***ADVANCES IN
CORROSION SCIENCE
AND TECHNOLOGY
VOLUME 6***

ADVANCES IN CORROSION SCIENCE AND TECHNOLOGY

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PREFACE

This series was organized to provide a forum for review papers in the area of corrosion. The aim of these reviews is to bring certain areas of corrosion science and technology into a sharp focus. The volumes of this series are published approximately on a yearly basis and each contains three to five reviews. The articles in each volume are selected in such a way as to be of interest both to the corrosion scientists and the corrosion technologists. There is, in fact, a particular aim in juxtaposing these interests because of the importance of mutual interaction and interdisciplinarity so important in corrosion studies. It is hoped that the corrosion scientists in this way may stay abreast of the activities in corrosion technology and *vice versa*.

In this series the term "corrosion" is used in its very broadest sense. It includes, therefore, not only the degradation of metals in aqueous environment but also what is commonly referred to as "high-temperature oxidation." Further, the plan is to be even more general than these topics; the series will include all solids and all environments. Today, engineering solids include not only metals but glasses, ionic solids, polymeric solids, and composites of these. Environments of interest must be extended to liquid metals, a wide variety of gases, nonaqueous electrolytes, and other nonaqueous liquids. Furthermore, there are certain complex situations such as wear, cavitation, fretting, and other forms of degradation which it is appropriate to include. At suitable intervals certain of the review articles will be updated as the demands of technology and the fund of new information dictate.

Another important aim of this series is to attract those in areas peripheral to the field of corrosion. Thus, physicists, physical metallurgists, physical chemists, and electronic scientists all can make very substantial contributions to the resolution of corrosion problems. It is hoped that these reviews will make the field more accessible to potential contributors from these other areas. Many of the phenomena in corrosion are so complex that

it is impossible for reasonable progress to be made without more serious and enthusiastic interdisciplinary interest.

This series, to some extent, serves as a “dynamic” handbook. It is well known that preparing a handbook is a long, tedious process and parts become out of date by the time the final volume is published. Furthermore, certain subjects become out of date more quickly than others. Finally, in a handbook it is never possible to prepare the individual discussions with sufficient detail and visual material to be properly useful to the reader. It is hoped that the format of this series serves to overcome some of these difficulties.

In addition to the discussion of scientific and technological phenomena the articles in this series will also include discussions of important techniques which should be of interest to corrosion scientists.

M. G. FONTANA
R. W. STAEHLE

CONTENTS

Chapter 1

Protection of Superalloys for Turbine Application

D. Chatterji, R. C. DeVries, and G. Romeo

Introduction.....	1
Protection System Selection.....	2
Service Requirements.....	3
Alloy Substrate	4
Protection Systems	5
Classification	6
Diffusion Coatings	7
Overlay Claddings.....	8
Ceramic Barriers.....	10
Processing Techniques	10
HIP Cladding	11
Hot Dipping	16
Hot Metal Spraying	16
Slurry Coating.....	17
Electrophoresis	18
Electroplating	18
Metalliding.....	19
Vapor Deposition	20
Sputtering.....	21
Glow Discharge Impregnation	21
Pack Cementation.....	21
Pack Coatings: Fundamental Aspects	27
Stability of Aluminide Phases	28
Identification of Phases	32
Mass Transfer in Aluminide Phases.....	33

Vapor Phase Reactions and Processes	36
Mechanisms of Coating Formation	41
General Comments	46
Coating Degradation	51
Degradation Mechanisms	52
General Comments	65
Testing and Inspection	68
Coating Performance	69
Oxidation Resistance	70
Hot Corrosion Resistance	74
Mechanical Properties	77
Conclusions and Recommendations	80
References	82

Chapter 2

Hydrogen Embrittlement and Stress Corrosion Cracking of Uranium and Uranium Alloys

Nicholas J. Magnani

Introduction	89
Polymorphism in Uranium	90
Phase Transformations in Uranium Alloys	90
Embrittlement and Cracking Trends	93
Systems that Embrittle and/or Stress Corrosion Crack	94
Uranium	94
Uranium–Titanium Alloys	100
Uranium–Molybdenum Alloys	107
Uranium–Niobium Alloys	115
Uranium–Niobium–Zirconium Alloys	124
Polynary Alloys	131
Effect of the Environment on Embrittlement and Stress Corrosion Cracking in Uranium and Uranium Alloys	134
Gases	134
Electrolytes	138
Effect of Temperature	142
The Effects of Metallurgical Parameters on Embrittlement and Stress Corrosion Cracking	142
Heat Treatment	142
Cold Work	144

Surface Condition.....	144
Grain Size	146
Specimen Orientation.....	146
Impurities.....	148
Mechanisms.....	149
Hydride Formation.....	149
Anodic Dissolution.....	151
Oxide Stress Generation.....	152
Protective Coatings.....	153
Oxides.....	154
Organic.....	154
Metallic	155
Summary	156
References	157

Chapter 3

The Polarization Resistance Technique for Measuring Corrosion Currents

Florian Mansfeld

Historic Development	163
Derivation of Basic Equations	170
The Constant in the Equation.....	178
Theoretical Values	178
Theoretical Polarization Curves for Different Combinations of Tafel Slopes	180
Experimental Determination of the Constant B	181
Errors due to Uncertainty of the Value of the Tafel Slopes	188
The Question of Linearity	188
Limitations and Problems	199
Contribution from Additional Redox Reactions	199
Effect of Electrolyte Resistance.....	207
Chemical Corrosion	216
Experimental Techniques and Instrumentation	218
Laboratory Experiments	218
Corrosion Rate Meters.....	229
Applications of Polarization Resistance Technique	234
Related Techniques.....	246
The Technique of Engell	246

The Technique of Barnartt	249
Impedance Techniques.....	250
The Method of Oldham and Mansfeld	250
The Methods of Mansfeld	253
References Related to the Polarization Resistance Technique	259
Related References	262
 Index.....	 263