Curriculum Vita

Name:	Laijiu Zheng
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Professor Laijiu Zheng obtained a Doctor of Engineering degree in Donghua University. He is Professor and Doctorial tutor of Dalian Polytechnic University, Chief of Liaoning Provincial Key Laboratory of Ecological Textile, Chief of Liaoning Provincial Engineering and Technical Research Center of Ecological Textile, Chief of National Research and Development Center for Supercritical Fluid Anhydrous Dyeing and Chief of Scientific-Research Base for Supercritical CO_2 Anhydrous Dyeing and Finishing Technology for Fibers and Yarns. He is also a State-Council Allowance Obtained Expert and Executive Director of China Textile Engineering Society. Professor Laijiu Zheng got the Chinese Textile Academic Leaders Award in 2016 and Liaoning Outstanding Scientific and Technological Workers in 2017.

In recent years, Professor Laijiu Zheng's research fields is ecofriendly textile processing technologies. He has carried out many research projects, including supercriticcal CO_2 anhydrous dyeing technology, degumming modification technology for hemp fibers using bio-enzymes, intelligent solar wool scouring technology with enzymes, and other researches. Some achievements have reached international advanced level.

Research Interests

1. Natural fiber biotechnology
2. Supercritical fluid dyeing technology

Recent Publications

1. Juan Zhang, Huanda Zheng, **Laijiu Zheng**. Effect of treatment temperature on structures and properties of flax rove in supercritical carbon dioxide. Textile Research Journal, 2018, 2018, 88(2): 155-166.
2. Juan Zhang, Huanda Zheng, **Laijiu Zheng**. Optimization of eco-friendly reactive dyeing of cellulose fabrics using supercritical carbon dioxide fluid with different humidity. Journal of Natural Fibers, 2018, 15(1): 1-10.
3. Juan Zhang, Huanda Zheng, **Laijiu Zheng**. A novel eco-friendly scouring and bleaching technique of flax rove using supercritical carbon dioxide fluid. Journal of Engineered Fibers and Fabrics, 2017, 12(4): 44-51.
4. Huanda Zheng, Yanyan Xu, Juan Zhang, Xiaoqing Xiong, Jun Yan, **Laijiu Zheng**. An ecofriendly dyeing of wool with supercritical carbon dioxide fluid. Journal of Cleaner Production,

2017, 143: 269-277.
5. Huanda Zheng, Juan Zhang, Miao Liu, Jun Yan, Hongjuan Zhao, **Laijiu Zheng**. CO_2 Utilization for the dyeing of yak hair: Fracture behavior in supercritical state. Journal of CO_2 Utilization, 2017, 18: 117-124.
6. Huan-Da Zheng, Juan Zhang, Jun Yan, Xiao-Qing Xiong, Hong-Juan Zhao, **Lai-Jiu Zheng**. Investigations on the effect of carriers on meta-aramid fabric dyeing properties in supercritical carbon dioxide. RSC Advances, 2017, 7: 3470-3479.
7. Huanda Zheng, Juan Zhang, **Laijiu Zheng**. Optimization of an ecofriendly dyeing process in an industrialized supercritical carbon dioxide unit for acrylic fibers. Textile Research Journal, 2017, 87(15): 1818-1828.
8. Huan-Da ZHENG, **Lai-Jiu ZHENG**, Miao LIU, Yao-Hua SU, Jun YAN, Hong-Juan ZHAO, Fang YE. Mass transfer of Diperse Red 153 and its crude dye in supercritical carbon dioxide fluid. Thermal Science, 2017, 21(4): 1745-1749.
9. Juan Zhang, **Laijiu Zheng**, Yaohua Su, Miao Liu, Jun Yan, Xiaoqing Xiong. Dyeing behavior prediction of cotton fabrics in supercritical CO_2. Thermal Science, 2017, 21(4): 1739-1744.
10. Juan Zhang, **Laijiu Zheng**, Jinsong Wu, Jun Yan. Investigation of the optimum treatment condition for flax rove in supercritical CO_2. Thermal Science, 2017. (Accept).
11. Huanda Zheng, Juan Zhang, Jun Yan, **Laijiu Zheng**. An industrial scale multiple supercritical carbon dioxide apparatus and its eco-friendly dyeing production. Journal of CO_2 Utilization, 2016, 16: 272-281.
12. Xiaoqing Xiong, Yanyan Xu, **Laijiu Zheng**, Jun Yan, Hongjuan Zhao, Juan Zhang, Yanfeng Sun. Polyester Fabric's Fluorescent Dyeing in Supercritical Carbon Dioxide and its Fluorescence Imaging. Journal of Fluorescence, 2017, 27: 483-489.
13. Xiaoqing Xiong, Jun Yan, Fang Ye, Yongfang, **Laijiu Zheng**, Yongfang Qian, Fengling Song. A turn-on and colorimetric metal free long lifetime fluorescent probe and its application for time-resolved luminescent detection and bioimaging of cysteine. RSC Advances, 2015, 5(66): 53660-53664.
14. **Lai-Jiu ZHENG**, Jing-Lu GUO, Yong-Fang QIAN, Bing DU, Ju WEI, Jun YAN, and Xiao-Qing XIONG. WATER IN SUPERCRITICAL CARBON DIOXIDE DYEING. THERMAL SCIENCE, 2015, 19(4): 1303-1306.
15. Huanda Zheng, Juan Zhang, Bu Du, Qufu Wei, **Laijiu Zheng**. Effect of treatment pressure on structures and properties of PMIA fiber in supercritical carbon dioxide fluid. Journal of Applied Polymer Science, 2015, 132(14): 41756.
16. **Lai-Jiu ZHENG**, Juan ZHANG, Bing DU, Yu-Ping ZHAO, and Fang YE. SUPERCRITICAL CO_2 FOR COLOR GRAPHIC DYEING Theoretical Insight and Experimental Verification. THERMAL SCIENCE, 2015, 19(4): 1289-1293.
17. **Lai-Jiu ZHENG**, Peng-Peng YIN, Fang YE, Ju WEI, and Jun YAN. EFFECT OF PRESSURE OF SUPERCRITICAL CARBON DIOXIDE ON MORPHOLOGY OF WOOL FIBERS DURING DYEING PROCESS. THERMAL SCIENCE, 2015, 19(4): 1299-1302.
18. **Laijiu Zheng**, Huanda Zheng, Bing Du, Ju Wei, Shihui Gao, Juan Zhang. Dyeing procedures of polyester fiber in supercritical carbon dioxide using a special dyeing frame. Journal of Engineered Fibers and Fabrics, 2015, 10(4): 37-46.
19. Zheng Huanda, Zhang Juan, Du Bing, Wei Qufu, **Zheng Laijiu**. An investigation for the performance of meta-aramid fiber blends treated in supercritical carbon dioxide fluid. Fibers and

