

Curricular Vitae

Bowen Li, PhD

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EDUCATION

- ◆ PhD, Materials Science and Engineering, Michigan Technological University, USA
- ◆ PhD, Mineralogy and Industrial Petrology, China University of Geosciences, Beijing, China
- ◆ MS, Mineralogy and Industrial Petrology (emphasis on ceramics), China University of Geosciences, Beijing, China
- ◆ BS, Geology and Mineral Resources, Xian Geology Institute, China

RESEARCH EXPERIENCE

Michigan Technological University Dept. Materials Science & Engineering/Institute of Materials Processing, Houghton, MI

Research Professor, 8/2016-present
Research Associate Professor, 8/2012-7/2016
Research Assistant Professor, 12/2008-7/2012

QTEK LLC, Chassell, MI

President and CTO, 9/2009-present

Wuhan Iron and Steel (Group) Corp. Center for Advanced Materials, Beijing, China

Senior Scientist/Project Leader (Adjunct), 11/2013-12/2016

Wyo-Ben, Inc. Billings, MT

Advisory-Asian Market, 11/2011-5/2015

Michigan Technological University Institute of Materials Processing, Houghton, MI

Research Assistant, 8/2002-12/2008

China University of Geosciences (Beijing) School of Materials Science, China

Vice Dean, 8/1995-3/2003 (Interim Dean, 11/2001-7/2002)

Associate Professor, 12/1995-3/2003

Assistant Professor, 6/1992-12/1995

UP Steel, Houghton, MI

Engineer (Adjunct), 2/2009-6/2009

Tangshan Ceramics Group Technology Center/Tsinghua University, Beijing, China

Research Fellow (adjunct), 9/1999-5/2002

Jiuquan Geology & Mineral Resources Survey Institute, Jiuquan, China

Geology Engineer (Certificated)/Team Leader/Vice President, 7/1983-9/1989

SELECTED PUBLICATIONS

a) Referred Publications/Proceedings (Over 130 papers)

1. **B. Li.** Interaction mechanism and safety of nonmetallic minerals and human tissue. In: *Prospectives of Nonmetallic Minerals* (ed. He. et al.). Beijing: Science Press, 2023, p229-234.

