

Sannakaisa Virtanen

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

246
papers

9,373
citations

46
h-index

87
g-index

263
ext. papers

10,807
ext. citations

5
avg, IF

6.6
L-index

#	Paper	IF	Citations
246	Influence of bovine serum albumin on biodegradation behavior of pure Zn. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2022 , 110, 185-194	3.5	5
245	Influence of the microstructural homogeneity on the high-temperature oxidation behavior of a single crystalline Ni-base superalloy. <i>Scripta Materialia</i> , 2022 , 207, 114301	5.6	4
244	Influence of the Co/Ni Ratio and Dendritic Segregations on the High-Temperature Oxidation Resistance of Multinary Co-Rich Superalloys at 850 °C and 1050 °C. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2022 , 53, 1552-1571	2.3	
243	Coupling Respirometric HER and ORR Monitoring with Electrochemical Measurements. <i>Electrochimica Acta</i> , 2022 , 412, 140152	6.7	0
242	Preliminary Studies for One-Step Fabrication of Metallic Iron-Based Coatings on Magnesium as Temporary Protection in Biodegradable Medical Application. <i>Frontiers in Materials</i> , 2021 , 8,	4	1
241	Effect of Steam Flow Rate and Storage Period of Superhydrophobic-Coated Surfaces on Condensation Heat Flux and Wettability. <i>Processes</i> , 2021 , 9, 1958	2.9	1
240	Multi-Method Approach to Assess the Corrosion Behavior of a Coated WE43 Mg Alloy. <i>Corrosion</i> , 2021 , 77, 209-217	1.8	0
239	Anodic ZnO Microsheet Coating on Zn with Sub-Surface Microtrenched Zn Layer Reduces Risk of Localized Corrosion and Improves Bioactivity of Pure Zn. <i>Coatings</i> , 2021 , 11, 486	2.9	0
238	Corrosion behavior of biodegradable metals in two different simulated physiological solutions: Comparison of Mg, Zn and Fe. <i>Corrosion Science</i> , 2021 , 182, 109278	6.8	25
237	A One-Pot Universal Approach to Fabricate Lubricant-Infused Slippery Surfaces on Solid Substrates. <i>Advanced Functional Materials</i> , 2021 , 31, 2101090	15.6	14
236	Effect of E. coli biofilm formation and removal on passive films on AISI 316L during fermentation processes. <i>Corrosion Science</i> , 2021 , 185, 109430	6.8	2
235	Respirometric In Situ Methods for Real-Time Monitoring of Corrosion Rates: Part II. Immersion. <i>Journal of the Electrochemical Society</i> , 2021 , 168, 011502	3.9	7
234	Corrosion Behavior of Anodic Self-Ordered Porous Oxide Layers on Stainless Steel. <i>Journal of the Electrochemical Society</i> , 2021 , 168, 021507	3.9	5
233	Tuning of the Mg Alloy AZ31 Anodizing Process for Biodegradable Implants. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 12866-12876	9.5	14
232	Electrophoretic deposition of composite coatings based on alginate matrix/45S5 bioactive glass particles doped with B, Zn or Sr. <i>Surface and Coatings Technology</i> , 2021 , 418, 127183	4.4	2
231	Corrosion behavior of a slippery liquid infused porous surface on anodized stainless steel. <i>Materials Letters</i> , 2021 , 296, 129892	3.3	5
230	Metals for joint replacement 2021 , 65-122		1

229	On the High-Temperature Oxidation Behavior of a Ta-Containing Quaternary Co-Base Model Alloy System with β -Microstructure - Influence of β -Volume Fraction, Surface State, and Heating Condition on Alumina Growth. <i>Oxidation of Metals</i> , 2020 , 94, 477-503	1.6	6
228	Static Wettability of Differently Mechanically Treated and Amphiphobic-Coated Aluminium Surfaces. <i>Materials</i> , 2020 , 13,	3.5	2
227	Effects of Medium pH and Preconditioning Treatment on Protein Adsorption on 45S5 Bioactive Glass Surfaces. <i>Advanced Materials Interfaces</i> , 2020 , 7, 2000420	4.6	6
226	Growth Mechanisms of Oxide Scales on Two-phase Co/Ni-base Model Alloys between 800 °C and 900 °C. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 021504	3.9	11
225	Editors' Choice Respirometric in Situ Methods for Real-Time Monitoring of Corrosion Rates: Part I. Atmospheric Corrosion. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 021510	3.9	19
224	The Effect of Deposition Parameters on the Properties of CeCl ₃ and LaCl ₃ Conversion Coatings Deposited on Three Al-Based Substrates. <i>Corrosion</i> , 2020 , 76, 18-38	1.8	4
223	Effect of NaClO disinfection/cleaning on passive films on AISI 316L. <i>Corrosion Science</i> , 2020 , 165, 1084156.8	5.8	4
222	Electrodeposited white bronzes on brass: Corrosion in 3.5 % sodium chloride solution. <i>Corrosion Science</i> , 2020 , 175, 108898	6.8	5
221	High temperature oxidation behaviour of AISI 321 stainless steel with an ultrafine-grained surface at 800 °C in Ar β 0 vol.% O ₂ . <i>Corrosion Science</i> , 2020 , 163, 108282	6.8	12
220	Correlative Nano-Computed Tomography and Focused Ion-Beam Sectioning: A Case Study on a Co-Base Superalloy Oxide Scale. <i>Advanced Engineering Materials</i> , 2020 , 22, 1900823	3.5	3
219	Cu β MoS ₂ Superhydrophobic Coating by Composite Electrodeposition. <i>Coatings</i> , 2020 , 10, 238	2.9	8
218	Correlative 3D Characterization of High Temperature Oxide Scales on Co-Base Superalloys Using Nano-CT and FIB/SEM Tomography. <i>Microscopy and Microanalysis</i> , 2019 , 25, 390-391	0.5	
217	Iron surface functionalization system - Iron oxide nanostructured arrays with polycaprolactone coatings: Biodegradation, cytocompatibility, and drug release behavior. <i>Applied Surface Science</i> , 2019 , 492, 669-682	6.7	8
216	Influence of Co to Ni ratio in β -strengthened model alloys on oxidation resistance and the efficacy of the halogen effect at 900 °C. <i>Corrosion Science</i> , 2019 , 156, 84-95	6.8	27
215	Influence of the microstructure on the corrosion behaviour of cast Mg-Al alloys. <i>Corrosion Science</i> , 2019 , 155, 195-208	6.8	29
214	Electrochemical and corrosion study of as-cast Ni _x Al _y intermetallic alloys: Influence of alloy composition and electrolyte pH. <i>Corrosion Science</i> , 2019 , 154, 287-304	6.8	5
213	Electrophoretic deposition of gelatine nanoparticle/chitosan coatings. <i>Electrochimica Acta</i> , 2019 , 307, 318-325	6.7	17
212	Electrochemical and corrosion study of as-cast Ni _x Al _y intermetallic alloys: Influence of alloy composition and electrolyte pH. <i>Corrosion Science</i> , 2019 , 150, 127-135	6.8	4

