

Department: School of Materials Science & Engineering

Professional field: Polymer materials

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Profile

Professor Shiai XU obtained his B.S. degree from Huazhong University of Science and Technology in 1988, M.S. degree from Jilin University in 1991, and Ph.D. degree from Fudan University in 1994. He worked as postdoctor and visiting scholar in the Hong Kong University of Science and Technology and the City University of Hong Kong during 1996-2002, also worked as visiting professor in Sydney University (Australia) during 2007-2008. He was elected as Shanghai Pujiang Scholar in 2011, Kunlun Scholar in 2015, and Thousand Talents of Qinghai province in 2016. He published more than 100 SCI papers, and was cited more than 1200 times. Besides, he published 7 monographs.

Research Field

Polymer composites; Lithium-ion battery materials; Modified plastics; Adhesives; Salt lake chemical engineering

Research results and selected published papers

1. "Synthesis and properties of rigid polyurethane foams synthesized from modified urea-formaldehyde resin", Construction and Building Materials, Vol.202, 718-726 (2019). (IF=4.046)
2. "Mechanical and thermal properties of poly(vinyl chloride) composites filled with carbon microspheres chemically modified by a biopolymer coupling agent", Composites Science and Technology, Vol. 172, 29-35 (2019). (IF=6.309)
3. "The effects of polybenzimidazole and polyacrylic acid modified carbon black on the anti-UV-weathering and thermal properties of polyvinyl chloride composites", Composites Science and Technology, Vol. 167, 388-395 (2018). (IF=6.309)
4. "Mechanical, thermal and flame retardant properties of magnesium hydroxide filled poly(vinyl chloride) composites: Effect of filler shape", Composites Part A-Applied Science and Manufacturing, Vol.113, 1-11 (2018). (IF=6.282)
5. "Thermal conductivity and mechanical properties of high density polyethylene composites filled with silicon carbide whiskers modified by cross-linked poly (vinyl alcohol)", Journal of Materials Science & Technology, Vol. 34 (No.12), 2407-2414 (2018-12). (IF=5.04)
6. "Effects of intumescent flame retardant system consisting of tris (2-hydroxyethyl) isocyanurate and ammonium polyphosphate on the flameretardant properties of high-density polyethylene composites", Composites Part A-Applied Science and Manufacturing, Vol. 112, 444-451 (2018-09). (IF=6.282)
7. "Modified silicon carbide whisker reinforced polybenzimidazole used for high temperature proton exchange membrane", Journal of Energy Chemistry, Vol.27 (No.3), 820-825 (2018-05). (IF=5.162)
8. "Proton conducting sulfonated poly (imide-benzimidazole) with tunable density of covalent/ionic cross-linking for fuel cell membranes", Journal of Power Sources, Vol.286, 571-579 (2015). (IF=7.467)
9. "Phosphoric acid-doped cross-linked sulfonated poly(imide-benzimidazole) for proton exchange membrane fuel cell applications", Journal of Membrane Science, 501, 220-227 (2016). (IF=7.015)
10. "Low bandgap polymers synthesized by FeCl₃ oxidative polymerization", Solar Energy Materials and Solar Cells, Vol.94(No.7), 1275-1281 (2010). (IF=6.019)