2. A. Chen; G. Luo; X. Sun; J. Qiao; J. Cao; Z. Du; **B. Li**. Synthesis and Characterization of Co₃O₄/ rGO Composite Magnetic Microwave Absorbing Materials. *JOM*, 2023, 75(2), pp.407–416. (DOI: 10.1007/s11837-022-05598-1)
3. **B. Li**. Perlite. *Mining Engineering*, 2022, 74(7), pp.67-69 (Invited).
4. **B. Li**, X. Huang, J. Hwang. Metallographic feature of a nickel-based superalloy in fluoride electrolyte melt. *Materials Engineering – From Ideas to Practice: An EPD Symposium in Honor of Jiann-Yang Hwang*, Switzerland: Springer Nature Switzerland AG, 2021. p105-112. (doi.org/10.1007/978-3-030-65241-8_10).
5. A. Chen, J. Mao, G. Luo, S. Lu, P. Zhang, Y. Ma, S. Chen, Z. Du, **B. Li**, and J. Qiao. The Formation Mechanism of the Third Phase in Nickel Electrolyte. *Materials Engineering – From Ideas to Practice: An EPD Symposium in Honor of Jiann-Yang Hwang*, Switzerland: Springer Nature Switzerland AG, 2021. p129-138. (doi.org/10.1007/978-3-030-65241-8_12).
6. D. Tan, Y. Li, Z. Zhang, S. Sun, H. Sun, **B. Li**. Selective Loading and Prolonged Release of 5-Fluorouracil in the Nanoconfined Interlayer Space of Montmorillonite. *Journal of Nanoscience and Nanotechnology*, 2021, 21(1): 781-787. (doi.org/10.1166/jnn.2021.18730)
7. H. Yu, F. Dong, **B. Li**. Highly sensitive colorimetric detection of atmospheric sulfate formation-involved substances using plasmonic molybdenum trioxide nanosheets. *Sensors and Actuators B: Chemical*, Vol. 320, Oct.1, 2020, 128368, (DOI: 10.1016/j.snb.2020.128368)
8. H. Yu; F. Dong, J. Chen; **B. Li**. 3,3'-diaminobenzidine with dual o-phenylenediamine groups: two in one enables visual colorimetric detection of nitric oxide. *Analytical and Bioanalytical Chemistry*, 2020, 412, pp2545–2550. (DOI: 10.1007/s00216-020-02482-2)
9. M. Yang, H. Sun, T. Peng, **B. Li**, Y. Xie. Structural Alteration of Montmorillonite by Acid Activation and Its Effect on the Decolorization of Rapeseed Oil. *JOM*, 2019, 71(10): 3667–3672. (DOI: 10.1007/s11837-019-03665-8)
10. H. Yu, F. Dong, **B. Li**, F. S. Riehle, Co (II) triggered radical reaction between SO₂ and o-phenylenediamine for highly selective visual colorimetric detection of SO₂ gas and its derivatives. *Sensors and Actuators B: Chemical*, 2019, 299, Nov.15, 2019. 126983 (DOI: 10.1016/j.snb.2019.126983)
11. D. TAN, H. Zhang, S. SUN, F. DONG, H. SUN, **B. LI**. Rapid flocculation-sedimentation of microalgae with organosilane-functionalized halloysite. *Applied Clay Science*, Aug. 2019, 177:37-42 (DOI: 10.1016/j.clay.2019.05.005)
12. X. Ma, H. Tan, F. Dong, **B. Li**, J. Wang, X. He, C. Liu. Influence of troilite on the decomposition of ammonium jarosite and estimated activation energy. *Journal of Thermal Analysis and Calorimetry*, June 2019, pp1-7. (DOI:10.1007/s10973-019-08480-6)
13. R. Li, L. Wang; Y. He; F. Dong; L. Bian; **B. Li**. Mechanochemical Synthesis of Defective Molybdenum Trioxide, Titanium Dioxide, and Zinc Oxide at Room Temperature. *ACS Sustainable Chemistry & Engineering*, May 2019, 7(14): 11985-11989 (DOI: 10.1021/acssuschemeng.9b00374)
14. **B. Li**. Perlite. *Mining Engineering*, 2018, v70, No.7, pp72-74. (Invited).
15. **B. Li**, M. He, C. Li. Characteristics of WISCO Steelmaking Slags. *Characterization of Minerals, Metals, and Materials 2018*. Cham, Switzerland: Springer International Publishing AG, 2018, pp95-103.
16. **B. Li**. Perlite. *Mining Engineering*, 2017, v69, No.7, pp75-76. (Invited).
17. **B. Li**, M. He, H. Wang. Phase Transformation of Andalusite-Mullite and Its Roles to Microstructure and Sinterability of Refractory Ceramic. *Metallurgical & Materials Transaction A*, 2017, 2017, 48(7), 3188-3192.
18. Y. Zhang, J.Y. Hwang, Z. Peng, M. Andriese, **B. Li**, X Huang, X. Wang, X. Yan. Penetration depth of Microwave in Tire Rubber. *Proceedings of 8th International Symposium on High Temperature Metallurgical Processing*. Springer, 2017, pp403-410.
19. H. Wang, **B. Li**, M. He, J.Y. Hwang. Mullitization Characteristics and Sinterability of Kyanite in Ceramic Preparation. *Characterization of Minerals, Metals, and Materials 2017*. New York: Spinger, International Publishing AG, pp251-259.
20. **B. Li**, M. He, J.Y. Hwang, W. Gan. Characteristics of anorthite-pyroxene ceramics made from hot-poured steelmaking slag. *JOM*, 2017, 69(2): 173-177.
21. **B. Li**. Perlite. *Mining Engineering*, 2016, V68, No.7, pp62-63. (Invited)

