Jian WANG

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RESEARCH INTERESTING

- Mg/Zn-based absorbable biomaterials;
- Ni/Co-based super alloys;

PROFESSIONAL AND ACADEMIC EXPERIENCE

2022/09–Present	Seoul University	Dept. Materials Engineering	BK Associate Professor
2017/06–Present	Peking University	Shenzhen Institution	Visiting Researcher
2018/04–2022/08	Yangzhou University	Dept. Mechanical Engineering	Professor
2016/01–2018/03	NUIST(Nanjing, China)	Dept. Physics and optoelectronics	Professor
2015/08–2015/12	Montreal University	Dept. Chemical Engineering	Associate Researcher
2014/04–2015/07	Montreal University	Dept. Chemical Engineering	Postdoc Researcher

EDUCATION

- Polytechnique Montreal, Canada, ***Ph.D.*** *in Metallurgical Engineering (2014)*
- Xiamen University, China, ***M.Sc.*** *in Materials Science and Engineering (2007)*
- Jimei University, China, ***B.Sc.*** *in Marine Engineering (2004)*

PUBLICATIONS & ACCOMPLISHMENTS

1. **J. Wang**, L.Z. Meng, W.X. Xie, C. Ji, R.H. Wang, P.H. Zhang*, L.L. Jin, L.Y. Sheng*, Y.F. Zheng, Corrosion and in vitro cytocompatibility investigation on the designed Mg-Zn-Ag metallic glasses for biomedical application, ***Journal of Magnesium and Alloys***, (**2023**, available online). (**IF=11.862**)

2. **J. Wang**, L.Z. Meng, Z. Zhang, B.S. Sha, X.X. Fu*, L.Y. Sheng*, D.K. Xu, Y.F. Zheng, Investigation on the crystal structure and mechanical properties of the ternary compound $Mg_{11-x}Zn_xSr$ combined with experimental measurements and first-principles calculations,

Journal of Magnesium and Alloys, (**2023**, available online). (**IF=11.862**)

3. **J. Wang***, Z. Zhang, Y.J. Zhang, L.L. Jin, L.Y. Sheng, Experimental measurement on the phase equilibria of the Mg–Ag–Cu ternary system at 350 and 400° C, ***Journal of Magnesium and Alloys***,10(2) (**2022**) 449. (**IF=11.862**)

4. **J. Wang***, Y.-N. Zhang, P. Hudon, I.-H. Jung, P. Chartrand, M. Medraj, "Experimental study on solubility and crystal structure of new ternary compound $Mg_{15-x}Zn_xSr_3$ in the Mg-Zn-Sr system", ***Materials & Design***, 86 (2015) 305. **(IF=9.417)**

5. Z. Zhang, Q. Zhang, L.L Jin, Y.J. Zhang, T.Y. Cai, L.Y. Zhao, **J. Wang***, Z.Y. Jin, L.Y. Sheng*, Experimental determination of the phase equilibrium in the Mg-Cu-Ca ternary system at 350 C, ***Journal of Alloys and Compounds***, 818 (**2020**) 152865. (**IF=6.371**)

6. **J. Wang**, Y.-N. Zhang, P. Hudon, I.-H. Jung, M. Medraj, P. Chartrand, "Phase equilibria exmperimental measurements of the Mg-Zn-Ag ternary system at 300 ^oC", ***Journal of Alloys and compounds***, 639 (2015) 593. **(IF=6.371)**

7. **J. Wang**, P. Hudon, D. kevorkov, P. Chartrand, I.-H. Jung, M. Medraj, "Experimental and thermodynamic studying on Mg-Sn-In-Zn system", ***Journal of Alloys and compounds***, 588 (2014) 75. **(IF=6.371)**

8. **J. Wang***, C. Wang, L.Z. Meng, I.H. Jung, W.F. Rao, Biodegradable Mg-Zn-Ag metallic glasses design and biocompatibility characterization, ***Journal of Non-Crystalline Solids***, under review. (**IF=4.458**)

