



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

## Profile

### Education

1994: PhD, Chemical Engineering, ECUST, China.  
1991: ME, Chemical Engineering, ECUST, China.  
1984: BE, Chemical Engineering, Dalian University of Science and Technology, China.

### Academic Experience

1999-present: ECUST, Professor.  
1997-1999: Tokyo Institute of Technology, Postdoctoral Researcher.  
1994-1997: ECUST, Associate Professor.  
1984-1989: Wuhan dyestuff factory, Chemical Engineer, Director of department of technology & development.

### Non-academic Experience

2015-present: ECUST, Vice President of ECUST.  
2006-2015: ECUST, Dean of College of Chemical Engineering.  
2004-2006: ECUST, Vice Dean of College of Chemical Engineering.  
1984-1989: Wuhan dyestuff factory, Chemical Engineer, Director of department of technology & development.

## Research Field

1. Polymer Crystallization Engineering,  
design and synthesis of new small molecule nucleating agent,  
high performance of polymer with small molecule nucleating agent  
crystallization mechanism of polymer with small molecule nucleating agent
2. Design and development of functional materials  
synthesis and application of new low surface energy materials  
synthesis and properties of functional Polysiloxane microspheres
3. Energy Chemical Industry  
development of catalyst for methanation of Syngas  
research on new technology of non-homogeneous non-glycerol by-product biodiesel

## Research results and selected published papers

- [1] Lv Y, Xin Z, Meng X, et al. Effect of La, Mg and Mo additives on dispersion and thermostability of Ni species on KIT-6 for CO methanation[J]. Applied Catalysis A: General, 2017, 543: 125-132.
- [2] Lv Y, Xin Z, Meng X, et al. Ni based catalyst supported on KIT-6 silica for CO methanation: Confinement effect of three dimensional channel on NiO and Ni particles[J]. Microporous and Mesoporous Materials, 2018, 262: 89-97.
- [3] Meng X, Jiang Z, Xin Z, Chen W, Sheng Y, Wu C. Antioxidation and mechanism of phosphites including the free phenolic hydroxyl group in polypropylene. Journal of Applied Polymer Science, 2017, 134 (15) : 44696-44701.
- [4] Lu X, Liu Y, Zhang W, Zhang X, Zhou C, Xin Z. Crosslinked main-chain-type polybenzoxazine coatings for corrosion protection of mild steel[J]. Journal of Coatings Technology and Research, 2017, 14(4): 937-944.
- [5] Zhao S, Liu K, Zhou S, Shi Y, Xin Z. A novel self-dispersed  $\beta$  nucleating agent for isotactic polypropylene and its unique nucleation behavior and mechanism[J]. Polymer, 2017, 132: 69-78.
- [6] Yang Y, Xin Z, Zhao S, et al. Nucleation effects of zinc adipate as  $\beta$ -Nucleating agent in ethylene-propylene block copolymerized polypropylene[J]. Journal of Polymer Research, 2017, 24 (9): 143.
- [7] Peng X, Xin Z, Zhao S, et al. Unique crystallization behavior of isotactic polypropylene in the presence of l - isoleucine and its inhibition and promotion mechanism of nucleation[J]. Journal of Applied Polymer Science, 2018, 135(10): 45956.
- [8] Gu J, Gao Y, Xu X, Wu J, Yu L, Xin Z, Sun S. Biodiesel production from palm oil and mixed dimethyl/diethyl carbonate with controllable cold flow properties[J]. Fuel, 2018, 216: 781-786.
- [9] Zhou C, Liu T, Liu J, Lu X, Shi Y, Zhou S, Xin Z. Polybenzoxazine/organoclay composite coatings with intercalated structure: Relationship between solubility parameters and corrosion protection performance[J]. Progress in Organic Coatings, 2018, 115: 188-194.
- [10] 周长路, 辛忠. 聚苯并噁嗪功能表面的构筑、性能与应用. 化学进展. 2018. DOI:10.7536/PC171008
- [11] 张雪英, 陆馨, 张芮, 周长路, 辛忠. 二胺型聚苯并噁嗪涂层在低碳钢表面的防腐蚀性能研究. 华东理工大学学报(自然科学版). 2017, 43(5): 606-611.
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- [13] 孙士宝, 李宇, 赵世成, 辛忠. 原位添加 $\alpha$ 晶成核剂对高熔体强度聚丙烯性能的影响. 工程塑料应用, 2017, 45(5): 114-119.
- [14] 张怡, 赵世成, 周帅, 石尧麒, 辛忠. 取代芳基磷酸酯钠盐成核剂的晶体结构与聚丙烯附生结晶的过程. 石油化工, 2017, 46(1): 36-43.
- [15] Tao M., Xin Z., Meng X., et al. Highly dispersed nickel within mesochannels of SBA-15 for CO methanation with enhanced activity and excellent thermostability. Fuel. 2017, 188: 267-276.
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- [17] Zhou C. L., Lu Xin., Xin Z., et al. Intercalated polybenzoxazine/ organoclay composites with enhanced performance in corrosion resistance. Journal of Coatings Technology and Research. 2016, 13(1): 63-72.
- [18] Tao M., Meng X., Lv Y. H., Bian Z. C., Xin Z. Effect of impregnation solvent on Ni dispersion and catalytic properties of Ni/SBA-15 for CO methanation reaction. Fuel. 2016, 165: 289-297.
- [19] Shi Y. Q., Hu D. K., Xin Z., et al. Conformation order of poly(L-lactic acid) chains during the melt crystallization process: infrared and two-dimensional infrared correlation spectroscopy study. Journal of Materials Science. 2016, 51(10): 4880-4887.
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- [21] Lu X., Hou Y. H., Ye C. Y., Zha J., Xin Z. Preparation of uniform rhodamine B-doped poly (3-glycidoxypropylsilsesquioxane) fluorescent microspheres via a sol-gel method. Journal of Sol-Gel Science and Technology. 2016, 77(1): 145-151.
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- [29] Lu X., Hou Y. H., Zha J., Xin Z. Size-Controlled Synthesis of Monodispersed Poly (3-mercaptopropylsilsesquioxane) Microspheres by a Two-Step Sol-Gel Method. Industrial & Engineering Chemistry Research. 2014, 53(38): 14659-14663.