22. Y. Zhang, J.Y. Hwang, Z. Peng, M. Andriese, **B. Li**, X. Huang, X. Wang, and L. Li. Microwave Heating of Waste Tires. *Proceedings of 7th International Symposium on High-Temperature Metallurgical Processing*. John Wiley & Sons, Inc. Hoboken, New Jersey, 2016, p551-558
23. **B. Li**, M. He, J. Y. Hwang, W. Gan. Synthesis and Characteristics of Anorthite Ceramics from Steelmaking Slag. *Characterization of Minerals, Metals, and Materials 2016*. John Wiley & Sons, Inc. New Jersey, 2016, p263-269.
24. Q. Lu, **B. Li**. Electrical Effect and Influence Factors of Tourmaline. *Characterization of Minerals, Metals, and Materials 2016*. John Wiley & Sons, Inc. New Jersey, 2016, p83-89.
25. **B. Li**. Perlite. *Mining Engineering*, 2015, V67, No.7, pp75-76.
26. M. Wang, **B. Li**. A Novel Technology of Vanadium Extraction from Stone Coal, *Rare Metal Technology*. John Wiley & Sons, Inc. New Jersey, 2015, p.187-192.
27. Y. Zhang, J.-Y. Hwang, Z. Peng, M. Andriese, **B. Li**, X. Huang, X. Wang, Microwave Absorption Characteristics of Tire. *Characterization of Minerals, Metals, and Materials 2015*. Published by John Wiley & Sons, Inc. New Jersey, 2015, p235-243.
28. M. Wang, P. Xian, X. Wang, and **B. Li**, Extraction of Vanadium from Stone Coal by Microwave Assisted Sulphation Roasting, *JOM*, 2015, v67, p369-374.
29. M. Ogwuegbu, G. Onyedika, K. Onwukamike, and **B. Li**. Differential Characterization of Ikperejere Iron Shale and Iron Sandstone. *Characterization of Minerals, Metals, and Materials 2014*. John Wiley & Sons, Inc. New Jersey, 2014, p401-411.
30. C. Vogt, Q. Xing, W. He, **B. Li**, M. Frost, F. Zhao. Nitric Oxide-Releasing Gelatin Nanofiber Matrix as a Potential Antibacterial Wound Dressing. *Biomacromolecules*, 2013, 14 (8), pp 2521–2530.
31. M. Andriese, J. Y. Hwang, Z. Peng, **B. Li**. Chemical Enrichment of Precious Metals in Iron Sulfides Using Microwave Energy. *4th International Symposium on High-Temperature Metallurgical Processing*, John Wiley & Sons, Inc., Hoboken, NJ, USA. Feb. 2013. p623-629.
32. J. Drelich, **B. Li**, B. Villeneuve, and P. Bowen. Inexpensive Mineral-Copper Materials with Antibacterial Surfaces. *Surface Innovations*, 2013, 1(1):15-26.
33. J. Drelich and **B. Li**. Inexpensive Mineral-based Antibacterial Materials with Infused Copper. *Proceedings of Annual International Conference on Materials Science, Metal & Manufacturing*, December 12-13, 2011, Singapore, p1-6 (Invited).
34. J. Drelich, **B. Li**, P. Bowen, J. Y. Hwang, O. Mills, D. Hoffman. Vermiculite decorated with copper nanoparticles: Novel antibacterial hybrid material, *Applied Surface Science*, 2011, 257 (22): 9435– 9443.
35. **B. Li**, J. Y. Hwang, J. Drelich, D. Popko, and S. Bagley. Physical, Chemical and Antimicrobial Characterization of Copper-bearing Material. *JOM*, 2010, 12: 80-85.
36. P. Shang, R. Zhao, M. Ji, **B. Li**. Removal of Ammonia Nitrogen from Rainwater by Modified Fly Ash and Zeolite. *Proceedings of 2010 SME Annual Meeting*, p1-5.
37. X. Sun, J. Y. Hwang, X. Huang, and **B. Li**. Petroleum Coke Particle Size Effects on the Treatment of EAF Dust through Microwave Heating. *Journal of Minerals & Materials Characterization & Engineering*, 2009, 8 (4): 249-259
38. Z. Xu, J. Y. Hwang, **B. Li**, X. Huang, and H. Wang. The Characterization of Various ZnO Nanostructures Using Field Emission SEM. *JOM*, 2008, 60 (4):28-32
39. M. He, Jianbao Li, **B. Li**, *et al*. Preparation of porous wollastonite ceramics for filtration. *Key Engineering Materials*, 2007, 337: 1102-1104
40. L. Liao, Z. Bai, **B. Li**, Y. Song, Y. Cui. Models of Teaching Management for School and Department. *Higher Education of Sciences*, 2006(5): 136-138
41. X. Sun, J. Y. Hwang, X. Huang, **B. Li**, S. Shi. Effects of microwave on molten metals with low melting temperatures. *J. of Minerals & Materials Characterization & Engineering*, 2005, 4(2):107-112
42. **B. Li**, J. Y. Hwang, S. Yu. Storing capacity of copper ions in vermiculite and its relation to the preparation conditions. *JOM*, 2004, 56(11), 339.
43. S. Shi, J. Y. Hwang, **B. Li**, X. Huang. Investigation into the sintering of magnesium fluoride optical material by microwave. *J. of Minerals & Materials Characterization & Engineering*, 2004, 3(2):105-108
44. Y. Kang, A. Lu, P. Zhou, **B. Li**, J. Li. Mineralogical properties of clay in Liulitun Sanitary Landfill, Beijing and its absorption capability against benzene. *China Non-metallic Mining Industry Herald*, 2004,(1): 34-37.