9. C.L. Wen*, J.M. Qian, L.L. Luo, J.H. Zeng, B.S. Sa*, X. Zhan, **J. Wang***, L.Y. Sheng, Y.F. Zheng, Effect of nitrogen on the structure evolution and biological properties of mesoporous bioactive glass nanospheres: Experiments and simulations, ***Journal of Non-Crystalline Solids***, 578 (**2022**) 121329. (**IF=4.458**)

10. **J. Wang***, Z. Zhang, I-H. Jung, W.F. Rao*,Critical evaluation and thermodynamic modeling of the Ag-X (X= Mn, Y, Sr) binary systems**, *Intermetallics***, 136, (**2021**) 107260. (**IF=4.075**)

11. **J. Wang***, K. Wang, C.C. Chen, W.F. Rao, C.P. Wang, X.J. Liu, "Critical evaluation and thermodynamic optimization of the U-Pb, and U-Sb binary systems, ***Journal of Nuclear Materials***, 480 (2016) 216. **(IF=3.555)**

12. **J. Wang***, K. Wang, C.H. Ma, L.D. Xie, "Critical evaluation and thermodynamic optimization of the U-Bi, U-Si and U-Sn binary systems ***Journal of Chemical Thermodynamics***, 92 (2016) 158. (**IF=3.269**)

13. **J. Wang***, D. Han, Z. Zhang, I.-H. Jung, W.F. Rao*, Experimental measurement and thermodynamic evaluation of the Mg-Cu-Sr ternary system, ***Journal of Chemical Thermodynamics***, 163 (**2021**) 106582. (**IF=3.269**)

14. **J. Wang**, N.H. Miao, I.-H. Jung, P. Chartrand, Thermodynamic study of Na-X (X: Ag, Ca, In, Sn, Zn) systems combined with Calphad and first-principles calculations methods. ***The Journal of Chemical Thermodynamics***, 66 (2013) 22. (**IF=3.269**)

15. **J. Wang**. C.P. Wang, X.J. Liu, "Thermodynamic calculation of the phase diagram on Ga-U and W-U systems", ***Journal of Nuclear Materials***, 380 (2008) 105. **(IF=3.555)**

16. **J. Wang**. C.P. Wang, X.J. Liu, "Thermodynamic modeling on Al-U and Co-U systems", ***Journal of Nuclear Materials***, 374 (2008) 79. **(IF=3.555)**

17. S.L. Cui*, **J. Wang***, I.H. Jung, Thermodynamic assessment of the Pd-Sn and Pt-Sn systems with the modified quasi-chemical model for liquid, ***Metallurgical and Materials Transactions A***, 53 (**2022**) 4296. (**IF=2.726**)

18. **J. Wang***, C. Ji, G.S. Pei, R.R. Cheng*, W.F. Rao, Experimental investigation and thermodynamic assessment of the Zn-Cu-Sr ternary system, CALPHAD, Under review. (**IF=2.004**)

19. L.Z. Meng, C. Ji, **J. Wang***, W.F. Rao*, Thermodynamic modeling of the Mg–Nd–Sr ternary system with key Experimental investigation, ***CALPHAD***, 80 (**2023**) 102530. (**IF=2.004**)

20. **J. Wang***, Z. Zhang, I-H. Jung, L.Y. Sheng*, Experimental investigation and thermodynamic modeling of the Mg–Sn–Sr ternary system, ***CALPHAD***, 9 (**2021**) 102237. (**IF=2.004**)

21. **J. Wang***, Z. Zhang, S. Li, L.Z. Meng, Z.M. Cao , W.F. Rao*,"Experimental investigation and thermodynamic modeling of the Mg-Cu-Ca ternary system", ***CALPHAD***, 75 (**2021**) 102325. (**IF=2.004**)

22. **J. Wang***, J.J. Han, B.L. Du, W.F. Rao, L.Y. Sheng, C.P. Wang, X.J. Liu, "Phase equilibria exmperimental measurements and thermodynamic modeling of the Mg-Sn-Ca-Sr quaternary system: part I Mg-Ca-Sn system", ***CALPHAD***, 58 (2017) 66. **(IF=2.004)**

23. **J. Wang***, I.-H. Jung, P. Chartrand, "Thermodynamic assessment on Ag-X (X: Ca, Li, Sr) and Ca-Y(Y: Li, In) binary systems", ***CALPHAD***, 50 (2015) 68. (**IF=2.004**)

