Wei Li

PERSONAL INFORMATION

Gender and Marital Status:	Male | Married
Address:	University of Alabama at Birmingham
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Researcher Profile:	Google Scholar Wei Li

EDUCATION

12/2023-present	Postdoc, University of Alabama at Birmingham, Prof. Kathy Lu
02/2023-12/2023	Postdoc, Technical University of Darmstadt, Prof. Ralf Riedel and Prof. Anke Weidenkaff
10/2019-02/2023	PhD, Technical University of Darmstadt, Prof. Ralf Riedel
09/2016-06/2019	Master, Zhengzhou University, Prof. Bingbing Fan
09/2016-06/2019	Bachelor, Henan University of Technology

PUBLICATIONS

More than 30 papers have been published over the past five years. The following are some representative papers:

1. **W. Li,** S. Ma, S. Cui, J. Ding, M. Widenmeyer, X. Zhang, Y. Zhan, Z. Yu, W. Zhang, P. Zhu, T. Cui, A. Weidenkaff, R. Riedel, High-pressure synthesis, mechanical properties and oxidation behavior of advanced boron-containing α/β-Si_3N_4/Si ceramics using polymer-derived amorphous SiBN ceramics, ***J. Adv. Ceram.***, (2024). http://doi.org/10.26599/JAC.2024.9220961
2. **W. Li,** S. Ma, S. Cui, J. Ding, M. Widenmeyer, X. Zhang, Y. Zhan, Z. Yu, J. Cheng, P. Zhu, T. Cui, A. Weidenkaff, R. Riedel, High-Pressure Synthesis of Amorphous Si_3N_4 and SiBN-Based Monoliths without Sintering Additives, ***Adv. Eng. Mater.*** (2024) 2400677-2400686. http://doi.org/https://doi.org/10.1002/adem.202400677
3. **W. Li,** Z. Yu, L. Wiehl, T. Jiang, Y. Zhan, E. Ricohermoso, III, M. Etter, E. Ionescu, Q. Wen, C. Lathe, R. Farla, D.T. Teja, S. Bruns, M. Widenmeyer, A. Weidenkaff, L. Molina-Luna, R. Riedel, S. Bhat, Hard and tough novel high-pressure γ-Si_3N_4/Hf_3N_4 ceramic nanocomposites [J]. ***J. Adv. Ceram.*** 12(7) (2023) 1418-1429. http://doi.org/10.26599/JAC.2023.9220764
4. **W. Li,** M. Widenmeyer, J. Ding, T. Jiang, L. Feldmann, J. Liu, L. Molina-Luna, A. Weidenkaff, R. Riedel, Z. Yu, Phase evolution and oxidation resistance of Si_3N_4/HfB_2/HfBCN-ceramic nanocomposites prepared from tailored preceramic polymers [J]. ***Ceram. Int.*** 49(21) (2023) 34164-34172. http://doi.org/10.1016/j.ceramint.2023.08.123
5. **W. Li,** F. Li, Z. Yu, Q. Wen, B. Fan, Y. Feng, C. Zhao, E. Ricohermoso, III, M. Widenmeyer, A. Weidenkaff, R. Riedel, Polymer-derived SiHfN ceramics: From amorphous bulk ceramics with excellent mechanical properties to high temperature resistant ceramic nanocomposites [J]. ***J. Eur. Ceram. Soc.*** 42 (2022) 4493-4502. http://doi.org/10.1016/j.jeurceramsoc.2022.04.028

6. **W. Li,** H. Du, C. Tian, T. Jiang, J. Bernauer, M. Widenmeyer, L. Wiehl, L. Molina-Luna, J.P. Hofmann, A. Weidenkaff, Z. Yu, R. Riedel, Single-source-precursor derived bulk Si_3N_4/HfB_xN_{1-x} ceramic nanocomposites with excellent oxidation resistance [J]. ***Z. Anorg. Allg. Chem.*** 648 (2022) 1-9. http://doi.org/10.1002/zaac.202200203

7. **W. Li**, Z. Yu, Q. Wen, Y. Feng, B. Fan, R. Zhang, R. Riedel, Ceramic-based electromagnetic wave absorbing materials and concepts towards lightweight, flexibility and thermal resistance [J]. ***Int. Mater. Rev.*** 68(5) (2022) 487-520. http://doi.org/10.1080/09506608.2022.2077028

8. Y. Zhan, **W. Li**, T. Jiang, C. Fasel, E. Ricohermoso, J. Bernauer, Z. Yu, Z. Wu, F. Müller-Plathe, L. Molina-Luna, R. Grottenmüller, R. Riedel, Boron-modified perhydropolysilazane towards facile synthesis of amorphous SiBN ceramic with excellent thermal stability [J]. ***J. Adv. Ceram.*** 11 (2022) 1104-1116. http://doi.org/10.1007/s40145-022-0597-z (**First co-author**)