45. Y. Kang, A. Lu, P. Zhou, **B. Li**, J. Li, Y. Wu, M. Li. Adsorptive results of clay minerals against organic compounds in Liulitun Sanitary Landfill. *China Non-metallic Mining Industry Herald*, 2003,(2): 42-44.
46. X. Wang, P. Zhou, **B. Li**, H. Yu. Preparation and characterization of polystyrene/kaolinite nanocomposites. *Journal of the Chinese Ceramic Society*, 2003, 31(10): 955-958, +964.
47. Y. Huang, **B. Li**, M. He, F. Du, J. Chen. Porous calcium silicate ceramics synthesized by perlite tailings. *Bulletin of Chinese Ceramic Society*, 2003, 22(3): 85-87.
48. **B. Li**, S. Yu, J. Y Hwang, S. Shi. Antibacterial vermiculite nano- material. *Journal of Minerals & Materials Characterization & Engineering*, 2002, (1): 61-68
49. D. Xu, G. Gai, **B. Li**. Processing and utilization of natural brucite. *China Powder Technology*, 2002, (8): 4-6
50. G. Song, T. Peng, P. Wan, **B. Li**. Study on colorimetry of TiO₂-Muscovite nanocomposite. *Acta Physica Sinica*, 2002,51(7): 1575-1580
51. G. Song, T. Peng, P. Wan, **B. Li**. Preparation of TiO₂-Muscovite nanocomposite and its surface chemical features. *Acta Mineralogica Sinica*, 2002, 22(1):1-8
52. G. Song, P. Wan, T. Peng, **B. Li**. Elementary introduction of nanosciences and nanotechnology. *Journal of Southwest China Institute of Technology*, 2002,17(1): 75-78
53. F. Hu, H. Cheng, F. Yang, G. Zheng, Z. Zheng, **B. Li**. Preparation of Ag-carried antibacterial agent by using palygorskite as carrier. *Modern Chemical Engineering*, (2001), 21(6): 35-37.
54. **B. Li**, Y. Song and L. Liao, Internet resources for mineralogy education, *China geology education*, 2002, (1): 80-82.
55. **B. Li**, S. Yu, A. Lu, and P. Wan. Modes of occurrence of Cu²⁺ in the Cu-vermiculite antimicrobial agent. *Acta Petrologica et Minerologica*, 2001,20(4): 495-499, 503
56. **B. Li**, R. Wen, N. Wang, J. Li. Mullite Refractory Ceramic Made from Andalusite and α -Al₂O₃. *Journal of Wuhan University of Technology, Materials Science Edition*, 2001, 16(2): 44-46.
57. **B. Li**, M. He and J. Li. Prospect for mineral materials. *China Building Materials*, 2001, (6): 72-74.
58. Y. Fu, P. Wan, **B. Li**, T. Peng. Study on the disposing of waste water with Cr⁶⁺ using organized bentonite. *Journal of Southwest China Institute of Technology*, 2001,16(2): 65-69
59. W. Liu, **B. Li**, B. Pan, Y. Liu. Characteristics of deformation during Mesozonic Era in the Chaohu-Chuzhou Region, Anhui Province. *Geoscience*, 2001, 15(1): 13-20
60. G. Song, T. Peng, **B. Li**, P. Wan. Preparation and phase transformation of nanometer complex material of TiO₂-muscovite. *Bulletin of the Chinese Ceramic Society*, 2001, 20(Suppl.): 56-59.
61. Y. Kang and **B. Li**. Utilization of non-metallic minerals and solid waste in sanitary landfill. *China Non-metallic Mining Industry Herald*, 2001, (1): 15-17.
62. M. He, **B. Li**, J. Li. Application advance on porous ceramics. *Bulletin of the Chinese Ceramic Society*, 2001, 20 (Suppl): 1-3.
63. L. Yu, **B. Li**, Z. Jiang, X. Li. Admixing amount of magnesia in aerated concrete slabs. *Bulletin of the Chinese Ceramic Society*, 2001, 20(Suppl.): 81-83.
64. **B. Li**, Q. Xiao. Antibacterial properties of Ag-exchanged bentonite. *Non-metallic Mines*, 2001, 24(5): 17-18.
65. Z. Zheng, **B. Li**, F. Hu, G. Zheng, H. Cheng, Y. Yang. Existence state of Ag in Ag-palygorskite antibacterial agent. *Bulletin of the Chinese Ceramic Society*, 2001, 20(Suppl.): 67-69.
66. G. Song, **B. Li**, T. Peng, P. Wan. Present situation and prospecting perspective of muscovite resources in China. *Acta Geological Sichuan*, 2000, 20(3):198-201
67. N. Wang, **B. Li**, R. Weng. Application of feldspar in preparation of porcelain-fused-to-metal (PFM) powders. *J. Mineral Petrol*, 2000, 20(4):6-10.
68. G. Song, Y. Guo, N. Xiong, P. Wan, **B. Li**, T. Peng. Mineral resources of China muscovite and its mineralogy study and application. *J. of Southwest China Institute of Technology*, 2000, 15(2):73-77.
69. N. Wang, **B. Li**, H. Li, J. Feng. Application of non-metallic minerals in antibacterial materials. *Journal of China Universities*, 2000, 6(2): 306-309.
70. F. Hu, **B. Li**, Z. Zheng, W. Zhao. Application and prospect of metal ion antibacterial agents. *Multipurpose Utilization of Mineral Resources*, 2000,(4): 28-33.
71. Y. Kang, **B. Li**. Introduction of some Internet websites for mineralogy and mineral use. *China Non-metallic Mining Industry Herald*, 2000, (2): 45-46,48