211	Influence of W Content on the Oxidation Behaviour of Ternary (γ')-Strengthened Co-Based Model Alloys Between 800 and 900 °C. <i>Oxidation of Metals</i> , 2019 , 92, 541-560	1.6	9
210	Oxide Dispersion Strengthened Bond Coats with Higher Alumina Content: Oxidation Resistance and Influence on Thermal Barrier Coating Lifetime. <i>Oxidation of Metals</i> , 2019 , 92, 167-194	1.6	6
209	In Vitro Osteocompatibility and Enhanced Biocorrosion Resistance of Diammonium Hydrogen Phosphate-Pretreated/Poly(ether imide) Coatings on Magnesium for Orthopedic Application. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 29667-29680	9.5	15
208	Fabrication of ZnO nanotube layer on Zn and evaluation of corrosion behavior and bioactivity in view of biodegradable applications. <i>Applied Surface Science</i> , 2019 , 494, 259-265	6.7	19
207	Transport mechanisms during the high-temperature oxidation of ternary γ' Co-base model alloys. <i>Npj Materials Degradation</i> , 2019 , 3,	5.7	12
206	On the material characteristics of a high carbon cast austenitic stainless steel after solution annealing followed by quenching in a CNT nanofluid. <i>International Journal of Materials Research</i> , 2019 , 110, 570-576	0.5	
205	Electrophoretic Deposition of Bioadaptive Drug Delivery Coatings on Magnesium Alloy for Bone Repair. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 8625-8634	9.5	37
204	Influence of proteins on the corrosion behavior of a chitosan-bioactive glass coated magnesium alloy. <i>Materials Science and Engineering C</i> , 2019 , 100, 706-714	8.3	17
203	Protein adsorption on magnesium and its alloys: A review. <i>Applied Surface Science</i> , 2019 , 464, 212-219	6.7	70
202	Real-Time Monitoring of Atmospheric Magnesium Alloy Corrosion. <i>Journal of the Electrochemical Society</i> , 2019 , 166, C3001-C3009	3.9	19
201	New insights into the effects of surface nanocrystallization on the oxidation of 321 austenitic stainless steel in a humid oxygen environment at 1000 °C. <i>Corrosion Science</i> , 2019 , 147, 231-245	6.8	11
200	Modification of in vitro degradation behavior of pure iron with ultrasonication treatment: Comparison of two different pseudo-physiological solutions. <i>Materials Science and Engineering C</i> , 2019 , 95, 275-285	8.3	9
199	Correlation between the surface coverage of severe shot peening and surface microstructural evolutions in AISI 321: A TEM, FE-SEM and GI-XRD study. <i>Surface and Coatings Technology</i> , 2018 , 334, 461-470	4.4	27
198	Visualizing ion transport mechanisms through oxide scales grown on mixed nickel- and cobalt-base model alloys at 900 °C using FIB-SIMS techniques. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2018 , 36, 03F116	1.3	5
197	Time-Dependent Behavior of Cation Transport through Cellulose Acetate-Cationic Polyelectrolyte Membranes. <i>Journal of the Electrochemical Society</i> , 2018 , 165, H39-H44	3.9	
196	Taguchi Design of Experiments Approach to Determine Process Parameter for the Electrophoretic Deposition of Chitosan/Bioactive Glass on Mg Alloy Substrates. <i>ECS Transactions</i> , 2018 , 82, 81-87	1	6
195	Biodegradable nanostructures: Degradation process and biocompatibility of iron oxide nanostructured arrays. <i>Materials Science and Engineering C</i> , 2018 , 85, 203-213	8.3	20
194	Early stages of scale formation during oxidation of γ' strengthened single crystal ternary Co-base superalloy at 900 °C. <i>Corrosion Science</i> , 2018 , 135, 78-86	6.8	39