24. **J. Wang**, J.J. Han, I.-H. Jung, D. Bairos, P. Chartrand, "Thermodynamic studying on the Mg-Sn-Li system via First-principles/CALPHAD methods and its application on Mg-based alloys development", ***CALPHAD***, 47 (2014) 100. (**IF=2.004**)

25. **J. Wang***, Y.-N. Zhang, P. Hudon, I.-H. Jung, P. Chartrand, M. Medraj., "Phase equilibria exmperimental measurements of the Mg-Zn-Sr ternary system", ***Journal of Materials Science***, 50 (23) (2015) 7636. (**IF=4.682**)

26. **J. Wang**, P. Chen, L.Z. Meng, L.L. Jin, Investigation on the mechanical and corrosion properties of ZnMnSr alloys for biodegradable orthopedic implants, ***Advanced Engineering Materials***, 24(8) (**2022**) 2101581. (**IF=4.122**)

27. **J. Wang**, Z. Zhang, Y.N. Zhang, D. Han, L.L. Jin, L.Y. Sheng*, P. Chartrand. M. Medraj, Investigation on metallic glass formation in Mg-Zn-Sr ternary system combined with the CALPHAD method, ***Materials Letters***, 256 (**2019**) 126628. (**IF=3.574**)

28. Y. Tang, J. Ma*, D. Han, **J. Wang***, H Qi, L Jin, Critical Evaluation and Thermodynamic Optimization of the Cu-Zn, Cu-Se and Zn-Se Binary Systems, ***Metals,*** 12 (9), (**2022**) 1401. (**IF=2.695**)

29. Jie Ma, Chen Ji, **Jian Wang***, Dong Han, Zhou Cui, Baisheng Sa and Senlin Cui,

Critical Evaluation and Thermodynamic Modeling of the Li-Se and Na-Se Binary Systems Using Combined CALPHAD and First-Principles Calculations Method, ***Metals***, 12 (**2022**) 1349. (**IF=2.695**)

30. **J. Wang**, P. Hudon, D. kevorkov, P. Chartrand, I.-H. Jung, M. Medraj, "Experimental and thermodynamic studying on Mg-Sn-Ag-In system", ***Journal of phase equilibria and diffusion***, 35(3) (2014) 284. (**IF=1.284**)

31. **J. Wang**, S.L. Cui, W.F. Rao*, "Critical evaluation and thermodynamic optimization of the Ag-Bi-Cu-Ni quaternary system: part I-binary subsystems", ***Journal of Electronic Materials***, 47(7) (**2018**) 4056. (**IF=2.047**)

32. L.Y. Zhao*, B.A. Zhou, Z. Zhang, B. Feng, Q.H. Wang, Z.Y. Jin, **J. Wang***, Determination of the Phase Equilibria in the Mg-Ag-Ca Ternary System at 350 °C, ***Journal of Phase Equilibria and Diffusion***, 42(6) (**2021**) 831. (**IF=1.284**)

33. B.N. Du, Z.Y. Hu, L.Y. Sheng, D.K. Xu, Y.X. Qiao, B.J. Wang, **J. Wang**, Y.F. Zheng, T.F. Xi, Microstructural characteristics and mechanical properties of the hot extruded Mg-Zn-Y-Nd alloys, ***Journal of Materials Science & Technology***, 60 (2021) 44. (**IF=10.319**)

34. L.Y. Zhao, Y.C. Xin*, Z. Jin, **J. Wang**, B. Feng, Q. Liu, Thermal stability of different texture components in extruded Mg–3Al–1Zn alloy, ***Journal of Magnesium and Alloys***, 7 (4), (2019) 577. (**IF=11.813**)

35. Y.C. Xu, C.C. Hu, L.W. Liu, **J. Wang**, W.F. Rao, J. W. Morris Jr., A. G. Khachaturyan, A nano-embryonic mechanism for superelasticity, elastic softening, invar and elinvar effects in defected pre-transitional materials, ***Acta Materialia***, 171 (2019) 240. (**IF=9.209**)