72. G. Song; T. Peng, P. Wan; **B. Li**. Geological Characteristics of Museovite Ore Possession and its Discovery Prospect in China. *Journal of Southwest Institute of Technology*, 2000, 15(4), 47-51.
73. **B. Li**, R. Weng, X. Zhou. Aluminosilicate high-performance ceramic prepared from mineral micropowder. *Earth Science Frontiers*, 2000, 7(2):535-539.
74. F. Hu, **B. Li**, Z. Yang, Z. Zheng, F. Yang. The research situation of the metal ion antibacterial—Categories and properties. *Shanxi Building Materials*, 2000, (1): 32-34.
75. **B. Li**, X. Zhou, R. Wang. Sinterability and sintering mechanism of kyanite micropowder. *Refractories*, 1999, 33 (6):320-322.
76. Q. Xiao, **B. Li** and N. Wang. Inorganic antibacterial agents: a review. *China Non-metallic Mining Industry Herald*, 1999, (6): 5-7.
77. **B. Li**, R. Wang and X. Zhou. Reinforcement effect of andalusite micropowder on refractory made from high-alumina bauxite clinker. *Bulltin of Mineralogy petrology and Geochemistry* 1999, 18 (4):217-220.
78. N. Wang, **B. Li**, H. Tao. Interstratified development of organo-bentonite and its application in modification of polypropylene. *Journal of Southwest Institute of Technology*, 1999,14 (Suppl.): 131-132,149
79. **B. Li**, R. Weng, X. Zhou. Sinterability of andalusite micro powder. *Refractories*, 1999, 33(3): 130-132.
80. N. Wang, H. Tao, **B. Li**. Current situation of inorganic antibacterial agents and development of mineral materials. *Bulltin of Mineralogy Petrology and Geochemistry*, 1999, 18(1):61-65.
81. **B. Li**, Preparation of mullite-silica-rich glass composite material with kyanite micropowder. *Non-metallic Mines*, 1998, 21(6):21-23, 46.
82. **B. Li** and N. Wang, Mullite silica-rich glass composite material developed from andalusite micropowder, *Proceedings of The First China International Conference on High-Performance Ceramics*, Beijing: Tsinghua University Press, 1999, 438-441.
83. **B. Li** and N. Wang. From Industrial Petrology to Mineral Materials. *Geology History Letter*, China geology History Research Society, 1998 (Sppl.): 41-43
84. **B. Li**, R. Weng and X. Zhou. Present application situation and trend of kyanite-group minerals. *Geological Science and Technology Information*, 1997, 16(1): 59-63.
85. **B. Li**, R. Weng and J. Li. Experiment and research on the preparation of mullite fibre reinforced material with andalusite. *Refractories*, 1996, 30(6): 305-307,313
86. **B. Li**. The relationship between petrology, mineralogy and materials science. *Geological Science and Technology Information*, 1995, 14(3):56-60
87. **B. Li**. Educational Orientation of Inorganic Nonmetallic Materials Program in Geological Universities. China Geological Education, 1995, (2): 42-43
88. **B. Li**, R. Weng. The high temperature feature and mullitization behavior of andalusite from Xixia, Hanan Province. *Journal of Mineralogy and Petrology*, 1993, 13(3): 36-41
89. **B. Li**. Giant regional shear movement in Southern Belt of Beishan, Gansu. *Northwest Geology*, 1990, (4): 25-28
90. **B. Li**. The theory of multiple stratigraphic classification and its application in Gansu. *Regional Geology of China*, 1990, 4(35), 379-384.
91. **B. Li**. Modern agriculture and geology. *Gansu Geological Science and Technology Information*, 1989, (4): 12-14
92. **B. Li**. Mudflow deposition in Jintar Beishan, Gansu. *Gansu Geological Science and Technology Information*, 1988, (4):
93. **B. Li**. Re-consideration of the division of Jushitan Group and Shuangbaotang Group in Beishan Region based on the theory of multiple stratigraphic classifications. *Qilian Geology*, 1986, (2) (in Chinese).

b) Other Publications

1. V. Sharma, S. Singh, **B. Li**, E. Palermo, R. H. Zha, C. L. Heldt. Antiviral effect of clay mineral infused with cupric ions and polymer-functionalized filter fabric (Antiviral effect of biocidal agents on surfaces). American Chemical Society, Atlanta, Georgia, USA, Aug. 22–26, 2021 (poster).
2. **B. Li**. Preface. Materials Engineering – From Ideas to Practice: An EPD Symposium in Honor of Jiann-Yang Hwang, Switzerland: Springer Nature Switzerland AG, 2021. pp.v.

