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and Nano-scratch Tests"; "6. Morphology"; "6.1 Electron Microscopy"; "6.2 Atomic Force Microscopy"; "6.3 Contact Angle"; "7. Electrochemical and Corrosion Analyses"; "7.1 Cathodic and Anodic Polarization"; "7.2 Exposure Tests"; "7.3 Accelerated Weathering"; "8. Microbial and Anti-fouling Characteristics"; "References"; "Thermally Stable Coatings for the Corrosion Protection of Magnesium Alloys: Double Layered Coatings Consisting of a Nanoparticulate Primer and a Sol-Gel Sealing"; "Abstract"; "Introduction"; "Application of Nanoparticulate Coatings"; "Application of Sol-Gel Sealings"; "Salt Spray Tests"; "Conclusion"; "Acknowledgment"; "References"; "Sol-Gel Enhanced Ni-P Composite Coatings"; "Abstract"; "1 Introduction"; "2 Experimental"; "3 Influence of Processing Parameters on Ni-P-TiO<sub>2</sub> Composite Coatings"; "3.1 The Effects of Dripping Rates of TiO<sub>2</sub> Sol"; "3.1.1 Surface and Cross-Sectional Morphologies"; "3.1.2 Phase analysis"; "3.1.3 Mass Gains of Ni-P-TiO<sub>2</sub> Composite Coatings"; "3.1.4 Micro-hardness of Ni-P-TiO<sub>2</sub> Composite Coatings"; "3.1.5 Wear resistance"; "3.1.6 Corrosion resistance"; "3.1.7 Summary for the Effects of Dripping Rate"; "3.2 The Effects of Concentration of TiO<sub>2</sub> Sol"; "3.2.1 The Effects of Sol Concentration on the Surface and Cross-Sectional Morphologies of the Coatings"; "3.2.2 The Effects of Sol Concentration on the Phase Structures of the Coatings"; "3.2.3 The Effects of Concentration on the Deposition Mass Gains of the Coatings"; "3.2.4 The Effects on Micro-hardness of the Coatings"; "3.2.5 Wear Resistance of the Novel Ni-P-TiO<sub>2</sub> Composite Coatings"; "3.2.6 Corrosion Resistance"; "3.2.7 Summary"

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