

Department: School of Chemical Engineering
 Professional field: Chemical Engineering and Technology
 E-mail: lux@ecust.edu.cn

Profile

Education

2006: PhD, Chemical Engineering, East China University of Science and Technology, China.

2001: MS, Materials Science, Hefei University of Technology, China.

1998: BS, Polymer Materials and Engineering, Hefei University of Technology, China.

Academic Experience

2007-present: Associate Professor, School of Chemical Engineering, East China University of Science and Technology, China.

2013-2014: Visiting Scholar, School of Engineering and Applied Sciences, Harvard University, USA.

2004-2007: Lecturer, East China University of Science and Technology, China.

2001-2004: Teaching Assistant, East China University of Science and Technology, China.

Research Field

1. Controlled synthesis and application development of functional polymer microspheres
2. Design, synthesis and mechanism of low surface energy materials
3. Preparation and properties of anti-corrosion coating materials

Research results and selected published papers

1. J.Q. Zhu, X. Lu*, H.Y. Yang, Z. Xin*. Vinyl polysiloxane microencapsulated ammonium polyphosphate and its application in flame retardant polypropylene. *Journal of Polymer Research*, 25:107-113 (2018)
2. C.L. Zhou, T. Liu, J. Liu, X. Lu, Y.Q. Shi, S. Zhou, Z. Xin*. Polybenzoxazine/ organoclay composite coatings with intercalated structure: relationship between solubility parameters and corrosion protection performance. *Progress in Organic coatings*, 115:188-194 (2018)
3. X. Lu, Y. Liu, W.F. Zhang, X.Y. Zhang, C.L. Zhou, Z. Xin*. Crosslinked main-chain type polybenzoxazine coatings for corrosion protection of mild steel. *Journal of Coatings Technology and Research*, 14(4): 937-944 (2017)
4. X. Lu, Y. Liu, C.L. Zhou, W.F. Zhang, Z. Xin*. Corrosion protection of hydrophobic bisphenol A-based polybenzoxazine coatings on mild steel. *RSC Advances*, 6:5805-5811 (2016)
5. X. Lu, Y.H. Hou, C.Y. Ye, J. Zha, Z. Xin*. Preparation of uniform rhodamine-B doped poly (3-glycidoxypropylsilsesquioxane) fluorescent microspheres via a sol-gel method. *Journal of Sol-Gel Science and Technology*, 77(1): 145-151 (2016)
6. W.F. Zhang, X. Lu, Z. Xin*, C.L. Zhou. Development of superhydrophobic polybenzoxazine surface with self-cleaning and reversible water adhesion properties. *RSC Advances*, 6, 106054-106063 (2016)
7. C.L. Zhou, J.P. Lin, X. Lu and Z. Xin*. Enhanced corrosion resistance of polybenzoxazine coatings by epoxy incorporation. *RSC Advances*, 6:28428-28434 (2016)
8. C.L. Zhou, X. Lu, Z. Xin*, Y.F. Zhang. Intercalated polybenzoxazine/organoclay composites with enhanced performance in corrosion resistance. *Journal of Coatings Technology and Research*, 13(1): 63-72 (2016)
9. J. Liu, X. Lu, Z. Xin*, C.L. Zhou. Surface properties and hydrogen bonds of mono-functional polybenzoxazines with different N-substituents. *Chinese Journal of Polymer Science*, 34(8): 919-932 (2016)
10. W.F. Zhang, X. Lu, Z. Xin*, C.L. Zhou. A self-cleaning polybenzoxazine/TiO₂ surface with superhydrophobicity and superoleophilicity for oil/water separation. *Nanoscale*, 7: 19476-19483 (2015)
11. Jie Zha, X. Lu, Z. Xin*. Hydrogen bonding effect on wettability of polysiloxane coatings. *Journal of Physical Chemistry Part C*, 119:420-425 (2015)
12. W.F. Zhang, X. Lu, Z. Xin*, C.L. Zhou, J. Liu. Fluorine-free superhydrophobic/ hydrophobic polybenzoxazine/TiO₂ films with excellent thermal stability and reversible wettability. *RSC Advances*, 5:55513-55519 (2015)
13. J. Liu, X. Lu, Z. Xin*, C.L. Zhou. Preparation and surface properties of transparent UV-resistant “petal effect” superhydrophobic surface based on polybenzoxazine. *Applied Surface Science*, 353:1137-1142 (2015)
14. J. Zha, X. Lu, Z. Xin*. A rational design of double layer mesoporous polysiloxane coatings for broadband antireflection. *Journal of Sol-Gel Science and Technology*, 74(3):677-684 (2015)