3. S. Song, **B. Li**. Preface, Adsorption at Natural Minerals/Water Interfaces. Cham, Switzerland: Springer Nature Switzerland AG, pp. v-vii, 2020. (ISBN 978-3-030-54451-5)
4. **B. Li**. Preface. *Advances in Powder and Ceramic Materials Science*. Page v-vi. Springer Nature Switzerland AG, Feb. 2020.
5. M. Zhang, **B. Li**. Urban Mining: Characterization and Recycling of Solid Wastes. *JOM*, 2019, 71(10), pp3656–3657 (DOI: 10.1007/s11837-019-03721-3).
6. **B. Li**. Preface. *Characterization of Minerals, Metals, and Materials 2019*. Cham, Switzerland: Springer International Publishing AG, Feb. 2019, pp. v-vi
7. M. He, **B. Li**, W. Zhou, H. Chen, M. Liu, L. Zou. Preparation and Characteristics of Steel Slag Ceramics from Converter Slag. *Characterization of Minerals, Metals, and Materials 2018*. Cham, Switzerland: Springer International Publishing AG, 2018, pp13-20
8. H. Wang, **B. Li**. Sepiolite: Applications and prospective in environment remediation, catalysis, and nanocomposite synthesis. *2018 SME Annual Conference Preprints* 18-061, 4 pages., Minneapolis, MN, Feb.25-28, 2018
9. **B. Li**. Preface. *Characterization of Minerals, Metals, and Materials 2018*. Cham, Switzerland: Springer International Publishing AG, 2018, vii-viii
10. **B. Li** and J. Li. Characterization and processing of advanced porous materials, *JOM*, 69(4), 2017, 69(4), pp689-690 (DOI: 10.1007/s11837-017-2296-8)
11. **B. Li**. SBIR Phase I: Copper-based Antimicrobial Plastic Masterbatch Pellets. Published by National Science Foundation, <http://grantome.com/grant/NSF/IIP-1416064>, March 2015.
12. **B. Li**, X. Huang, J. Y. Hwang. Erosion of A Nickel-based Superalloy in Fluoride Electrolyte Melt. 2015 TMS Annual Meeting, Orlando, FL (Poster).
13. **B. Li**, Wyo-Ben, Hudong Baike (www.hudong.com), Feb. 26, 2012
14. J. Drelich, **B. Li**, J.-Y. Hwang. New Vermiculite-Copper Nanoparticle Product with Antibacterial Properties. AIP Conference Proceedings, 2012, American Institute of Physics, Ste. 1 NO 1 Melville NY 11747-4502 United States
15. A. Garkida, J. Y. Hwang, X. Huang, **B. Li**. Evaluating the Compressive Strength and Microstructure of Recycled Glass Compacts. EPD Congress 2010, Recycling, TMS Publications (CD-ROM).
16. **B. Li**, J.Y. Hwang, and S. Bagley, Quantitative Assessment of Antibacterial and Antifungal Activities of Copper Vermiculite, *JOM*, 2009, v61, No.2, p.232
17. A. Garkida, J. Y. Hwang, X. Huang, C. Okuofu, **B. Li**, A. Ahuwan. Shrinkage Behaviour of Recycled Glass Compacts. *Proceeding of 137th TMS Annual Meeting*, March 9-13, 2008.
18. **B. Li**, Ying Huang, J. Y. Hwang. Preparation of Alkali Porous Ceramic with Fibrous Wollastonite. *136th TMS Annual Meeting Extraction, Processing Structure and Properties Proceedings*. The Minerals, Metals & Materials Society, Warrendale, PA, 2007, 109-116.
19. J. Y. Hwang, X. Huang, A. Garkida, S. Shi and **B. Li**. Utilization of Waste Glass in Alumina-Glass Composite. *136th TMS Annual Meeting Extraction, Processing Structure and Properties Proceedings*. The Minerals, Metals & Materials Society, Warrendale, PA, 2007, 121-126.
20. **B. Li**, J. Y. Hwang, S. Shi. Fibrous reinforcement in clay-bonded silicon carbide refractory using andalusite powder. *Proceedings of EPD congress 2006*, The Minerals, Metals & Materials Society, Warrendale, PA, 2006, 255-261.
21. S. Shi, J.-Y. Hwang, X. Sun, **B. Li**. Potentials of metal oxide molecules for binding hydrogen into clusters, Materials Science & Technology 2006, Cincinnati, OH, USA, Oct. 15-19, 2006
22. **B. Li**, J. Y. Hwang, A. M. Hein, Z. Xu. Phase transformation of andalusite and its impacts on refractory brick reinforcement. *Proceedings of EPD congress 2006*, The Minerals, Metals & Materials Society, Warrendale, PA, 2006, 295-302.
23. **B. Li**, J.-Y. Hwang. Long Lasting Antibacterial Material, 2006 Michigan Tech Sustainability Future Institute Posters, Houghton, MI, Sept.20, 2006
24. X. Sun, J. Y. Hwang, S. Shi, **B. Li**, X. Huang. Temperature Measurements in Microwave Heating. *EPD congress 2006*. The Minerals, Metals & Materials Society, Warrendale, PA, 2006, p1123-1132

