



塑性工程学报

SUXING GONGCHENG XUEBAO

第 28 卷 第 9 期 2021 年 9 月 28 日

目 次

塑性成形技术与工艺

基于 SA508Gr. 4N 钢微宏观唯象模型的核电管板锻件 WHF 法拔长工艺优化 李风雷, 曾志钦, 汤传尧, 等 (1)

热冲压模具温度和贴合状态对 22MnB5 组织性能的影响 陈 扬, 孙正启, 张晓欣, 等 (11)

汽车外覆盖件冲击线缺陷评判指标及其影响规律 加尔肯白克·加沙来提, 温媛媛, 朱传敏 (19)

基于 GA - BP 的汽车行李箱盖内板冲压成形工艺优化 王康康, 陈泽中, 江楠森, 等 (28)

镁合金板材热振联合单点渐进成形实验与有限元建模 陈宇祥, 郑志洋, 廖 娟 (35)

MS1300 超高强度钢脉冲电流施加过程多场耦合仿真 张 建, 徐栋恺, 陈 鑫, 等 (42)

辊模参数对不锈钢极板辊压成形微流道端部的影响 赵富强, 高 帅, 赵小军, 等 (49)

管材轴压胀形仿真精度研究 阮 钟, 杨连发, 陈占斌 (57)

A286 薄壁大径双曲排气半管拼焊拉深工艺探索 白 颖, 钟李欣, 范子翠, 等 (65)

基于区域润滑的 Y 型管内高压成形壁厚分布优化 张 举, 徐雪峰, 肖 尧, 等 (73)

基于响应曲面法的 QCr0.5 铜合金热挤压冲头磨损数值分析 张帅帅, 张彦敏, 韩文奎, 等 (80)

7136 铝合金型材挤压过程动态再结晶演变模拟和实验研究 牛关梅, 李 伟, 吕 丹, 等 (86)

材料性能与变形理论

TC18 钛合金棒材锻造时拔长过程织构模拟 李志尚, 陈立全, 杨 平, 等 (94)

基于 ABAQUS 的汽车尾灯支架装配变形数值模拟 江楠森, 李屹峰, 罗 帅, 等 (103)

基于 Gissmo 材料失效准则的圆盘剪剪刀应力模拟 徐 宽, 夏明生, 刘靖宝, 等 (110)

准静态轴向压缩载荷下 Al - CFRP 混合薄壁管抗撞性优化	马其华, 董帆, 甘学辉 (117)
基于相组分的 Yoshida - Uemori 模型建立与验证	李春光, 刘常升, 鄂宏伟, 等 (129)
轻质高强类蜂窝夹层结构轴向压缩屈曲失效分析	李响, 宋小俊, 曹祥斌 (137)
AA6014 铝合金热变形行为及热加工图	荆丰伟, 武晓燕, 段晓鸽, 等 (144)
焊丝钢热变形本构模型研究	刘倩, 李佳凝, 田亚强, 等 (154)
Ti55531 钛合金本构方程及动态再结晶模型建立	郑宝星, 邓小虎, 武川 (161)
热处理对锻态 Ti - 44Al - 8Nb - 0.2W - 0.2B - 0.5Y 合金组织及性能的影响	姚昊明, 王琪斌, 王涛, 等 (170)
基于动态再结晶软化机制的 H90 黄铜高速摩擦磨损数值模拟	王猛, 王舜, 冯小亮, 等 (177)
空位与 P 原子对铁 $\Sigma 3$ (111) 晶界拉伸和剪切变形行为的影响	吴之博, 张兴红, 周冰娆, 等 (184)
纳米多晶 Cu - Ni 合金拉伸行为的分子动力学模拟	张国栋, 赵俊生, 高帅, 等 (194)
基于落锤压溃高强双相钢断裂失效模型	罗玉梅, 王博, 李伟 (200)
2024 铝合金薄壁板材淬火过程建模仿真	邓涛, 靳舜尧, 刘乐 (207)

成形装备与智能制造

二次冷轧过程工作辊温度场计算及影响因素	程志彦, 张亚震, 刘亚星, 等 (217)
---------------------------	------------------------

· 消息 ·

欢迎订阅《塑性工程学报》杂志	(72)
“第十七届全国塑性工程学术年会暨第九届全球华人塑性技术研讨会”会议通知 (第三轮)	(109)
《锻压技术》杂志敬告新老广告客户	(183)

(责任编辑: 周林 朱晓坤)

JOURNAL OF PLASTICITY ENGINEERING

(SUXING GONGCHENG XUEBAO)

