IMR 中国科学院金属研究所
INSTITUTE OF METAL RESEARCH,CHINESE ACADEMY OF SCIENCES

中国科学院研究生院

简　历

姓　名：李　里

毕业院校：中国科学院金属研究所

本科院校：哈尔滨工程大学

研究方向：材料的腐蚀与防护

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个 人 简 历

个人信息

姓　　名：李 里　　性　　别：女

民　　族：汉　　籍　　贯：吉林

出生年月：1977．12　　学　　历：博士

婚姻状况：已婚

专　　业：材料学（腐蚀与防护方向）

毕业学校：中国科学院金属研究所

本科院校：哈尔滨工程大学

外语水平：英语六级　　计算机水平：国家二级

联系电话：18911106660

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教育背景

2004 年～2009 年　　**中科院金属研究所　材料学　腐蚀与防护专业获工学博士学位**

研究方向：采用复合电沉积的方法制备 Ni-Cr 纳米复合镀层并采用 SEM、XRD、TGA、EPMA、AFM 对其结构及腐蚀产物膜的结构进行研究，进而探讨该材料的抗高温腐蚀性能及 Cr 颗粒尺寸及分布对材料抗高温腐蚀性能的影响。可熟练使用 SEM、XRD、TGA、DSC、

EPMA、AFM 等设备，在读期间参与宝钢轧机牌坊表面堆焊层失效分析等横向课题，初轧机在使用过程中发现轧辊表面有黑色粉末状腐蚀产物生成，尤其以轧辊与轧机牌坊接触区域腐蚀最为严重，轧辊表面堆焊层的提前失效，严重影响了轧机的正常运行。就工况条件进行现场分析后，主要对表面堆焊层的摩擦腐蚀，在冷却水环境中发生的电化学行为腐蚀以及 150℃温度下的水蒸气腐蚀行为进行分析。

2001 年～2004 年　　**哈尔滨工程大学 材料学 腐蚀与防护专业 获工学硕士学位**

研究方向：采用热扩散的方法，在 K438 高温合金表面制备了 Al-Si 涂层，经 1000℃，500h 高温氧化性能试验，通过 SEM，XRD，EDAX,OM 等对试样表面、截面观察分析，讨论渗铝硅涂层的抗高温腐蚀性能，并对硅的作用机理进行探讨。课题研究期间，多次与沈阳金属研究所、葫芦岛船厂、沈阳黎明航空发动机公司、航空 621 所等科研院所进行技术交流和协作，了解高温涂层的发展现状、应用前景和研究热点。

1996 年～2000 年　　**哈尔滨工程大学 化学工程系 化学工程与工艺专业 获工学学士学位**

工作经历

2009 年 12 月～2012 年　深圳海洋王照明工程有限公司 研发工程师

工作职责：

1) 针对性的学习和理解抗腐蚀材料的基本原理、产生的背景和发展历程，实地调研和求证抗腐蚀材料存在的问题和原因

2) 304、316 不锈钢的耐腐蚀性能及点蚀机理，不同工艺处理对其耐蚀性能的研究

3) 深入研究了耐蚀钢的发展以及应用前景

4) 通过文献、研讨会、会议、会展等多种形式了解客户目前及未来需求，找到客户需求与抗腐蚀材料的差距点

5) 动态跟踪国内外抗腐蚀材料的发展状态和趋势，依据差距点，通过运用基础科学原理和方法，将其整合到解决抗腐蚀的瓶颈问题

6) 设计研究方案，合理选择技术路线，通过不同表面处理工艺，开发和改进抗盐、雾等腐蚀材料的性能

工作业绩：

1) 规划热浸、微弧氧化表面改性方案

2) 提高不锈钢、铝合金在海洋性气候应用的耐蚀性能

3) 灯具应用中聚苯硫醚的热疲劳问题

4) 申报材料表面改性专利 7 项

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RESUME

Personal Information:

Name:	Lili	Date of Birth:	12/5/1977
Sex:	female	Marital Status:	married
Mobile:	18911106660	E-mail:	liliwhitesnow@163.com

Education Background:

2004.8-2009.6 Institute of Metal Research，Chinese Academy of Science(IMR，CAS) For Doctor of Corrosion Science and Protection

Ni-Cr nanocomposite coatings prepared by electrodeposition were discussed by using SEM, XRD, TGA, EPMA, AFM. Its structure and the structure of the corrosion product film were studied. Size and distribution of Cr particle in the composite have great effect on the corrosion resistance. During this period, finished failure analysis and other corrosion issues on mill surface layer in Bao Steel. Black powder was formed on that roll surface and the corrosion is more serious in the contacting area between roll and mill arch. The failure of roll seriously affected the normal operation of the mill After analysing the working conditions, the friction resistance、electrochemical behavior in the cooling water and water vapor corrosion behavior at 150 ℃ were discussed.

2001.9-2004.8 HarBin engineering University Master of Corrosion Science and Protection

The Al-Si coating was prepared on the blade material (K438 superalloy) through thermal diffusion. High temperature corrosion resistance and the role of silicon was discussed by using SEM，XRD，EDAX,OM . At this period, We have technical cooperation with Institute of Metal Research in Shenyang、621Aviation Institute、Shenyang AERO-ENGINE Cooperation and Huludao shipyard to learn the development and prospects of corrosion resistance coatings

1996.8-2000.7 HarBin engineering University Bachelor of Chemistry

Individual Abilities:

Language: Be familiar with the relevant professional literature in English and able to write professional papers in English

English level: CET6 ,

Computer: Familiar with Windows operating system, Word, Excel, PowerPoint, Origin and other office software ; Fortran programming language, National computer test band 2

Personality: Be engaged in surface modification and corrosion resistance in IMR and have cooperation and communication with different team

Familiar with SEM, AFM and other experiment methods

Work Experience:

2009 - Now Ocean King Lighting Technology Co., Ltd.

Dept. Private **Position** Senior Researchers Fellow

Responsibility:

1) Learning the basic principles, background and development of corrosion-resistant materials

2) Finding the gap between the customer requirement and materials through literature, seminars, conferences, exhibitions and other forms to understand customer requirements current and in the future

3) Solving the corrosion problem through scientific principles and methods

4) Improving corrosion-resistance of materials by designing reasonable technical route and using different surface treatment.

Achievement:

1) Design hot-dip, micro-arc oxidation surface modification program

2) Improve corrosion resistance of stainless steel and aluminum alloy in the maritime

3) The thermal fatigue of PPS

4) Reported seven patents