



所属学院 材料科学与工程学院

学科领域 材料学

邮箱 guowehong@ecust.edu.cn

个人简介

郭卫红，教授，博士生导师。华东理工大学材料学院聚合物加工研究室主任。从事聚合物合成及加工工作，致力于生物基材料、木塑复合材料、聚合物合金的低温固相成型、反应挤出以及功能材料的制备、表征以及高分子材料的再生循环再利用等研究以及丁腈橡胶、氟硅橡胶等特种橡胶制品的加工、阻尼涂料、阻燃塑料等研究。被评为2012年上海市优秀技术带头人，获得2014年上海市科技进步奖、2011年上海市技术发明奖、2010年上海市技术创新奖；2009年上海市科技进步二等奖等奖励。承担国家十一五科技支撑计划、国家十二五科技支撑计划、国家自然科学基金面上项目等国家级项目以及上海市优秀技术带头人计划、上海市联盟计划等产学研项目二十余项，在国内外专业杂志发表论文150余篇，SCI/EI收录100余篇，著有专著2部，译著一部，合著教材一本，合著专著一册，申请中国发明专利54项，多项专利获得成功技术转让。

研究方向

从事聚合物合成及加工工作，致力于聚合物合金的低温固相成型、反应挤出以及功能材料的制备、表征以及高分子材料的再生循环再利用等研究，主要包括：生物质材料、聚烯烃改性、工程塑料、快干胶、水性涂料、丁腈橡胶、氟硅橡胶等特种橡胶制品的加工、阻尼涂料、阻燃塑料等领域。

研究成果及主要发表文章

1. Lihong Cheng, Yang Luo, Shuhua Ma, Weihong Guo*, Xiaohui Wang. Corrosion resistance of inorganic zinc-rich coating reinforced by Ni-coated coal fly ash. *Journal of Alloys and Compounds.* 786 (2019) 791-797
2. Lihong Cheng, Chunli Liu, Dajie Han, Shuhua Ma, Weihong Guo*, Haifeng Cai, Xiaohui Wang. Effect of graphene on corrosion resistance of waterborne inorganic zinc-rich coatings. *Journal of Alloys and Compounds.* 774 (2019) 255-264
3. Feipeng Lou, Kai Wu, Quan Wang, Zhongyu Qian, Shijuan Li and Weihong Guo. Improved flame-retardant and ceramifiable properties of EVA composites by combination of ammonium polyphosphate and aluminum hydroxide. *Polymers*, 2019, 11(1): 125-143. (SCI/EI source)
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5. Lihong Cheng, Chunli Liu, Dajie Han, Shuhua Ma, Weihong Guo*, Haifeng Cai, Xiaohui Wang. Effect of graphene on corrosion resistance of waterborne inorganic zinc-rich coatings. *Journal of Alloys and Compounds.* 774 (2019) 255-264
6. Feipeng Lou, Kai Wu, Quan Wang, Zhongyu Qian, Shijuan Li and Weihong Guo. Improved flame-retardant and ceramifiable properties of EVA composites by combination of ammonium polyphosphate and aluminum hydroxide. *Polymers*, 2019, 11(1): 125-143. (SCI/EI source)
7. Yan Wang, Radoslaw Paweł Górecki, Eugen Stamate, Kion Norrman, David Aili, Min Zuo, Weihong Guo, Claus Hélix-Nielsen, Wenjing Zhang. Preparation of super-hydrophilic polyphenylsulfone nanofiber membranes for water treatment. *RSC Adv.*, 2019, 9: 278-286.
8. Kai Wang, Zhongyu Qian, Weihong Guo*. Multi-heterojunction of SnO₂/Bi₂O₃/BiOI nanofibers: facile fabrication with enhanced visible-light photocatalytic performance [J]. *Materials Research Bulletin*. 2019, 111:202-211. (SCI/EI source)
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11. Jiawei Ren, Lei Han, Haifeng Cai, Kai Wu, and Weihong Guo*. Functional Biocomposites Based on Plasticized Starch/halloysite Nanotubes for Drug-Release Applications. *Starch - Stärke* 2018, 1700358 .DOI: 10.1002/star.201700358
12. Guixin Zhang, Yanyan Zhang, Cong Chen, and Weihong Guo. Improved Interfacial Bonding of Melamine Formaldehyde/Rice Husk Composites Using Poly(vinyl alcohol) Modification. *anoscience and Nanotechnology Letters*. Vol. 9, 2088–2094, 2017
13. Quan Wang, Tinglan Wang, Jikui Wang, Weihong Guo*, Ziming Qian, Ting Wei. Preparation of antistatic high-density polyethylene composites based on synergistic effect of graphene nanoplatelets and multi-walled carbon nanotubes. *Polymer Advanced Technology*. 2017, 10, 4129-4139. DOI: 10.1002/pat.4129
14. Weizhou Zhang, Weihong Guo, et al Synergistic effect between ammonium polyphosphate and expandablegraphite on flame-retarded poly(butylene terephthalate) 2018 Mater. Res. Express in press <https://doi.org/10.1088/2053-1591/aaae11>
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