

## Yunzhi Wang - Publication List

### Peer Reviewed Journal Papers:

2020

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- Y.P. Gao, Y.F. Zhen, H.L. Fraser, Y. Wang, "Intrinsic coupling between twinning plasticity and transformation plasticity in metastable  $\beta$  Ti-alloys: a symmetry and pathway analysis," *Acta Mater.* **196** (2020) 488-504.  
DOI: 10.1016/J.ACTAMAT.2020.07.020
- T.L. Zhang, D. Wang, Y. Wang, "Novel transformation pathway and heterogeneous microstructure in Ti-Alloys," *Acta Mater.* **196** (2020) 409-417.  
DOI: 10.1016/J.ACTAMAT.2020.06.048
- Y.P. Gao, Y.F. Zhang and Y. Wang, "Determination of Twinning Path from Broken Symmetry: a Revisit to Deformation Twinning in BCC Metals," *Acta Mater.* **196** (2020) 280-294.  
DOI: 10.1016/J.ACTAMAT.2020.06.031
- T.L. Zhang, D. Wang, J.M. Zhu, H. Xiao, C.T. Liu, Y. Wang, "Non-conventional transformation pathways and ultrafine lamellar structures in  $\gamma$ -TiAl alloys," *Acta Mater.* **189** (2020) 25-34.  
DOI: 10.1016/J.ACTAMAT.2020.02.053
- C.X. Liang, D. Wang, Z. Wang, X.D. Ding, Y. Wang, "Revealing the Atomic Mechanisms of Strain Glass Transition in Ferroelastics," *Acta Mater.* **194** (2020) 134-143.  
DOI: 10.1016/J.ACTAMAT.2020.04.014
- P.Y. Zhao, T.S.E. Low, Y. Wang, S.R. Niezgod, "Finite Strain Phase-Field Microelasticity Theory for Modeling Microstructural Evolution." *Acta Mater.* **191** (2020) 253-269.  
DOI: 10.1016/J.ACTAMAT.2020.03.033
- J.M. Zhu, D. Wang, Y. Gao, T.Y. Zhang, Y. Wang, "Linear-Superelastic Metals by Controlled Strain Release via Nanoscale Concentration-Gradient Engineering," *Materials Today* **33** (2020) 17-23. <https://doi.org/10.1016/j.mattod.2019.10.003>
- S. Antonov, Z. Kloenne, Y.P. Gao, Y. Wang, Q. Feng, H.L. Fraser, Y.F. Zheng, "Novel deformation twinning system and stress-induced transformation in a cold rolled high strength  $\beta$  Ti-5Al-5V-5Mo-3Cr alloy," *Materialia* **9** (2020) 100614.  
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- Y. Gao, T. Yu and Y. Wang, Phase Transformation Graph and Transformation Pathway Engineering for Shape Memory Alloys. *Shap. Mem. Superelasticity* (2020).  
<https://doi.org/10.1007/s40830-020-00271-5>.
- Q.L. Liang, D. Wang, Y.F. Zheng, S.S. Zhao, Y.P. Gao, Y.L. Hao, R. Yang, H.L. Fraser, Y. Wang, "Shuffle-nanodomain regulated strain glass transition in Ti-24Nb-4Zr-8Sn  $\beta$ -Ti alloy," *Acta Mater.* **186** (2020) 415-424.  
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- Y. Yang, H.L. Zhang, Q.Y. Sun, Q.M. Hu, X.D. Ding, Y. Wang, L. Vitos "Ab initio study of the elastic properties of body-centered cubic Ti-Mo-based alloys," *Comp. Mat. Sci.* **172** (2020) 109320.  
DOI: 10.1016/J.COMMATSCI.2019.109320
- Y. Gao, Y.F. Zhang, L.K. Agesen, J.G. Yu, M. Long, Y. Wang, "Defect-free plastic deformation through dimensionality reduction and self-annihilation of topological defects in crystalline solids," *Phys. Rev. Research* **2** (2020) 013146-1 – 10.  
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- X. Sun, H.L. Zhang, W. Li, X.D. Ding, Y. Wang, L. Vitos, "Generalized Stacking Fault Energy of Al-Doped CrMnFeCoNi High-Entropy Alloy" *Nanomaterials* **2020**, *10*, 59.  
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