

# Santiago Fajardo

## List of Publications by Year in descending order

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Version: 2024-02-01

44  
papers

2,953  
citations

218677

26  
h-index

265206

42  
g-index

45  
all docs

45  
docs citations

45  
times ranked

2346  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fundamentals and advances in magnesium alloy corrosion. <i>Progress in Materials Science</i> , 2017, 89, 92-193.	32.8	1,321
2	Effect of impurities on the enhanced catalytic activity for hydrogen evolution in high purity magnesium. <i>Electrochimica Acta</i> , 2015, 165, 255-267.	5.2	149
3	Electrochemical study on the corrosion behaviour of a new low-nickel stainless steel in carbonated alkaline solution in the presence of chlorides. <i>Electrochimica Acta</i> , 2014, 129, 160-170.	5.2	129
4	The Source of Anodic Hydrogen Evolution on Ultra High Purity Magnesium. <i>Electrochimica Acta</i> , 2016, 212, 510-521.	5.2	86
5	Introductory lecture on corrosion chemistry: a focus on anodic hydrogen evolution on Al and Mg. <i>Faraday Discussions</i> , 2015, 180, 11-33.	3.2	76
6	Gravimetric Method for Hydrogen Evolution Measurements on Dissolving Magnesium. <i>Journal of the Electrochemical Society</i> , 2015, 162, C693-C701.	2.9	74
7	Corrosion inhibition mechanism of phosphates for early-age reinforced mortar in the presence of chlorides. <i>Cement and Concrete Composites</i> , 2015, 61, 1-6.	10.7	72
8	Comparative study of three sodium phosphates as corrosion inhibitors for steel reinforcements. <i>Cement and Concrete Composites</i> , 2013, 43, 31-38.	10.7	71
9	Effect of Mn additions on the corrosion behaviour of TWIP Fe-Mn-Al-Si austenitic steel in chloride solution. <i>Corrosion Science</i> , 2019, 154, 246-253.	6.6	71
10	Corrosion behaviour of a new low-nickel stainless steel embedded in activated fly ash mortars. <i>Cement and Concrete Composites</i> , 2011, 33, 644-652.	10.7	65
11	Pitting corrosion inhibition of 304 stainless steel in NaCl solution by three newly synthesized carboxylic Schiff bases. <i>Corrosion Science</i> , 2019, 160, 108130.	6.6	59
12	Corrosion behaviour of a new low-nickel stainless steel in saturated calcium hydroxide solution. <i>Construction and Building Materials</i> , 2011, 25, 4190-4196.	7.2	58
13	Electrochemical characterization of organic coatings for protection of historic steel artefacts. <i>Journal of Solid State Electrochemistry</i> , 2010, 14, 453-463.	2.5	53
14	Understanding the enhanced rates of hydrogen evolution on dissolving magnesium. <i>Electrochemistry Communications</i> , 2019, 104, 106482.	4.7	48
15	Low-nickel stainless steel passive film in simulated concrete pore solution: A SIMS study. <i>Applied Surface Science</i> , 2010, 256, 6139-6143.	6.1	46
16	Copper deterioration: causes, diagnosis and risk minimisation. <i>International Materials Reviews</i> , 2010, 55, 99-127.	19.3	42
17	Corrosion behaviour of a Low Ni austenitic stainless steel in carbonated chloride-polluted alkali-activated fly ash mortar. <i>Cement and Concrete Research</i> , 2014, 55, 49-58.	11.0	41
18	Organic corrosion inhibitor mixtures for reinforcing steel embedded in carbonated alkali-activated fly ash mortar. <i>Construction and Building Materials</i> , 2012, 35, 30-37.	7.2	38

