jiekai, ZENG Junjie (5333)
Evaluation of axial compressive performance of FRP-confined steel-reinforced concrete column-to-reinforced concrete ring beam joint with seismic damage	TIAN Shiyu, REN Fengming, WU Junlei, MO Jinxu, LAI Chulin (5343)
Development of light-weight composite pavement slab in suspension bridge and its mechanical properties	HAN Juan, FANG Hai, WU Peng (5355)
Mechanical properties of polyethylene fiber reinforced red mud-alkali slag composite	KAN Lili, ZHU Jialun, WANG Fei, LI Zhuoran (5367)
Constitutive relation of uniaxial compression of hybrid fiber reinforced mortar after high temperature	LI Li, TAO Jiacheng, CAO Mingli, LI Zongli (5375)
Experiment on dynamic mechanical properties of steel and macro-polypropylene hybrid fibers reinforced recycled aggregate concrete under uniaxial compression	FENG Junjie, YIN Guansheng, LIU Zhu, LIANG Jianhong, ZHANG Yunjie, NIU Zhiqiang, WANG Pengbo (5386)
Model for stress-strain curves of concrete filled steel tube-seawater and sea sand concrete filled FRP tube composite columns under axial load	MIAO Kunting, WEI Yang, ZHU Chao, DING Mingmin, ZHENG Kaiqi (5403)
Effect of aeolian sand and recycled composite micro-powder on mechanical properties of ultra-high performance concrete	LIU Chao, LIN Xin, LIU Huawei, HU Tianfeng (5415)
Growth mechanism of the compressive strength of expanded perlite internal curing concrete and establishment of mathematical model	LIU Wei, ZHANG Yu, LI Zhu, ZHAO Fuyao, WANG Tingjun (5423)
Dynamic response and damage analysis of carbon fiber reinforced concrete beams under drop hammer impact	MA Gang, GUO Dongcai, LI Guoqiang, WANG Zhuoran (5436)
Uniaxial cyclic loading deformation and fatigue life of ECC	HUO Haifeng, YANG Yajing, LI Changhui, LIU Hanlei, CHEN Yu, WU Kun (5453)
Nondestructive testing of fiber reinforced polymer-steel interfacial defects based on eddy current thermography	ZOU Xingxing, MA Hao, XIE Shejuan, TONG Zongfei, HU Lili, WANG Chenxin, WANG Libin (5465)
Experiment and Lasso regression model of the macroscopic performance of metakaolin-slag geopolymer paste	ZHONG Qingyu, SU Miao, PENG Hui (5474)
Effect of organic dye assisted dispersion of graphene oxide on mechanical properties and durability of cement mortar	SHENG Kuang, YANG Sen, BI Junfeng, YUAN Xiaoya (5486)
Effect of PVA-steel fiber on the flexural performance of high-strength recycled aggregate concrete beams	NIU Haicheng, GAO Jinlong, LI Bohan, FAN Yuhui, WANG Yonggui (5499)
Effect of curing and ambient temperature on properties of epoxy resin and bond behavior of near-surface-mounted CFRP-concrete interface	GONG Shuang, LIN Fukuan, SU Miao, ZHANG Jianren, PENG Hui (5512)
Seismic behaviors of reinforced concrete column confined by bidirectional fiber reinforced polymer composite with anchor	GAO Peng, YUAN Daming, WANG Tianyu, WANG Jingtang, CHEN Tao (5525)
Influence of basalt fiber on the printability of 3D printing cement-based materials	ZHAO Yu, WU Xikai, ZHU Lingli, YANG Zhang, WANG Youkai (5537)
Triaxial compression permeability behavior of hybrid fiber reinforced concrete under load-temperature coupling	XUE Weiwei, FAN Hongjun, GAO Cong, ZHANG Hanwen, SHEN Lei (5548)
Behavior of circular section concrete filled CFRP steel tubular under bending-torsion load	WANG Qingli, PENG Kuan, SHAO Yongbo (5557)
Experimental study on mechanical behavior of steel fiber recycled concrete under cyclic compression	CHEN Yuliang, LI Hao, YE Peihuan, CHEN Zongping, XU Hongfei (5574)

Cyclic compression behavior of FRP-ECC confined concrete cylinder	HUI Yingxin, WANG Wenwei, ZHU Zhongfeng (5586)
Flexural mechanical properties of steel fiber desert sand concrete beams	QIN Yongjun, ZHANG Liangliang, QU Changwei, LUO Ling (5599)
Axial compressive behavior of CFRP uniformly wrapped coal in circular columns	LI Qingwen, HU Lulu, CAO Hang, ZENG Xinggang, GAO Senlin, ZHU Qingyun, LIU Yiwei, YU Mengmeng, HUANG Xiao (5611)
Seismic performance of FRP-confined reinforced concrete columns with different concrete strength	HUANG Jingting, GAO Peng, ZHOU An, MA Cuiling, YAO Jun (5625)
Effect of few-layer graphene on the fluidity and mechanical properties of cement paste	HE Wei, XU Jihang, JIAO Zhinan (5637)
Axial ultimate compressive stress model of BFRP-confined rectangular concrete based on tensile strain at rounded corners	LIU Xiaofang, DUAN Xinzhi, OUYANG Lijun (5650)