Vol. 28 No. 9 Sep. 28 2021

Contents

Plasticity Forming Technology and Process

- Process optimization of WHF stretching of nuclear tube sheet forging based on micro and macro phenomenological model of SA508Gr. 4N steel LI Feng-lei, ZENG Zhi-qin, TANG Chuan-yao, et al (1)
- Influence of die temperature and bonding state for hot stamping on microstructure and properties of 22MnB5 CHEN Yang, SUN Zheng-qi, ZHANG Xiao-xin, et al (11)
- Defect evaluation index and influence law of impact line of automobile exterior panels JIAERKENBAIKE · Jiashalaiti, WEN Yuan-yuan, ZHU Chuan-min (19)
- Process optimization of stamping forming for inner panel of car trunk lid based on GA-BP WANG Kang-kang, CHEN Ze-zhong, JIANG Nan-sen, et al (28)
- Experiment and finite element modeling of heat-vibration assisted single point incremental forming of magnesium alloy sheet metal CHEN Yu-xiang, ZHENG Zhi-yang, LIAO Juan (35)
- Multi-field coupling simulation of MS1300 ultra-high strength steel in applying pulse current process ZHANG Jian, XU Dong-kai, CHEN Xin, et al (42)
- Influence of roll die parameters on microchannel end of stainless steel plate roll forming ZHAO Fu-qiang, GAO Shuai, ZHAO Xiao-jun, et al (49)
- Research on simulation accuracy of axial compression bulging for tube NGUYEN Chung, YANG Lian-fa, CHEN Zhan-bin (57)
- Exploration of tailor welding and deep drawing process of A286 thin-walled large diameter hyperbolic exhaust pipe BAI Ying, ZHONG Li-xin, FAN Zi-cui, et al (65)
- Optimization of wall thickness distribution of Y-shaped tube in hydroforming based on area lubrication ZHANG Ju, XU Xue-feng, XIAO Yao, et al (73)
- Numerical analysis of punch wear of QCr0.5 copper alloy in hot extrusion based on response surface method ZHANG Shuai-shuai, ZHANG Yan-min, HAN Wen-kui, et al (80)
- Simulation and experimental research on dynamic recrystallization evolution of 7136 aluminum alloy profile during extrusion NIU Guan-mei, LI Wei, LÜ Dan, et al (86)

Material Performance and Deformation Theory

- Simulation of texture in drawing of TC18 titanium alloy bars during forging LI Zhi-shang, CHEN Li-quan, YANG Ping, et al (94)

Numerical simulation of assembly deformation of automotive taillight bracket based on ABAQUS	JIANG Nan-sen, LI Yi-feng, LUO Shuai, et al (103)
Simulation of stress on shear blade of disc shear based on Gissmo material failure criterion	XU Kuan, XIA Ming-sheng, LIU Jing-bao, et al (110)
Crashworthiness optimization of Al-CFRP composite thin-walled tubes under quasi-static axial compression load	MA Qi-hua, DONG Fan, GAN Xue-hui (117)
Establishment and verification of Yoshida-Uemori model based on phase composition	LI Chun-guang, LIU Chang-sheng, E Hong-wei, et al (129)
Failure analysis of axial compression buckling of lightweight and high strength quasi-honeycomb sandwich structure	LI Xiang, SONG Xiao-jun, CAO Xiang-bin (137)
Hot deformation behavior and hot processing map of AA6014 aluminum alloy	JING Feng-wei, WU Xiao-yan, DUAN Xiao-ge, et al (144)
Study on constitutive models of hot deformation for welding wire steel	LIU Qian, LI Jia-ning, TIAN Ya-qiang, et al (154)
Establishment of constitutive equation and dynamic recrystallization model for Ti55531 titanium alloy	ZHENG Bao-xing, DENG Xiao-hu, WU Chuan (161)
Effect of heat treatment on microstructure and properties of forged Ti-44Al-8Nb-0.2W-0.2B-0.5Y alloy	YAO Hao-ming, WANG Qi-bin, WANG Tao, et al (170)
Numerical simulation of high speed friction and wear of H90 brass based on dynamic recrystallization softening mechanism	WANG Meng, WANG Shun, FENG Xiao-liang, et al (177)
Effects of vacancies and P atoms on tensile and shear deformation behavior of iron $\Sigma 3$ (111) grain boundary	WU Zhi-bo, ZHANG Xing-hong, ZHOU Bing-rao, et al (184)
Molecular dynamics simulation on tensile behavior of nanocrystalline Cu-Ni alloys	ZHANG Guo-dong, ZHAO Jun-sheng, GAO Shuai, et al (194)
Fracture failure model of high-strength dual-phase steel based on falling weight collapse	LUO Yu-mei, WANG Bo, LI Wei (200)
Modeling and simulation of quenching process of 2024 aluminum alloy thin-wall sheet	DENG Tao, JIN Shun-yao, LIU Le (207)

Forming Equipment and Intelligent Manufacture

Calculation and influence factors of temperature field of work roll in secondary cold rolling process	CHENG Zhi-yan, ZHANG Ya-zhen, LIU Ya-xing, et al (217)
---	--

(Executive Editor: ZHOU Lin, ZHU Xiao-kun)