25. J. Y. Hwang, S. Shi, **B. Li**, X. Sun. Storing hydrogen with metal perhydrides. *Proceedings of 2006 TMS Annual Meeting: Advanced Materials for energy Conversion III*, The Minerals, Metals & Materials Society, Warrendale, PA, 2006, 101-107.
26. **B. Li**, J. Y. Hwang, X. Huang. Effect of microwave irradiation on the characteristics of bentonite particles. *EPD congress 2005*, The Minerals, Metals & Materials Society, Warrendale, PA, 2005, 215-226.
27. **B. Li**, X. Huang, J. Y. Hwang. Acceleration of microwave irradiation on the melting of fluoride. *2004 AIChE Annual Meeting Proceedings*, 125-128
28. **B. Li**, J. Y. Hwang, X. Huang, Z. Xu, S. Yu. Characterization of copper vermiculite antibacterial nanomaterial. *EPD Congress 2003*. The Minerals, Metals & Materials Society, Warrendale, PA, 2003, pp.29-36.
29. **B. Li**. 2003 SME annual meeting: Research achievements on application of nonmetallic minerals. *Proceedings of First China Conference on Nonmetallic Minerals Science & Technology*, Beijing, China, March, 2003 91.
30. **B. Li**, S. Yu, J. Y. Hwang, S. Shi. Efficiency of copper supported vermiculite nano-antibacterial material against *Escherichia Coli*. Proceedings of 2002 SME Annual Meeting.
31. **B. Li**. Summary of 2nd Young Scientists Symposium of Chinese Ceramics Society. *Bulletin of the Chinese Ceramic Society*, 2000, 19(5): 63
32. N. Wang, J. Feng, **B. Li**, H. Li. Applications of Nonmetallic Minerals in Antibacterial Materials. Symposium for National Mineralogy of China at the Shifting of Centuries, 2000
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- Cun Gui (PI), Co-PI: Anhuai Lu, Bowen Li, Hanlong Ying, “Minerization and geological conditions of golden deposits in Eastern Anhui- Northern Jiangsu”. P. R. China National Plans Committee and China Gold Association, 1997-2000.
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- Zhang Zhao (PI), Bowen Li (Team Leader), Exploration of Jinmiaogou Gold Deposit, Gansu Geology Bureau, China, 1989.
- Zhao, Fushou (PI), Bowen Li (Team Leader), K-47-125-D and K-47-126-C 1:50000 Regional geology survey, Gansu Geology Bureau, China, 1988.
- Bowen Li (Project Manager), K-46-108-A 1:50,000 Regional geology survey, Gansu Geology Bureau, China, 1986.
- Yang, Yu (PI), Bowen Li (Technical Manager), K-47-97-A and K-47-97-C 1:50000 Regional geology survey, Gansu Geology Bureau, China, 1984-1985.

TEACHING EXPERIENCE

Michigan Technological University

- MSE 4410 – Science of Ceramic Materials, annually, 2019-

China University of Geosciences (Beijing), 1992-2002

- Introduction of Inorganic Nonmetallic Materials
- Inorganic Materials Processing
- Advanced Topics on Materials
- Refractory Ceramics
- Materials Processing Design

SELECTED HONORS AND AWARDS

- Hal William Hardinge Award, Society for Mining, Metallurgy & Exploration (SME), American Institute of Mining, Metallurgical, and Petroleum Engineers (AIME), 2022
- Dedicated Volunteer Service, The Minerals, Metals and Materials Society EPD Division, 2019
- Advisory Expert, China Nonmetallic Minerals Industrial Association, 2018
- Robert W. Piekartz Award, Society for Mining, Metallurgy & Exploration Industrial Minerals & Aggregates Division, 2018
- Academic Advisory Committee member, Key Laboratory for Solid Waste Treatment and Recycling of Ministry of Education, China, 2017-2021
- Guest Professor, Southwest University of Science and Technology, China, 2016-2019
- Best Paper in Characterization of Ceramics, TMS Materials Characterization Committee, 2016