193	Electrophoretic deposition of chitosan/bioactive glass/silica coatings on stainless steel and WE43 Mg alloy substrates. <i>Surface and Coatings Technology</i> , 2018 , 344, 553-563	4.4	39
192	Electrochemical and spectroscopic characterization of oxide films formed on Alloy 182 in simulated boiling water reactor environment: Effect of dissolved hydrogen. <i>Corrosion Science</i> , 2018 , 133, 204-216	6.8	5
191	A novel local drug delivery system: Superhydrophobic titanium oxide nanotube arrays serve as the drug reservoir and ultrasonication functions as the drug release trigger. <i>Materials Science and Engineering C</i> , 2018 , 82, 277-283	8.3	27
190	Carbide Fragmentation and Dissolution in a High-Carbon High-Chromium Steel Using Hot Rolling Process: Microstructure Evolution, Wear, High-Temperature Oxidation, and Chloride-Induced Corrosion Properties. <i>Corrosion</i> , 2018 , 74, 958-970	1.8	2
189	Severe shot peening of AISI 321 with 1 000 % and 1 300 % coverages: A comparative study on the surface nanocrystallization, phase transformation, sub-surface microcracks, and microhardness. <i>International Journal of Materials Research</i> , 2018 , 109, 451-459	0.5	6
188	Corrosion in Biomedical Applications 2018 , 128-133		0
187	Stress corrosion cracking initiation and short crack growth behaviour in Alloy 182 weld metal under simulated boiling water reactor hydrogen water chemistry conditions. <i>Corrosion Science</i> , 2018 , 131, 208-222	6.8	16
186	From Waste to Valuable Resource: Lignin as a Sustainable Anti-Corrosion Coating. <i>Coatings</i> , 2018 , 8, 4542-9	2.9	25
185	Combinatorial Study on Phase Formation and Oxidation in the Thin Film Superalloy Subsystems Co-Al-Cr and Co-Al-Cr-W. <i>ACS Combinatorial Science</i> , 2018 , 20, 611-620	3.9	5
184	Electrophoretic deposition of lawsone loaded bioactive glass (BG)/chitosan composite on polyetheretherketone (PEEK)/BG layers as antibacterial and bioactive coating. <i>Journal of Biomedical Materials Research - Part A</i> , 2018 , 106, 3111-3122	5.4	26
183	Thermophysical and Mechanical Properties of Advanced Single Crystalline Co-base Superalloys. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2018 , 49, 4099-4109	2.3	38
182	Albumin coatings by alternating current electrophoretic deposition for improving corrosion resistance and bioactivity of titanium implants. <i>Materials Science and Engineering C</i> , 2017 , 73, 798-807	8.3	19
181	Electrophoretic deposition and characterization of chitosan/bioactive glass composite coatings on Mg alloy substrates. <i>Electrochimica Acta</i> , 2017 , 232, 456-464	6.7	64
180	Alternating Current Electrophoretic Deposition for the Immobilization of Antimicrobial Agents on Titanium Implant Surfaces. <i>ACS Applied Materials & Interfaces</i> , 2017 , 9, 8533-8546	9.5	16
179	Developing surface pre-treatments for electrophoretic deposition of biofunctional chitosan-bioactive glass coatings on a WE43 magnesium alloy. <i>Applied Surface Science</i> , 2017 , 405, 441-448	6.7	30
178	Functionalization of steel surfaces with organic acids: Influence on wetting and corrosion behavior. <i>Applied Surface Science</i> , 2017 , 404, 326-333	6.7	26
177	Fundamentals and advances in magnesium alloy corrosion. <i>Progress in Materials Science</i> , 2017 , 89, 92-193	12.2	788
176	Protein-adsorption and Ca-phosphate formation on chitosan-bioactive glass composite coatings. <i>Applied Surface Science</i> , 2017 , 416, 454-460	6.7	23

175	Cathodic Corrosion of Magnesium Alloy AM50 in Deicing Salt Solutions During Cathodic Protection <i>Corrosion</i> , 2017 , 73, 563-582	1.8	5
174	Electrophoretic deposition of organic/inorganic composite coatings containing ZnO nanoparticles exhibiting antibacterial properties. <i>Materials Science and Engineering C</i> , 2017 , 77, 780-789	8.3	46
173	Thermal stability of nanocrystalline surface layer of AISI 321 stainless steel. <i>Vacuum</i> , 2017 , 146, 297-303	3.7	10
172	Using tapered specimens to study the effect of hydrogen and surface finish on SCC initiation in Alloy 182 under boiling water reactor conditions. <i>Corrosion Engineering Science and Technology</i> , 2017 , 52, 558-566	1.7	12
171	Influence of Electrolyte Composition (Simulated Body Fluid vs. Dulbecco's Modified Eagle's Medium), Temperature, and Solution Flow on the Biocorrosion Behavior of Commercially Pure Mg. <i>Corrosion</i> , 2017 , 73, 1413-1422	1.8	12
170	Cu-releasing bioactive glass/polycaprolactone coating on Mg with antibacterial and anticorrosive properties for bone tissue engineering. <i>Biomedical Materials (Bristol)</i> , 2017 , 13, 015001	3.5	31
169	Electrophoretic deposition of tetracycline hydrochloride loaded halloysite nanotubes chitosan/bioactive glass composite coatings for orthopedic implants. <i>Surface and Coatings Technology</i> , 2017 , 327, 146-157	4.4	40
168	Study of Transport Properties of Polyelectrolyte-Cellulose Acetate Membranes. <i>ECS Transactions</i> , 2017 , 77, 663-669	1	1
167	Corrosion mechanism of CuZn ₂₁ Si ₃ P in aggressive tap water. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2017 , 68, 42-49	1.6	8
166	Investigating the effect of salicylate salt in enhancing the corrosion resistance of AZ91 magnesium alloy for biomedical applications. <i>BioNanoMaterials</i> , 2016 , 17,		7
165	In situ investigation of high temperature corrosion of Co-based alloys in the ESEM - the very first stages 2016 , 239-240		
164	Phase Formation and Oxidation Behavior at 500 °C in a Ni-Co-Al Thin-Film Materials Library. <i>ACS Combinatorial Science</i> , 2016 , 18, 575-82	3.9	8
163	Study of the electrochemical stability of polypyrrole coating on iron in sodium salicylate aqueous solution. <i>Synthetic Metals</i> , 2016 , 221, 1-7	3.6	10
162	Protective layer formation on magnesium in cell culture medium. <i>Materials Science and Engineering C</i> , 2016 , 63, 341-51	8.3	43
161	Electrophoretic co-deposition of cellulose nanocrystals-45S5 bioactive glass nanocomposite coatings on stainless steel. <i>Applied Surface Science</i> , 2016 , 362, 323-328	6.7	16
160	Intermediate Co/Ni-base model superalloys Thermophysical properties, creep and oxidation. <i>Scripta Materialia</i> , 2016 , 112, 83-86	5.6	55
159	Corrosion, Surface Modification, and Biocompatibility of Mg and Mg Alloys 2016 , 625-628		
158	Tackling Mg alloy corrosion by natural polymer coatings-A review. <i>Journal of Biomedical Materials Research - Part A</i> , 2016 , 104, 2628-41	5.4	55

