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E. McCafferty

Surface Chemistry of Aqueous Corrosion Processes

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E. McCafferty
Alexandria, VA
USA

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Preface

This communication utilizes a surface chemistry/physical chemistry approach toward the study of aqueous corrosion processes. Topics included are acid–base properties of surface oxide films, capillarity and corrosion, corrosion inhibition, metal/polymer adhesion, formation of water films on the iron oxide surface, passivity of Fe–Cr and Fe–Cr–Ni alloys, the relationship between the isoelectric point and the potential of zero charge for passive metals, and the uptake of chloride ions and the pitting of aluminum.

Alexandria, VA, USA, 2015

E. McCafferty

Contents

1 Acid-Base Properties of Surface Oxide Films	1
Introduction	1
Surface Hydroxyl Groups	1
Nature of Acidic and Basic Surface Sites	3
Determination of Isoelectric Points of Metal Oxides and Oxide Films	4
Streaming Potential Measurement	5
Contact Angle Measurements	5
Surface Reaction Method of Simmons and Beard	8
Ionic Interaction Model of Parks	10
XPS Correlation Method	12
Measurement of Near-Surface Forces	15
Numerical Values of Isoelectric Points	15
Surface Charge of Oxide Films	16
Pitting of Aluminum	16
Adsorption of Cl^- on Aluminum	17
Electrode Kinetics of Pit Initiation on Aluminum	18
Pitting Potential of Aluminum as a Function of PH	20
Pitting Potential of Aluminum as a Function of Cl^- Concentration	21
Acid-Base Interactions in Metal/Polymer Adhesion	23
Introduction	23
Theories of Polymer Adhesion	23
Acid-Base Nature of Organic Polymers	24
Characterization of the Acid-Base Properties of Polymers	25
Metal/Polymer Adhesion Tests	28
Wet Adhesion	31
Acid-Base Effects in Corrosion Inhibition	31
General Effect of Oxide Films	31
Mechanisms of Interaction with Oxide Films	33
Interaction of Inhibitors with Hydroxylated Oxide Films	33

Chelating Compounds as Corrosion Inhibitors	33
Hard and Soft Acids and Bases	35
Interaction of Cations with Oxide Films	38
Relationship Between the Isoelectric Point (pH_{pzc}) and the Potential of Zero Charge (E_{pzc}) for Passive Metals	39
General Remarks	39
Measurement of Potentials of Zero Charge for Passive Metals . . .	41
Potential Drop in the Metal/Oxide/Electrolyte System	41
Space Charge Side of the Oxide/Solution Interface	42
Solution Side of the Oxide/Solution Interface	44
Numerical Evaluation	48
Summary	49
References	49
2 Capillarity and Corrosion	55
Introduction	55
Capillarity	55
Application to Organic Coatings	57
Young and Laplace Equation	59
Force Between Glass Plates	60
Application to Poultice Corrosion	60
Application to White Rusting	62
References	62
3 A Recent Model of Passivity for Fe-Cr and Fe-Cr-Ni Alloys	63
Fe-Cr Alloys	63
Fe-Cr-Ni Alloys	66
References	69
4 Uptake of Chloride Ions and the Pitting of Aluminum	71
Introduction	71
Sequence of Steps	71
XPS Studies	72
Formation of Blisters	73
Localized Corrosion Cells	74
References	75
5 Formation of Water Films on the Iron Oxide Surface	77
Introduction	77
Experimental	77
Results and Discussion	78
Formation of Liquid-Like Layers	81
References	83

6 Corrosion Inhibition by Fluorinated Aliphatic Compounds	85
Introduction	85
Fluorinated Carboxylic Acids and Amines	85
Experimental Results	87
Suggestions for Further Work	89
References	89