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Profile

In March 2008, I received a Ph.D. degree in chemical process machinery major (instructor: Prof. Tu Shandong) at School of Mechanical and Power Engineering, East China University of Science and Technology. From July 2008 to November 2009, I worked as a postdoctoral researcher at the Central University of Korea (cooperative professor: Kee Bong Yoon). In May 2011, I joined the East China University of Science and Technology and mainly engaged in the research of material damage under hydrogen environment, fracture mechanism of cold rolled sheet steel and nondestructive inspection on hydrogen embrittlement. I have presided and participated in many scientific research projects such as the National Natural Science Foundation, the 973 project (National Basic Research Program of China), and the 863 project (State High-Tech Development Plan). So far, I have published more than 100 papers in domestic academic journals and conferences, including 18 papers in SCI and 35 papers in EI.

Research Field

1. Hydrogen damage of materials
2. Fracture mechanism of cold rolled sheet

Research results and main published thesis

- [1].Chen JJ*, Wu CJ, Ying JC. Application of Extended Finite Element Method for Studying Crack Propagation of Welded Strip Steel in the Cold Rolling Process. MATERIALS, 2023,16(17) 5870(SCI/EI)
- [2].Said Mohamed Yasin, Chen Jianjun*. Study on Defect Evolution of Steel Strip under High-speed Cold Rolling. Journal of Physics: Conference Series. 2023, 2430(1): 012023 (EI)
- [3].Changdong Yin, Dongdong Ye, Zhou Xu, Jianjun Chen et al. Experimental and Modeling Analysis of Hydrogen Motion Behavior in Welding Zone of 2.25Cr–1Mo–0.25V Steel Welded Joint with Hydrogen Corrosion. Metals and Materials International. 2023, 29: 2242–2256(SCI/EI)
- [4].Dongdong Ye, Zhou Xu, Changdong Yin, Yiwen Wu, Jianjun Chen, et al. Study on the Influence of Grain Size and Microstructure on the Mechanical Properties of Fe-6.5 wt%Si High Silicon Steel Prepared by CVD Method. Crystals 2022, 12(10): 1470(SCI/EI)
- [5].Ye DD, Yin CD, Xu Z, Chen JJ, Wu YW, Pan JB, Zeng GL, Xu HC, Li R. Feasibility of using ultrasonic-based prediction for hydrogen embrittlement susceptibility of high-strength heat-resistant steel 2.25Cr-1Mo-0.25V. Measurement. 2022, 196(6): 111162 (SCI/EI)
- [6].Li Xiang, Chen Jianjun*, Zhou Dingshan, Gu Qingdong. A modified biogeography-based optimization algorithm based on cloud theory for optimizing a fuzzy PID controller. Optimal Control Applications and Methods. 2022, 43(3): 722-739 (SCI/EI)
- [7].Yi-wen WU, Jian-jun CHEN*, Chang-dong YIN, Shi-bo WANG, Qing-dong GU. Simulation and experiment evaluation of hydrogen damage in 2.25cr1mo0.25v steel by ultrasonic detection. Proceedings of the 2020 15th Symposium on Piezoelectricity, Acoustic Waves, and Device Applications, 2021, Apr. 16 - Apr.19: 673-676 (EI)
- [8].Bian Jiapan, Chen Jianjun*. Analysis of Damage Field of Needle Coke Impacted by High Pressure Water Jet Based on SPH Algorithm. 2021 4th International Conference on Electron Device and Mechanical Engineering, ICEDME 2021, 221-225 (EI)
- [9].Li C, Sun Q, Tang C L, Lu Y B, Song H J, Chen J J, Qin Z H, A two-steps method to prepare silver nanoparticle ink for improving electrical and mechanical properties of printed silver wire. Materials Express. 2021,11(4): 516-523 (SCI/EI)
- [10].Jianjun Chen*, Weijie Yuan, Wenhao Wu, Cheng Yang. Numerical simulation of wrinkling behavior for the tin plate. Procedia Manufacturing. 2020,50(10): 429-432
- [11].Changdong Yin, Jianjun Chen*, Dongdong Ye, Zhou Xu, Jiahao Ge and Haiting Zhou. Hydrogen Concentration Distribution in 2.25Cr-1Mo-0.25V Steel under the Electrochemical Hydrogen Charging and Its Influence on the Mechanical Properties. Materials. 2020,13(10): 2263-2277(SCI/EI)
- [12].Zhou Xu, Dongdong Ye, Jianjun Chen*, and Haiting Zhou. Novel Terahertz Nondestructive Method for Measuring the Thickness of Thin Oxide Scale Using Different Hybrid Machine Learning Models. Coatings. 2020,10(9): 805-819(SCI/EI)
- [13].Sun Quan, Lu Yebo, Chen Jianjun. Identification of material parameters of a shear modified GTN damage model by small punch test. International Journal of Fracture. 2020, 222(1-2): 25-35
- [14].Zhou Haiting, Ye Dongdong, Chen Jianjun, Wang Qiang, Fan Xinwei. Discussion on the characterisation of hydrogen embrittlement based on eddy current signals Insight: Non-Destructive Testing and Condition Monitoring, 2020, 62(1): 11-14(SCI/EI)