157	Cell Adhesion on Surface-Functionalized Magnesium. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 11998-2006	9.5	25
156	Accelerated Degradation Behavior and Cytocompatibility of Pure Iron Treated with Sandblasting. <i>ACS Applied Materials & Interfaces</i> , 2016 , 8, 26482-26492	9.5	43
155	The Influence of Ca ²⁺ in Deicing Salt on the Chemistry of Corrosion Products Formed on AM50 Magnesium Alloy. <i>Corrosion</i> , 2015 , 71, 703-725	1.8	3
154	In vitro study of polycaprolactone/bioactive glass composite coatings on corrosion and bioactivity of pure Mg. <i>Applied Surface Science</i> , 2015 , 355, 832-841	6.7	32
153	Localised corrosion: general discussion. <i>Faraday Discussions</i> , 2015 , 180, 381-414	3.6	25
152	Corrosion scales and passive films: general discussion. <i>Faraday Discussions</i> , 2015 , 180, 205-32	3.6	3
151	Alternating Current Electrophoretic Deposition of Bovine Serum Albumin onto Magnesium. <i>Key Engineering Materials</i> , 2015 , 654, 139-143	0.4	7
150	Corrosion of martensitic stainless steel in ethanol-containing gasoline: Influence of contamination by chloride, H ₂ O and acetic acid. <i>Corrosion Science</i> , 2015 , 98, 318-326	6.8	32
149	Isothermal aging of a β -strengthened Co-Al-W alloy coated with vacuum plasma-sprayed MCrAlY bond coats. <i>Surface and Coatings Technology</i> , 2015 , 276, 360-367	4.4	7
148	Protein interactions with corroding metal surfaces: comparison of Mg and Fe. <i>Faraday Discussions</i> , 2015 , 180, 347-60	3.6	40
147	Iron and iron-based alloys for temporary cardiovascular applications. <i>Journal of Materials Science: Materials in Medicine</i> , 2015 , 26, 138	4.5	97
146	Effect of inflammatory conditions and H ₂ O ₂ on bare and coated Ti-Bi-V surfaces: Corrosion behavior, metal ion release and Ca-P formation under long-term immersion in DMEM. <i>Applied Surface Science</i> , 2015 , 357, 101-111	6.7	20
145	Corrosion Properties of Polydopamine Coatings Formed in One-Step Immersion Process on Magnesium. <i>ACS Applied Materials & Interfaces</i> , 2015 , 7, 26758-66	9.5	64
144	Corrosion behaviour of stainless steels and a single crystal superalloy in a ternary LiCl-KCl-CsCl molten salt. <i>Corrosion Science</i> , 2015 , 90, 46-53	6.8	45
143	Electrochemical Activity and Electrical Properties of Optimized Polypyrrole Coatings on Iron. <i>Journal of the Electrochemical Society</i> , 2015 , 162, E307-E313	3.9	16
142	High-Throughput Investigation of the Oxidation and Phase Constitution of Thin-Film Ni-Al-Cr Materials Libraries. <i>Advanced Engineering Materials</i> , 2015 , 17, 1365-1373	3.5	12
141	In Situ Investigation of the Oxidation of Cobalt-Base Superalloys in the Environmental Scanning Electron Microscope. <i>Advanced Engineering Materials</i> , 2015 , 17, 1158-1167	3.5	2
140	Influence of CO ₂ exposure on pH value, electrochemical properties, and the formation of calcium-phosphate on Ti-Bi-V under adjusted in vitro conditions in DMEM. <i>Surface Science</i> , 2015 , 636, 47-53	1.8	4

