姓名	姚明明
学历/学位	博士研究生/博士
职称/职务	教授
联系电话	13658611032
电子邮箱	chm_yaomm@ujn.edu.cn
实验室/办公室	化学楼713
主讲课程	物理化学
科研方向：	1.纳米薄膜功能材料 2.光催化及污染物降解 3.材料的腐蚀与防护
科研成果及奖励（包括项目、专利、鉴定等）（2005年以来）：	主持或主要参与的科研项目及科研成果如下： 1. 紫外红外光反射薄膜材料的研究与开发 国家863计划 2003.7-2005.12 2. 高分子网络/液晶/手征性化合物复合材料反射入射光特性研究 国家自然科学基金 2007.1-2009.12 3. 高附着力介孔结构纳米膜的研制 晶体材料国家重点实验室开放课题 2002.10-2005.6 4. 纳米氧化物复合涂层的制备及应用研究 济南大学博士基金 2006.6-2008.6 5. 微纳米复合材料的制备及应用 山东省教育厅优秀科研成果奖 2007 6. 一种在超重力场中制备纳米和纳米复合陶瓷涂层的方法 国家知识产权局授权专利 2006 7. 一种表面微孔化提高合金涂层与氧化物结合力的方法 国家知识产权局授权专利 2006
教学成果与奖励（2005年以来）：	1.高等学校基础学科建设专项资金项目：物理化学课程建设 山东省财政厅/山东省教育厅2007 2.山东省精品课程 物理化学 主讲教师 2011
代表性论文（2005年以来）：	以第一作者或通信作者发表的被SCI收录的研究论文如下：

[1] M. M. Yao, Y.D. He, D.R. Wang, W. Gao. Nano-laminated ZrO2-Al2O3 Films Prepared by Electrochemical Deposition. Electrochemical and Solid-State Letter, 2005, 8:C89-C90

[2] M. M. Yao, Y. He, W. Zhang, W. Gao. Oxidation Resistance of Boiler Steels with Al2O3-Y2O3 Nano- and Micro-composite Coatings produced by a Sol-Gel composite Process. Materials Transaction, 2005, 46: 2089-2092

[3] M. M. Yao, Y. D. He, D.R. Wang, W. Gao. The Oxidation Resistance of Fe-13Cr Alloy with Micro-laminated (ZrO2-Y2O3)/(Al2O3-Y2O3) Films. Journal of Rare Earths, 2005, 23: 559-563

[4] M. M. Yao, Y. D. He, Y.J. Gou, W. Gao.Preparation of ZrO2-Al2O3 micro-laminated Coatings on Stainless Steel and Their High Temperature Oxidation Resistance. Transactions of Nonferrous Metals Society of China, 2005, 15: 1388-1393

[5] M. M. Yao, Y. D. He, W. Zhang, W. Gao. Oxidation Resistance of Micro-laminated (ZrO2- Y2O3/ Al2O3-Y2O3) Coatings on Fe-Cr Alloys. High Temperature Materials and Processes, 2006, 25: 167-174

[6] M. M. Yao, Y. D. He, Y. Zhang, Q.X. Yang. Al2O3-Y2O3 Nano-and Micro-composite Coating on Fe-9Cr-Mo Alloy., Journal of Rare Earths, 2006, 24: 587-590

[7] M. M. Yao, Y. D. He, Y. Zhang. Nano-and Micro-composite Al2O3-Y2O3 Coatings Produced By Sol-Gel Process. Journal of Dispersion Science and Technology, 2007, 28: 219-222

[8] M. M. Yao, Y. He, D.R. Wang, W. Gao. Nano/Micro-Laminated (ZrO2–Y2O3)/(Al2O3–Y2O3)Composite Coatings and Their Oxidation Resistance. Oxidation of Metals, 2007, 68: 1-8

[9] M. M. Yao, F. Li, Y. Zhang, Y. D. He. Micro-Laminated (ZrO2–Y2O3)/(Al2O3–Y2O3) Coatings on Fe–25Cr and Their High Temperature Oxidatior Resistance. Surface Review and Letters, 2007, 14: 499-505

[10] M. M. Yao, F. Li, W. He, A Novel Method for Preparing Nano- and Microcomposite Al2O3-ZrO2 Ceramic Coatings. Journal of Dispersion Science and Technology, 2008, 29: 482-484

[11] M. M. Yao, W. He, F. Li, Two-Layer Nano-Oxide Composite Films on Fe-18Cr Alloys. Journal of Dispersion Science and Technology, 2008, 29: 910-913

[12] J. Li, M. M. Yao, Y. Zhang, H. Yang, Photo-catalytic properties of TiO2-Fe2O3-La2O3 Nano-composite films. Surface Review and Letters, 2009, 16: 315-321

[13] Y. Z. Qu, M. M. Yao, F. Li, X. H. Sun. Microstructures and Photocatalytic Propertiesof Fe3+/Ce3+ Codoped Nanocrystalline TiO2 Films. Water Air Soil Pollut 2011, 221: 13–21

[14] N. Zhan, M. M. Yao, F. Li , F. P. Lou. Microstructures and photocatalytic properties of Ag+ and La3+ surface codoped TiO2 films prepared by sol–gel method, Journal of Solid State Chemistry, 2011, 184: 2770–2775

[15] F. Li, X. L. Yin, M. M. Yao, J. Li. Investigation on F–B–S tri-doped nano-TiO2 films for the photocatalytic degradation of organic dyes. J Nanopart Res , 2011, 13: 4839–4846