Polymers, 2015, 16(5): 1134-1141.

20. Yan-Yan XU, **Lai-Jiu ZHENG**, Fang YE, Yong-Fang QIAN, Jun YAN, and Xiao-Qing XIONG. WATER/OIL REPELLENT PROPERTY OF POLYESTER FABRICS AFTER SUPERCRITICAL CARBON DIOXIDE FINISHING. THERMAL SCIENCE, 2015, 19(4): 1275-1279.

21. Juan ZHANG, **Lai-Jiu ZHENG**, Yu-Ping ZHAO, Jun YAN, Xiao-Qing XIONG, and Bing DU. GREEN DYEING OF COTTON FABRICS BY SUPERCRITICAL CARBON DIOXIDE. THERMAL SCIENCE, 2015, 19(4): 1285-1288.

22. Jun YAN, **Lai-Jiu ZHENG**, Bing DU, Yong-Fang QIAN, and Fang YE. DYE SOLUBILITY IN SUPERCRITICAL CARBON DIOXIDE FLUID. THERMAL SCIENCE, 2015, 19(4): 1313-1317.

23. Bing Du, **Lai-Jiu Zheng**, Qufu Wei. Screening and identification of Providencia rettgeri for brown alga degradation and anion sodium alginate/poly (vinyl alcohol)/tourmaline fiber preparation. The Journal of The Textile Institute, 2015, 106(7): 787-791.

24. Huanda Zheng, **Laijiu Zheng**. Dyeing of meta-aramid fibers with disperse dyes in supercritical carbon dioxide. Fibers and Polymers, 2014, 15(8): 1627-1634.

25. **Zheng Laijiu**, Du Bing, He Zeshou. Treatment of Wool scouring Wastewater by Immobilized Chitosan Bio-membrane. Journal of Engineered Fibers and Fabrics, 2013, 8(1): 1-5.

26. **Laijiu Zheng**, Bing Du, Lili Wang. Bio-scouring process optimization of wool fiber and wastewater utilization. Journal of the Textile Institute, 2012, 103(2): 159-165.

Organizations

1. Executive director of China Textile Engineering Society
2. Deputy director of the Hemp Textile Professional Committee in China Textile Engineering Society
3. Member of Chinese Textile Clothing Education Council
4. Director of Teaching and Education Committee of Textile in Universities of Liaoning Province