36. J.J. Han, C.P. Wang, **J. Wang**, X.J. Liu,Y.Z. Wang, Z.K. Liu, "Compositional design of Fe-based multi-component bulk metallic glass based on CALPHAD method", ***Materials & Design***, 126 (2017) 47. **(IF=9.417)**

37. C.P. Wang, **J. Wang**, S.H. Guo, X.J. Liu, I. Ohnuma, R. Kainuma, K. Ishida, "Experimental Determination and Thermodynamic Calculation of the Phase quilibria on the Co-Mo-W system", ***Intermetallics***, 17(8) (2009) 642. (**IF=4.075**)

38. C.P. Wang, Z.S. Li, **J. Wang,** et al., "Thermodynamic modeling on U-Nb and U-Mn systems", ***Journal of Nuclear Materials"***, 380 (2008) 99. **(IF=3.555)**

39. C.P. Wang, **J. Wang**, X.J. Liu et al., "Thermodynamic assessment on Co-La and Mo-La systems", ***Journal of Alloys and compounds***, 453 (2008) 174. **(IF=6.371)**

40. S. Cui, **J. Wang**, Z. You, R.E. Napolitano, Critical evaluation and thermodynamic modeling of the Pd–Sn system, ***Intermetallics,*** 126 (2020) 106945. (**IF=4.075**)

41. Y.C. Xu, L.W. Liu, F.D. Ma, **J. Wang**, and W.F. Rao*, Large enhancement of magnetic-field-induced strain in two-phase ferromagnetic nanodispersions, ***Physical Review B***, 98 (2018) 094110. (**IF=3.908**)

42. Q. Zhang, M. F. Huang, **J. Wang**, P. F. Zhang*, B. Chen, Z. Shi, J. Zhang, Investigation on airflow distribution under different feed thickness combined CFD modeling and experimental verification, ***Drying Technology***, 39 (3) (2020) 306. (**IF=3.556**)

43. I. -H. Jung*, Z.J. Zhu, J.H. Kim, **J. Wang**, P. Chartrand, A. Pleton, "Recent Progress on the Factsage Thermodynamic Database for New Mg Alloy Development", ***JOM***, 69(6) (2017) 1052. **(IF=2.597)**

44. K. Wang*, Z.J. Fei, **J. Wang**, Z.u Wu, C.H. Li, L.H. Xie, "Thermodynamic description of the AgCl-$CoCl_2$- $InCl_3$-KCl system", ***Materials chemistry and physics***, 163 (2015) 73. **IF=4.778**)

45. L. Jin, **J. Wang**, S. Rousselot, M. Dollé, P. Chartrand, Experimental and thermodynamic study of Li-O and Li2O-P2O5 systems, ***Canadian Journal of Chemical Engineering***, 97 (8) (2019) 2234. (**IF=2.500**)

CONFERENCE PRESENTATIONS

3. **Jian Wang,** Yi-nan. Zhang, In-Ho Jung, Patrice Chartrand and Mamoun Medraj, Experimental and thermodynamic study of formability and biocompatibility of Mg-Zn-Ag metallic glasses with assistance of the CALPHAD method, ***5th Annual World Congress of Advanced Materials-2016***, June 6-8, 2016, Chongqing, China.

2. **Jian Wang**, Yi-nan. Zhang, In-Ho Jung, Patrice Chartrand and Mamoun Medraj, Thermodynamic and experimental study on Mg-Sn-Zn-Li-Sr system and its application for Mg-based alloys design, Magnesium Technology Symposium, ***Conference of Metallurgists and Materials Science & Technology Conference and Exhibition***, October 27-31, 2013, Montreal, Canada.

1. **Jian Wang**, Cuiping Wang, Xinjun Liu, et al., " Thermodynamic optimization of Co-La and Mo-La binary systems", **13th Chinese Conference of Phase equilibria**, November 8-13, 2006, Xiamen China.

HONORS & AWARDS

- 2015/08…..Journal of phase equilibria and diffusion……Editor choice award (2014)
- 2015/03…..Journal of materials & design…… ……...Outstanding reviewer

LANGUAGES

- **Chinese** (Native language)/ **English** (Full proficiency)/ **French** (Oral Level A2)