139	Electrophoretic deposition of ZnO/alginate and ZnO-bioactive glass/alginate composite coatings for antimicrobial applications. <i>Materials Science and Engineering C</i> , 2015 , 55, 137-44	8.3	48
138	Electrophoretic Deposition of Nanostructured Titania-Bioactive Glass/Alginate Coatings on Stainless Steel. <i>Key Engineering Materials</i> , 2015 , 654, 159-164	0.4	1
137	Biocorrosion of TiO ₂ nanoparticle coating of Ti6Al4V in DMEM under specific in vitro conditions. <i>Applied Surface Science</i> , 2015 , 329, 356-362	6.7	9
136	Electrochemical behavior of nanostructured TiO ₂ /alginate composite coating on magnesium alloy AZ91D via electrophoretic deposition. <i>Surface and Coatings Technology</i> , 2015 , 265, 212-217	4.4	28
135	Electrophoretic deposition of cellulose nanocrystals (CNs) and CNs/alginate nanocomposite coatings and free standing membranes. <i>Colloids and Surfaces B: Biointerfaces</i> , 2014 , 118, 41-8	6	43
134	The effect of grain boundaries on high temperature oxidation of new β -strengthened CoAlWB superalloys. <i>Corrosion Science</i> , 2014 , 79, 29-33	6.8	29
133	First approach for thermodynamic modelling of the high temperature oxidation behaviour of ternary β -strengthened CoAlWB superalloys. <i>Corrosion Science</i> , 2014 , 89, 1-5	6.8	23
132	In vitro biocompatibility of CoCrMo dental alloys fabricated by selective laser melting. <i>Dental Materials</i> , 2014 , 30, 525-34	5.7	147
131	A facile and scalable method to produce superhydrophobic stainless steel surface. <i>Applied Surface Science</i> , 2014 , 311, 753-757	6.7	25
130	Influence of Ca ²⁺ in Deicing Salt on the Corrosion Behavior of AM50 Magnesium Alloy. <i>Corrosion</i> , 2014 , 70, 1008-1023	1.8	6
129	Electrophoretic Deposition of Chitosan/h-BN and Chitosan/h-BN/TiO ₂ Composite Coatings on Stainless Steel (316L) Substrates. <i>Materials</i> , 2014 , 7, 1814-1829	3.5	51
128	Electrophoretic deposition of nanostructured TiO ₂ /alginate and TiO ₂ -bioactive glass/alginate composite coatings on stainless steel. <i>Advances in Applied Ceramics</i> , 2014 , 113, 42-49	2.3	35
127	Osteogenic differentiation on DLC-PDMS-h surface. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2014 , 102, 1462-72	3.5	4
126	Dissolution control of Mg by cellulose acetate-polyelectrolyte membranes. <i>ACS Applied Materials & Interfaces</i> , 2014 , 6, 22393-9	9.5	8
125	Metals for joint replacement**Note: This chapter is an updated version of Chapter 6, from the first edition of Joint replacement technology, edited by P. A. Revell and published by Woodhead, Publishing, 2008 2014 , 81-151		4
124	Corrosion, Surface Modification, and Biocompatibility of Mg and Mg Alloys 2014 , 625-628		
123	Albumin coating on magnesium via linker molecules--comparing different coating mechanisms. <i>Colloids and Surfaces B: Biointerfaces</i> , 2013 , 103, 586-94	6	19
122	Alginate/Bioglass composite coatings on stainless steel deposited by direct current and alternating current electrophoretic deposition. <i>Surface and Coatings Technology</i> , 2013 , 233, 49-56	4.4	64

121	The effect of nickel and silicon addition on some oxidation properties of novel Co-based high temperature alloys. <i>Corrosion Science</i> , 2013 , 69, 43-49	6.8	56
120	Electrochemical investigations of magnesium in DMEM with biodegradable polycaprolactone coating as corrosion barrier. <i>Applied Surface Science</i> , 2013 , 282, 264-270	6.7	67
119	Electrophoretic deposition of nanostructured-TiO ₂ /chitosan composite coatings on stainless steel. <i>RSC Advances</i> , 2013 , 3, 11247	3.7	61
118	Corrosion properties of novel β -strengthened Co-base superalloys. <i>Corrosion Science</i> , 2013 , 66, 233-241	6.8	28
117	Electrochemical characterisation of novel β -strengthened Co-base superalloys. <i>Electrochimica Acta</i> , 2012 , 76, 275-281	6.7	12
116	Long-term corrosion study of low carbon steel coated with titanium boronitride in simulated soil solution. <i>Electrochimica Acta</i> , 2012 , 76, 312-319	6.7	10
115	Characterization of electrophoretic chitosan coatings on stainless steel. <i>Materials Letters</i> , 2012 , 66, 302-304	3.94	105
114	Biomedical coatings on magnesium alloys - a review. <i>Acta Biomaterialia</i> , 2012 , 8, 2442-55	10.8	876
113	Application of the electrochemical microcapillary technique to study intergranular stress corrosion cracking of austenitic stainless steel on the micrometre scale. <i>Corrosion Science</i> , 2012 , 55, 126-132	6.8	25
112	Non-destructive evaluation of stone-impact damages using Pulsed Phase Thermography. <i>Corrosion Science</i> , 2012 , 56, 168-175	6.8	5
111	Impact of ultrafine-grained microstructure on the corrosion of aluminium alloy AA2024. <i>Corrosion Science</i> , 2012 , 57, 209-214	6.8	105
110	Interaction of bovine serum albumin and lysozyme with stainless steel studied by time-of-flight secondary ion mass spectrometry and X-ray photoelectron spectroscopy. <i>Langmuir</i> , 2012 , 28, 16306-17	4	32
109	Chemical and physical properties of regenerative medicine materials controlling stem cell fate. <i>Annals of Medicine</i> , 2012 , 44, 635-50	1.5	54
108	Application of electrochemical noise to monitor stress corrosion cracking of stainless steel in tetrathionate solution under constant load. <i>Corrosion Science</i> , 2012 , 63, 129-139	6.8	27
107	Biodegradable Mg Alloys: Corrosion, Surface Modification, and Biocompatibility. <i>Modern Aspects of Electrochemistry</i> , 2012 , 101-125		1
106	Non-destructive detection of corrosion applied to steel and galvanized steel coated with organic paints by the pulsed phase thermography. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2012 , 63, 195-199	1.6	7
105	Influence of MWCNT dispersion on corrosion behaviour of their Mg composites. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2012 , 63, 384-387	1.6	18
104	In vitro corrosion survey of Mg ₃ Ca and Mg ₃ Zn ₂ Ca alloys with and without calcium phosphate conversion coatings. <i>Corrosion Engineering Science and Technology</i> , 2012 , 47, 365-373	1.7	19

