

Session I: Technology & Applications

Dyeing and Finishing Properties of polyethylene polyamine and polyvinylamine crosslinking dyes with nearly 100% fixation

Prof. Shufen Zhang

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Dr. Shufen Zhang is appointed Changjiang Scholar Professor by Chinese Ministry of Education and works in Dalian University of Technology. She holds concurrent posts of Director of Expert Committee of Dyestuff Industry Technology Innovation Strategic Union, Director of Editorial Board of "Dyestuff and Coloration", Vice Director of Editorial Board of "Fine Chemicals", Vice Director of Dyestuff Professional Committee of Chinese Chemical Society and Vice Director of Fine Chemicals Professional Committee of Chinese Chemical Society. The main research fields of professor Shufen Zhang is high-performance dyes and biomass-based dyeing and finishing specialties.



She is mainly engaged in study of high-performance environmental-friendly dyes, dyeing behavior and fundamental researches of dyeing and finishing. She innovatively designed macromolecular crosslinking dyes, macromolecular self-crosslinking dyes, polycarboxylic acid dyes and reactive dyes with high fixation, and systematically studied the design principle of molecular structures, application mechanism and high efficient application method of these dyes. She also systematically studied the salt-free dyeing method and techniques of reactive dyes.

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In the field of biomass-based chemicals, she studied the preparation and application of monosaccharide, disaccharide and polysaccharide. She designed and synthesized alkyl polyglucoside by one-step method and studied the synthesis and application method of sucrose, cationic starch, anionic starch and composite modified starch. Her research work was supported by 8 National Natural Science Foundation of China including National Science Fund for Distinguished Young Scholars and Key program of National Natural Science Foundation. Her work was also supported by Foundation of National 863 Program and several provincial or ministry level projects. Till now, she has won 10 patents home and abroad including 2 US patents. 5 Chinese patents have been authorized. 9 patent technologies are in production in different enterprises. She has published over 300 papers home and abroad, and more than 100 papers were embodied by SCI and EI. She supervised visiting scholars, post-doctors, Ph.D. and M.S. candidates and the number of the students under her supervision is all together 45.