- Accelerate Michigan Innovation Competition, Life Science, 1st Place, AMIC, 2015
- New Business Idea Award, The Great Lakes Entrepreneur's Quest (GLEQ), 2013
- Science and Technology Award, China Gold Association, 2002
- Member, Advisory Committee for Materials Education Nonmetallic Material Division of P. R. China Education Ministry, 2001-2005
- Best Graduate Thesis Award (Advisor), Hubei Provincial Government, China, 2005
- American Chemistry Society PEF Nanoparticle Materials Summer School, American Chemistry Society Petroleum Research Fund, 2004.
- Education Achievement Award, China University of Geosciences (Beijing), 2004
- Best Textbook Award, Beijing Municipal Education Commission, 2004
- Education and Teaching Achievement Award, Government of Beijing Municipality, 2004
- Best Paper, *Shanxi Building Materials*, China, 2001
- Collective Contribution Award for National *211 Project*, China University of Geosciences, 2001
- Study Abroad Scholarship, China University of Geosciences, Beijing, 2000
- Outstanding Young Faculty Member, Beijing Municipal Education Commission, 1998
- Teaching Achievement Award, Provincial Government of Hubei, 1997
- Teaching Achievement Award, China University of Geosciences (Beijing), 1996

PROFESSIONAL SOCIETIES AND SERVICES

Memberships

- Interstate Technology and Regulatory Council, 2023-present
- Society for Mining, Metallurgy & Exploration (SME), 2009-present
- The Minerals, Metals & Materials Society (TMS), 2005- present
- Materials Research Society (MRS), 2005-present
- American Ceramic Society, 2005- present
- Sigma Xi, the honor scientific society, 2007- present
- Council Member, China Non-metallic Minerals Association, 2000-2008
- Chinese Association for Industrialization of New Materials, 2001- 2007

Committee Assignments

- The Minerals, Metals & Materials Society (TMS)
 - Content Development & Dissemination Committee (member-at-large), 2021-2024
 - EPD Ad-hoc Committee for Ceramic Materials, Chair, 2022-present.
 - Materials Characterization Committee (Member 2005-present, Vice Chair, 2015-2017; Chair, 2017-2019; Past-Chair, 2019-2021)
 - Board Member, EPD Council (2015-2019)
 - Member, EPD Nomination and Award Committee (2012-2015)
 - Member, Powder Material Committee (2008-present)
 - Member, Biomaterials Committee (2011-present)
 - Committee Chair, Materials Characterization Committee Award Committee (2012-2015)
 - JOM Representative (2014-2020)
 - Symposium Co-organizer (2013~present, annually)
 - Session Chairs (Annually since 2013~present)
- MS&T Conference
 - Co-Organizer, Symposium on Powder Materials (2013)
- Society for Mining, Metallurgy & Exploration (SME)
 - SME Mining Engineering Committee, member (2019-2020)
 - SME Mineral Industry Education Award Committee, member, 2014-2016

- SME Distinguish Award Committee, member (2015-2017)
- SME IM&AD Hal Williams Harding Award Committee, Chair (2018-2019)
- SME Ivan B. Rahn Education Award Committee (2017-2018)
- SME Research Council, Vice Chair (2016-2018)
- SME Program Committee, member, 2017-2018
- SME Program Coordination Committee, member, 2016-2017
- SME Accreditation & Curricular Issues Committee, 2013-2016
- SME International Committee China Affairs Advisor, 2013-2014
- SME IM&AD Executive Committee, Member, 2017-2018
- SME IM&AD Program Committee, Chair, 2017-2018
- SME IM&AD Young Scientist Award Committee, Chair, 2015-2016
- SME IM&AD Technical Committee, Co-Chair of Chemical Minerals Group, 2014-2015
- Session Organizer and Chair (annually since 2013)
- P. R. China Education Ministry
 - Member, Educational Advisory Committee for Materials Science Nonmetallic Material Division, 2001-2005
- Chinese Ceramics Society
 - Board Member, Nonmetallic Minerals Division, 2014-present
 - Board Member, Technical Petrology Committee, 1996-2007
 - Associate Secretary-general, Young Scientists Branch, 1998-2004
 - Co-Organizer and Co-Executive Chair of 2nd Young Scientists Symposium, 2000
- Chinese Association for Industrialization of New Materials
 - Associate Secretary-general, 2001- 2007
- China Non-metallic Minerals Association
 - Council Member, 2000-2008
- Beijing Ceramics Society
 - Member, Nonmetallic Materials Committee, 1997- 2002

Editorial Board Member

- ◆ Reviews on Advanced Materials Science (2019-)
- ◆ Current Works in Mineral Processing (2019-)
- ◆ Editorial Board Member, *Journal of Minerals and Materials Characterization and Engineering* (2012-present)
- ◆ Editorial Board member, FUTO Journal Series, 2016-present
- ◆ Subject Advisor, *Journal of The Minerals, Metals & Materials Society* (2014-2015, 2017, 2018-2019)
- ◆ Editorial Board Member for *Research & Application of Building Materials* (2001-2008)
- ◆ Guest Editor, *Bulletin of the Chinese Ceramic Society*, 2000