103	Corrosion Behavior of Polypyrrole/AZ91D in Simulated Body Fluid Solutions and Its Functionalization with Albumin Monolayers. <i>Corrosion</i> , 2012 , 68, 536-547	1.8	9
102	Spectroscopy in the analysis of bacterial and eukaryotic cell footprints on implant surfaces. <i>European Cells and Materials</i> , 2012 , 24, 60-73	4.3	7
101	Degradation of Titanium and Its Alloys 2012 , 29-55		4
100	High temperature oxidation of γ -strengthened Co-base superalloys. <i>Corrosion Science</i> , 2011 , 53, 2027-2034	6.3	139
99	Effect of B and Cr on the high temperature oxidation behaviour of novel γ -strengthened Co-base superalloys. <i>Corrosion Science</i> , 2011 , 53, 2713-2720	6.8	116
98	Electrochemical polymerization and characterization of polypyrrole on MgAl alloy (AZ91D). <i>Synthetic Metals</i> , 2011 , 161, 360-364	3.6	37
97	Corrosion, Surface Modification and Biocompatibility of Mg and Mg Alloys 2011 , 409-412		3
96	Chemical vapor deposition of titanium based ceramic coatings on low carbon steel: Characterization and electrochemical evaluation. <i>Surface and Coatings Technology</i> , 2011 , 205, 5454-5463	4.4	15
95	Biodegradable Mg and Mg alloys: Corrosion and biocompatibility. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2011 , 176, 1600-1608	3.1	270
94	TEM and ToF-SIMS studies on the corrosion behavior of vanadium and chromium containing WC-Co hard metals in alkaline solutions. <i>International Journal of Refractory Metals and Hard Materials</i> , 2011 , 29, 376-383	4.1	16
93	Control of magnesium corrosion and biocompatibility with biomimetic coatings. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2011 , 96, 84-90	3.5	121
92	Corrosion of Mg alloy AZ91D in the presence of living cells. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2011 , 99, 276-81	3.5	55
91	Effect of Processing on Grain Size and Corrosion of AA2024-T3. <i>Corrosion</i> , 2011 , 67, 105001-105001-10	1.8	29
90	Optimization of electrochemical polymerization parameters of polypyrrole on MgAl alloy (AZ91D) electrodes and corrosion performance. <i>Electrochimica Acta</i> , 2011 , 56, 5347-5354	6.7	47
89	Corrosion behaviour of multiwall carbon nanotube/magnesium composites in 3.5% NaCl. <i>Electrochimica Acta</i> , 2011 , 56, 7141-7148	6.7	57
88	Oxidation kinetics of thin copper films and wetting behaviour of copper and Organic Solderability Preservatives (OSP) with lead-free solder. <i>Applied Surface Science</i> , 2011 , 257, 6481-6488	6.7	27
87	Electrochemical evaluation of the corrosion behavior of steel coated with titanium-based ceramic layers. <i>Surface and Coatings Technology</i> , 2011 , 205, 3006-3011	4.4	14
86	Poly(N-methyl aniline) thin films on copper: Synthesis, characterization and corrosion protection. <i>Thin Solid Films</i> , 2011 , 519, 5868-5874	2.2	23

85	Corrosion and passivity of metals and coatings 2011 , 3-28		1
84	Corrosion, Surface Modification, and Biocompatibility of Mg and Mg Alloys 2011 , 409-412		
83	Grain character influences on corrosion of ECAPed pure magnesium. <i>Corrosion Engineering Science and Technology</i> , 2010 , 45, 224-230	1.7	163
82	Functionalization of metallic magnesium with protein layers via linker molecules. <i>Langmuir</i> , 2010 , 26, 12044-8	4	42
81	Self-organized TiO ₂ Nanotube Arrays: Critical Effects on Morphology and Growth. <i>Israel Journal of Chemistry</i> , 2010 , 50, 453-467	3.4	79
80	Localized corrosion of ultrafine-grained Al/Mg model alloys. <i>Electrochimica Acta</i> , 2010 , 55, 1966-1970	6.7	71
79	Influence of Ca ions and temperature on the corrosion behavior of WC-Co hardmetals in alkaline solutions. <i>International Journal of Refractory Metals and Hard Materials</i> , 2010 , 28, 370-376	4.1	7
78	Modelling and analysis of the oxidation influence on creep behaviour of thin-walled structures of the single-crystal nickel-base superalloy RenN5 at 980 °C. <i>Acta Materialia</i> , 2010 , 58, 1607-1617	8.4	70
77	Anodic growth of self-ordered magnesium oxy-fluoride nanoporous/tubular layers on Mg alloy (WE43). <i>Electrochemistry Communications</i> , 2010 , 12, 796-799	5.1	30
76	Metal-assisted etching of p-type silicon under anodic polarization in HF solution with and without H ₂ O ₂ . <i>Electrochimica Acta</i> , 2010 , 55, 903-912	6.7	31
75	Porosity Tailored Growth of Black Anodic Layers on Magnesium in an Organic Electrolyte. <i>Journal of the Electrochemical Society</i> , 2009 , 156, C62	3.9	16
74	Properties of the Nanoporous Anodic Oxide Electrochemically Grown on Steel in Hot 50% NaOH. <i>Journal of the Electrochemical Society</i> , 2009 , 156, C45	3.9	27
73	Automated Analysis of Electrochemical Current Noise from Potentiostatic Conditioning of Passive Iron in Chloride-Containing Solutions. <i>ECS Transactions</i> , 2009 , 25, 157-176	1	1
72	Effect of WC grain size on the corrosion behavior of WC-Co based hardmetals in alkaline solutions. <i>International Journal of Refractory Metals and Hard Materials</i> , 2009 , 27, 806-812	4.1	73
71	Composition of corrosion layers on a magnesium rare-earth alloy in simulated body fluids. <i>Journal of Biomedical Materials Research - Part A</i> , 2009 , 88, 359-69	5.4	129
70	Effect of surface pre-treatments on biocompatibility of magnesium. <i>Acta Biomaterialia</i> , 2009 , 5, 2783-9	10.8	140
69	Electrochemical and surface analytical study of the corrosion behavior of mild steel with cathodically produced zinc phosphate coating. <i>Surface and Interface Analysis</i> , 2009 , 41, 911-917	1.5	14
68	Effect of acidic etching and fluoride treatment on corrosion performance in Mg alloy AZ91D (MgAlZn). <i>Electrochimica Acta</i> , 2009 , 55, 250-257	6.7	42