#	ARTICLE	IF	CITATIONS
19	The role of the beta-Mg <sub>17</sub> Al <sub>12</sub> phase on the anomalous hydrogen evolution and anodic dissolution of AZ magnesium alloys. <i>Corrosion Science</i> , 2020, 165, 108384.	6.6	38
20	Low energy SIMS characterization of passive oxide films formed on a low-nickel stainless steel in alkaline media. <i>Applied Surface Science</i> , 2014, 288, 423-429.	6.1	37
21	Anomalous hydrogen evolution on AZ31, AZ61 and AZ91 magnesium alloys in unbuffered sodium chloride solution. <i>Corrosion Science</i> , 2019, 146, 163-171.	6.6	37
22	A kinetic model explaining the enhanced rates of hydrogen evolution on anodically polarized magnesium in aqueous environments. <i>Electrochemistry Communications</i> , 2017, 84, 36-39.	4.7	35
23	A prediction study of hydroxyapatite entrapment ability in concrete. <i>Construction and Building Materials</i> , 2010, 24, 2646-2649.	7.2	32
24	Corrosion rate and corrosion product characterisation using Raman spectroscopy for steel embedded in chloride polluted fly ash mortar. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2013, 64, 372-380.	1.5	32
25	The Evolution of Anodic Hydrogen on High Purity Magnesium in Acidic Buffer Solution. <i>Corrosion</i> , 2017, 73, 482-493.	1.1	31
26	Kinetic Study of Formate Compounds Developed on Copper in the Presence of Formic Acid Vapor. <i>Journal of the Electrochemical Society</i> , 2008, 155, C578.	2.9	27
27	Applications of electrokinetic phenomena in materials science. <i>Journal of Solid State Electrochemistry</i> , 2014, 18, 293-307.	2.5	19
28	Reaction between sodium monofluorophosphate and portlandite and impact on steel reinforcement corrosion inhibition. <i>Construction and Building Materials</i> , 2012, 37, 46-50.	7.2	18
29	Anodic activation of Mg in the presence of In <sup>3+</sup> ions in dilute sodium chloride solution. <i>Electrochimica Acta</i> , 2019, 293, 199-210.	5.2	17
30	An XPS study of tarnishing of a gold mask from a pre-Columbian culture. <i>Corrosion Science</i> , 2008, 50, 1785-1788.	6.6	16
31	Experimental Apparent Stern-Geary Coefficients for AZ31B Mg Alloy in Physiological Body Fluids for Accurate Corrosion Rate Determination. <i>Metals</i> , 2021, 11, 391.	2.3	16
32	Corrosion resistance of pulsed laser modified AZ31 Mg alloy surfaces. <i>Journal of Magnesium and Alloys</i> , 2022, 10, 756-768.	11.9	16
33	Investigating the Effect of Ferrous Ions on the Anomalous Hydrogen Evolution on Magnesium in Acidic Ferrous Chloride Solution. <i>Journal of the Electrochemical Society</i> , 2018, 165, C916-C925.	2.9	15
34	Influence of chromium on the passivity of thermo-mechanically processed high-Mn TWIP steels. <i>Applied Surface Science</i> , 2020, 513, 145852.	6.1	15
35	Corrosion behaviour of resistance-spot-welded high-Mn austenitic TWIP steel. <i>Corrosion Engineering Science and Technology</i> , 2021, 56, 50-59.	1.4	12
36	A Critical Review of the Application of Electrochemical Techniques for Studying Corrosion of Mg and Mg Alloys: Opportunities and Challenges. , 0, , .		11

#	ARTICLE	IF	CITATIONS
37	pH evolution around the AZ31/Steel galvanic couple under gelled-electrolytes: A numerical and experimental study. <i>Corrosion Science</i> , 2021, 178, 109061.	6.6	10
38	Corrosion of Steel Embedded in Fly Ash Mortar Using a Transmission Line Model. <i>Journal of the Electrochemical Society</i> , 2014, 161, E3158-E3164.	2.9	8
39	Corrosion Behaviour of a New Low-Nickel Stainless Steel Reinforcement: A Study in Simulated Pore Solutions and in Fly Ash Mortars. <i>International Journal of Corrosion</i> , 2012, 2012, 1-8.	1.1	4
40	Effect of Magnesium Addition and High Energy Processing on the Degradation Behavior of Iron Powder in Modified Hanks™ Solution for Bioabsorbable Implant Applications. <i>Metals</i> , 2022, 12, 78.	2.3	2
41	Monitoring steel microbiologically induced corrosion using a new electrochemical cell. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2015, 66, 465-471.	1.5	1
42	Titanium Anodization Efficiency Through Real-Time Gravimetric Measurement of Oxygen Evolution. <i>Journal of the Electrochemical Society</i> , 2020, 167, 061507.	2.9	1
43	Aspectos cinéticos de la corrosión y fenómenos de pasividad. , 0, , 11-32.		1
44	Analysis of Copper Diffusion Processes Using Impedance Data. <i>ECS Transactions</i> , 2008, 15, 215-219.	0.5	0