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Education and work

Assistant Researcher, Shanghai Jiao Tong University, 2017

Ph.D., China, Shanghai Jiao Tong University, 2014-2017

M.A., China, Hebei University of Technology, 2010-2013

B.A., China, Hebei University of Technology, 2006-2010

Academic Activities

Appointed as the editorial board member of *Materials*, *International Journal of Materials Science*, *Chinese Rare Earths*, etc and invited as a reviewer for 20+ SCI Journals including *Composites part B*, *Materials and Design*, *Materials Characterization*, *Intermetallics*, *Materials Science and Engineering A*, etc.

Main Publications (20)

1. Haonan Li, Min Fan, **Kui Wang***, et al. TiCN nanoparticle-induced corrosion inhibition mechanisms of AZ91 alloy, *Corrosion Science*, 2022, 198, 110109.
2. Haonan Li, Min Fan, **Kui Wang***, et al. Traditional Chinese medicine extracts as novel corrosion inhibitors for AZ91 magnesium alloy in saline environment, *Scientific Reports*, 2022, 12, 7367.
3. Haonan Li, **Kui Wang***, Gaopeng Xu, et al. Effective inhibition of anomalous grain coarsening in cast AZ91 alloys during fast cooling via nanoparticle addition, *Journal of Magnesium and Alloys*, <https://doi.org/10.1016/j.jma.2021.10.008>.
4. Gaopeng Xu, **Kui Wang***, Haonan Li, et al. In situ nanoparticle-induced anti-oxidation mechanisms: Application to FeCrB alloys, *Corrosion Science*, 2021, 190, 109656.
5. Gaopeng Xu, **Kui Wang***, Haonan Li, et al. In situ nanoparticle-induced anti-oxidation of FeCr alloys, *Materials Characterization*, 2021, 179, 111372.
6. Gaopeng Xu, **Kui Wang***, Xun Lv, et al. Synergistic effects of γ -Al₂O₃ nanoparticles and fast cooling on the microstructural evolution and mechanical properties of Al-20Si alloys, *Materials Characterization*, 2021, 178, 111240.

7. Haonan Li, **Kui Wang***, Gaopeng Xu, et al. Nanoparticle-induced growth behavior of primary α -Mg in AZ91 alloys, **Materials and Design**, 2020, 196, 109146.
8. Gaopeng Xu, **Kui Wang***, Xianping Dong, et al. Multiscale corrosion-resistance mechanisms of novel ferrous alloys in dynamic aluminum melts, **Corrosion Science**, 2020, 163, 108276.
9. Gaopeng Xu, **Kui Wang***, Xianping Dong, et al. Effects of Titanium Addition on the Microstructural and Mechanical Property Evolution of FeCrB Alloys, **Metallurgical and Materials Transactions A**, 2020, 51: 4610.
10. Gaopeng Xu, **Kui Wang***, Haiyan Jiang, et al. Review on corrosion resistance of mild steels in liquid aluminum, **Journal of Materials Science and Technology**, 2020, 2409.
11. **Kui Wang***, Gaopeng Xu, Haiyan Jiang, et al. Development of Al-TiCN nanocomposites via ultrasonic assisted casting route, **Ultrasonic Sonochemistry**, 2019, 58, 104626.
12. **Kui Wang***, Xun Lv, Yunmao Zhu, et al. In-situ synthesis of novel Al-P-O master alloy and its refinement and modification effects on Si phases in hypereutectic Al-30Si alloys, **Materials Characterization**, 2019, 157, 109900.
13. Gaopeng Xu, **Kui Wang***, Xianping Dong, et al. Experimental and Theoretical Research on the Corrosion Resistance of Ferrous Alloys in Aluminum Melts, **Metallurgical and Materials Transactions A**, 2019, 50: 4665.
14. **Kui Wang**, Haiyan Jiang*, Yiwang Jia, et al. Nanoparticle-inhibited growth of primary aluminum in Al-10Si alloys, **Acta Materialia**, 2016, 103: 252.
15. **Kui Wang***, Haiyan Jiang, Qudong Wang, et al. Influence of nanoparticles on microstructural evolution and mechanical properties of Sr-modified Al-10Si alloys, **Materials Science and Engineering A**, 2016, 666: 264.
16. **Kui Wang**, Haiyan Jiang*, Qudong Wang, et al. A Novel Method to Achieve Grain Refinement in Aluminum, **Metallurgical and Materials Transactions A**, 2016, 47: 4788.
17. **Kui Wang**, Haiyan Jiang*, Yingxin Wang, et al. Microstructure and mechanical properties of hypoeutectic Al-Si composite reinforced with TiCN nanoparticles, **Materials and Design**, 2016, 95: 545.
18. **Kui Wang**, Haiyan Jiang*, Qudong Wang, et al. Nanoparticle-induced nucleation of eutectic silicon in hypoeutectic Al-Si alloy, **Materials Characterization**, 2016, 117: 41.
19. **Kui Wang**, Chunxiang Cui*, Qian Wang, et al. Fabrication of in situ AlN-TiN/Al inoculant and its refining efficiency and reinforcing effect on pure aluminum, **Journal of Alloys and Compounds**, 2013, 15: 5.
20. **Kui Wang**, Chunxiang Cui*, Qian Wang, et al. The microstructure and formation mechanism of core-shell-like TiAl₃/Ti₂Al₂₀Ce in melt-spun Al-Ti-B-RE grain refiner, **Materials Letters**, 2012, 15: 153.