67	Steel corrosion in alkaline batteries. <i>Electrochimica Acta</i> , 2009 , 54, 5216-5222	6.7	6
66	ELECTROCHEMICAL THEORY Corrosion 2009 , 56-63		2
65	Corrosion of Biomedical Implant Materials. <i>Corrosion Reviews</i> , 2008 , 26,	3.2	27
64	ICP-MS, SKPFM, XPS, and Microcapillary Investigation of the Local Corrosion Mechanisms of WC-Co Hardmetal. <i>Journal of the Electrochemical Society</i> , 2008 , 155, C415	3.9	42
63	Metals for joint replacement 2008 , 115-162		3
62	Special modes of corrosion under physiological and simulated physiological conditions. <i>Acta Biomaterialia</i> , 2008 , 4, 468-76	10.8	213
61	Relationships between strain, microstructure and oxide growth at the nano- and microscale. <i>Surface and Interface Analysis</i> , 2008 , 40, 43-50	1.5	5
60	Detection of nanoscale β MgZn ₂ phase dissolution from an Al-Zn-Mg-Cu alloy by electrochemical microtransients. <i>Surface and Interface Analysis</i> , 2008 , 40, 1219-1225	1.5	35
59	Local electrochemical properties of laser beam-welded high-strength Al-Zn-Mg-Cu alloys. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2008 , 59, 5-13	1.6	3
58	Time-dependent electrochemical characterization of the corrosion of a magnesium rare-earth alloy in simulated body fluids. <i>Journal of Biomedical Materials Research - Part A</i> , 2008 , 85, 167-75	5.4	116
57	A novel approach for the formation of Mg(OH) ₂ /MgO nanowhiskers on magnesium: Rapid anodization in chloride containing solutions. <i>Electrochemistry Communications</i> , 2008 , 10, 288-292	5.1	42
56	Anodized titanium and stainless steel in contact with CFRP: an electrochemical approach considering galvanic corrosion. <i>Journal of Biomedical Materials Research - Part A</i> , 2007 , 82, 936-46	5.4	26
55	Influence of scandium on the pitting behaviour of Al-Zn-Mg-Cu alloys. <i>Acta Materialia</i> , 2007 , 55, 6666-6672	8.4	45
54	Influence of second phase particles on initial electrochemical properties of AA7010-T76. <i>Electrochimica Acta</i> , 2007 , 53, 2055-2059	6.7	41
53	Corrosion resistance studies on grain-boundary etched drug-eluting stents. <i>Journal of Materials Science: Materials in Medicine</i> , 2007 , 18, 1377-87	4.5	5
52	Microstructural Effects on the Corrosion Behavior of High-Strength Al-Zn-Mg-Cu Alloys in an Overaged Condition. <i>Journal of the Electrochemical Society</i> , 2007 , 154, C411	3.9	16
51	A Microelectrochemical Investigation of Alloy C22 in Chloride Solutions below the Critical Pitting Temperature. <i>Journal of the Electrochemical Society</i> , 2007 , 154, C114	3.9	6
50	An analysis of the in vivo deterioration of Co-Cr-Mo implants through wear and corrosion. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2007 , 221, 291-303	1.7	22

