



Prof. Dr. Xiaoxiang Wu

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■ Education and work experience

Prof. Dr. Xiaoxiang Wu obtained her bachelor degree in engineering from East China Jiaotong University in 2006. She continued her master study in Kunming University of Science and Technology and was awarded with master degree in engineering in 2013. In Nov. 2013, Dr. Xiaoxiang Wu joined Prof. Dr.-Ing Gunther Eggeler's group as a PhD student in Ruhr University Bochum. She got her doctoral degree in engineering in Dec. 2016. From Jan. 2017 to Dec. 2017, Dr. Xiaoxiang Wu continued to work as a postdoctoral researcher in the field of Ni-based single crystal superalloys in Prof. Eggeler's group. During this time, Dr. Xiaoxiang Wu worked also as a guest scientist in Max-Planck-Institut für Eisenforschung in the groups of Prof. Gerhard Dehm and Prof. Dierk Raabe. Starting from Jan. 2018, Dr. Xiaoxiang Wu worked full-time in Max-Planck Institute für Eisenforschung as a postdoctoral researcher in the group of Prof. Dierk Raabe. In August 2020, Dr. Xiaoxiang Wu joined Shagang School of Iron and Steel in Soochow University as a professor. Dr. Xiaoxiang Wu has published more than 25 publications in the peer-reviewed journals such as Nature Communications, Acta Materialia, and Physical Review Materials etc. She worked as a reviewer for the peer-reviewed journals such as Acta Materialia, Materials & Design and Journal of Alloys and Compounds.

■ Main research focus

1. Creep deformation mechanisms for Ni-based single crystal superalloys
2. FCC composition complex alloys design and deformation mechanisms investigation
3. Transmission electron microscopic characterization and analysis of crystalline defects

■ Representative publications

1. **X. Wu**, Z. Li, Z. Rao, Y. Ikeda, B. Dutta, F. Körmann, J. Neugebauer, and D. Raabe, Role of magnetic ordering for the design of quinary TWIP-TRIP high entropy alloys, *Phys. Rev. Mater.* 4 (2020) 033601;
2. **X. Wu**, S.K. Makineni, G. Dehm, D. Raabe, B. Gault, G. Eggeler, et al., Re segregation assisted strengthening in Ni-based single crystal superalloys, *Nature Comm.* 11 (2020) 1076;
3. **X. Wu**, S.K. Makineni, P. Kontis, G. Dehm, D. Raabe, B. Gault, G. Eggeler, On the segregation of Re at dislocations in the γ' phase of Ni-based single crystal superalloys,

Mater. 4 (2018) 109-114;

4. **X. Wu**, A. Dlouhy, A. Kostka, C. Somsen, Y. M.Eggeler, G. Eggeler, On the nucleation of planar faults during low temperature and high stress creep of single crystal Ni-base superalloys, Acta Mater. 144 (2018) 642-655;
5. J. Su, **X. Wu**, D. Raabe, Z. Li, Deformation-driven bidirectional transformation promotes bulk nanostructure formation in a metastable interstitial high entropy alloy, Acta Mater. 167 (2019) 23-39;
6. **X. Wu**, P. Wollgramm, C. Somsen, A. Dlouhy, A. Kostka, G. Eggeler, Double minimum creep of single crystal Ni-base superalloys, Acta Mater. 112 (2016) 242-260.

■ Awards

1. Best poster presentation in 2016 Junior Euromat Conference