9. F Z. Wang, F. Zhang, N. Wang, **W. Li*,** Y. Chen, H. Wang, R. Zhang, Y. Zhu, B. Fan, Ternary layered boride MoAlB: A novel thermo-regulation microwave absorbing ceramic material, ***J. Adv. Ceram.,*** (2024). http://doi.org/10.26599/JAC.2024.9220890 (**Corresponding author**)

10. J. Du, S. Bao, **W. Li*,** Y. Chen, B. Fan, Structural, thermal, magnetic and microwave-absorbing properties of spinel-structured high entropy oxide $(MnFeCoNiX)_3O_4$ (X = Zn, Cu, Cr), ***Ceram. Int.,*** 50 (2024) 14697-14707. http://doi.org/https://doi.org/10.1016/j.ceramint.2024.01.383 (**Corresponding author**)

11. H. Niu, X. Jiang, **W. Li*,** Z. Min, B.R. Putra, W.T. Wahyuni, H. Wang, R. Zhang, B. Fan, Enhanced electromagnetic wave absorption via optical fiber-like PMMA@Ti_3C_2Tx@SiO_2 composites with improved impedance matching, ***Nano Research,*** 17 (2024) 1676-1686. http://doi.org/10.1007/s12274-023-6198-5 (**Corresponding author**)

12. **W. Li,** F. Zhang, N. Li, T. Su, B. Fan, H. Li, G. Ye, R. Zhang, Effect of atmosphere on the fabrication of Si_2N_2O matrix composites [J]. ***Process. Appl. Ceram.*** 12 (2018) 66-71. http://doi.org/10.2298/pac1801066l

13. J. Liu, **W. Li,** E. Ricohermoso III, Z. Qiao, Q. Dai, X. Liu, W. Xie, E. Ionescu, A. Weidenkaff, R. Riedel, Temperature-dependent mechanical and oxidation behavior of in-situ formed ZrN/ZrO_2-containing Si_3N_4-based composite [J]. ***J. Am. Ceram. Soc.*** 106 (2023) 4931-4943. https://doi.org/10.1111/jace.19146

14. Y. Zhan, **W. Li,** R. Grottenmüller, C. Minnert, T. Krasemann, Q. Wen, R. Riedel. Rapid curing of polysilazane coatings at room temperature via chloride-catalyzed hydrolysis/condensation reactions [J]. ***Prog. Org. Coat.*** 167 (2022) 106872-106879. https://doi.org/10.1016/j.porgcoat.2022.106872

15. L. Lu, T. Wen, **W. Li,** Q. Wen, Z. Yu, S. Tao, J. Yang, Y. Wang, X. Luan, X. Xiong, R. Riedel, Single-source-precursor synthesis of dense monolithic SiC/$(Ti_{0.25}Zr_{0.25}Hf_{0.25}Ta_{0.25})C$ ceramic nanocomposite with excellent high-temperature oxidation resistance [J]. ***J. Eur. Ceram. Soc.*** 44 (2024) 595-609. https://doi.org/10.1016/j.jeurceramsoc.2023.09.074

Academic Activities

A. Conference presentation

1. The 10th International Workshop on Spinel Nitrides and Related Materials, 2023, Ruedesheim, Germany. (Local organizer) https://www.hotmaterials.tu-darmstadt.de/

2. The 15th Pacific Rim Conference of Ceramic Societies and the 13th International Conference on High-Performance Ceramics, 2023, Shenzhen, China. (Invited talk) http://www.pacrim15.com/index.php/article/37.html

3. The XVIII conference of the European Ceramic Society, 2023, Lyon, France. (Invited talk). https://www.ecers2023.org/en/program/full-conference-program/34

4. DESY Photon Science Meeting "Research with Synchrotron Radiation and FELs", 2023, Hamburg, Germany.

5. MS&T24: Materials Science & Technology, 2024, Pittsburgh, Pennsylvania, USA.

B. Contributions to academic community

Regular reviewer for international journals, including prestigious ones such as Journal of Materials Chemistry A, Journal of Advanced Ceramics, Ceramics International and International Journal of Applied Ceramic Technology.

Topic coordinator for Special Issue of *Frontiers in chemistry* " Low-Dimensional High-Entropy Materials".

Assistant Editor of the Journal of Advanced Ceramics

C. Professional Affiliations:

Professional member of Minerals, Metals and Materials Society (TMS), USA

Professional member of American Ceramic Society, USA

Full Member of Sigma Xi, The Scientific Research Honor Society, USA