49	Electrochemical Behavior of Magnesium Alloy AZ31 in 0.5 M KOH Solution. <i>Electrochemical and Solid-State Letters</i> , 2007 , 10, C9		32
48	Influence of temper and surface condition on the exfoliation behaviour of high strength AlZnMgCu alloys. <i>Corrosion Science</i> , 2007 , 49, 1437-1449	6.8	89
47	Analytical characterization of the corrosion mechanisms of WC-Co by electrochemical methods and inductively coupled plasma mass spectroscopy. <i>Corrosion Science</i> , 2007 , 49, 2002-2020	6.8	101
46	Corrosion properties of laser beam joints of aluminium with zinc-coated steel. <i>Corrosion Science</i> , 2007 , 49, 4243-4258	6.8	40
45	Hydroxyapatite growth on anodic TiO ₂ nanotubes. <i>Journal of Biomedical Materials Research - Part A</i> , 2006 , 77, 534-41	5.4	239
44	Analytical Characterization of the Corrosion Mechanisms of WC-Co by Electrochemical Methods and Inductively-Coupled Plasma Mass Spectroscopy. <i>ECS Transactions</i> , 2006 , 1, 251-262	1	2
43	Metal release mechanisms in hip replacement. <i>Monthly Notices of the Royal Astronomical Society: Letters</i> , 2006 , 77, 695-6	4.3	6
42	Effect of Mo species on metastable pitting of Fe18Cr alloys: A current transient analysis. <i>Corrosion Science</i> , 2006 , 48, 1585-1607	6.8	50
41	Investigations on the passivity of iron in borate and phosphate buffers, pH 8.4. <i>Corrosion Science</i> , 2006 , 48, 3472-3488	6.8	44
40	Oxygen Reduction on Passive Steel and Cr Rich Alloys for Concrete Reinforcement 2006 , 305-310		2
39	Repassivation Kinetics of Al-Alloys for Aircraft Structures 2006 , 537-542		
38	Effect of Al on the passivity of Ti base implant alloys 2006 , 377-381		
37	The composition of the boundary region of MnS inclusions in stainless steel and its relevance in triggering pitting corrosion. <i>Corrosion Science</i> , 2005 , 47, 1239-1250	6.8	140
36	Self-organized nanotubular TiO ₂ matrix as support for dispersed Pt/Ru nanoparticles: Enhancement of the electrocatalytic oxidation of methanol. <i>Electrochemistry Communications</i> , 2005 , 7, 1417-1422	5.1	206
35	Influence of surface self-modification in Ringer's solution on the passive behavior of titanium. <i>Journal of Biomedical Materials Research - Part A</i> , 2005 , 75, 934-40	5.4	28
34	On the Stability of Passivity of Ti-Al Alloys in Acidic Environment. <i>Zeitschrift Fur Physikalische Chemie</i> , 2005 , 219, 1447-1459	3.1	6
33	Metastable and Stable Pitting Corrosion of Titanium in Halide Solutions. <i>Corrosion</i> , 2004 , 60, 643-649	1.8	18
32	Elektrochemische Korrosionsuntersuchungen an der Magnesiumlegierung AZ91: Beschreibung kritischer Parameter und deren Einfluss auf die Angriffsmechanismen auf NRC-Proben. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2004 , 55, 5-17	1.6	19

31	Passive and transpassive behaviour of CoCrMo in simulated biological solutions. <i>Electrochimica Acta</i> , 2004 , 49, 2167-2178	6.7	232
30	Investigation of the electrochemical behaviour of WC-Co hardmetal with electrochemical and surface analytical methods. <i>Surface Science</i> , 2004 , 566-568, 1240-1245	1.8	29
29	Electrochemical behavior of surface films formed on Fe in chromate solutions. <i>Corrosion Science</i> , 2003 , 45, 1405-1419	6.8	16
28	Electrochemical characterisation of passive films on Ti alloys under simulated biological conditions. <i>Electrochimica Acta</i> , 2002 , 47, 1913-1923	6.7	136
27	In situ X-ray absorption near edge structure studies of mechanisms of passivity. <i>Electrochimica Acta</i> , 2002 , 47, 3117-3125	6.7	20
26	Influence of MoO ₄ ²⁻ anion in the electrolyte on passivity breakdown of iron. <i>Corrosion Science</i> , 2001 , 43, 1165-1177	6.8	26
25	Microelectrochemical Studies on the Influence of Cr and Mo on Nucleation Events of Pitting Corrosion. <i>Journal of the Electrochemical Society</i> , 2000 , 147, 155	3.9	36
24	Characterisation of r.f. sputtered Fe ₃ O ₄ -oxide films. <i>Vacuum</i> , 1999 , 52, 477-483	3.7	7
23	Passivity of Iron in Alkaline Solutions Studied by In Situ XANES and a Laser Reflection Technique. <i>Journal of the Electrochemical Society</i> , 1999 , 146, 2097-2102	3.9	45
22	Electrochemical Behavior of Fe in Phosphate Solutions Studied by In Situ X-Ray Absorption Near Edge Structure. <i>Journal of the Electrochemical Society</i> , 1999 , 146, 4087-4094	3.9	22
21	Characterization of r.f.-sputtered iron oxide films for modeling passive films. <i>Thin Solid Films</i> , 1998 , 312, 46-60	2.2	24
20	Electrochemical Behavior of Cr ₂ O ₃ / Fe ₂ O ₃ Artificial Passive Films Studied by In Situ XANES. <i>Journal of the Electrochemical Society</i> , 1998 , 145, 791-801	3.9	80
19	Dissolution of Thin Iron Oxide Films Used as Models for Iron Passive Films Studied by In Situ X-Ray Absorption Near-Edge Spectroscopy. <i>Journal of the Electrochemical Society</i> , 1997 , 144, 198-204	3.9	42
18	Surface Enhanced Raman Spectroscopy of Iron Oxide Thin Films: Comparison with the Passive Film on Iron. <i>Journal of the Electrochemical Society</i> , 1997 , 144, 1604-1609	3.9	23
17	A surface analytical and electrochemical study on the role of cerium in the chemical surface treatment of stainless steels. <i>Corrosion Science</i> , 1997 , 39, 1897-1913	6.8	40
16	In Situ X-Ray Absorption Near-Edge Spectroscopic Study of the Cathodic Reduction of Artificial Iron Oxide Passive Films. <i>Journal of the Electrochemical Society</i> , 1996 , 143, 574-582	3.9	72
15	Transpassive Dissolution of Cr and Sputter-Deposited Cr Oxides Studied by In Situ X-Ray Near-Edge Spectroscopy. <i>Journal of the Electrochemical Society</i> , 1996 , 143, 3997-4005	3.9	64
14	Bulk Metal Oxides as a Model for the Electronic Properties of Passive Films. <i>Journal of the Electrochemical Society</i> , 1995 , 142, 3336-3342	3.9	52

13	Electrochemical characterization of new stainless Cu?Al?Sn alloys. <i>Corrosion Science</i> , 1995 , 37, 793-799	6.8	9
12	Artificial Cr- and Fe-Oxide Passive Layers Prepared by Sputter Deposition. <i>Journal of the Electrochemical Society</i> , 1995 , 142, 3067-3972	3.9	40
11	The effect of laser surface modification on the corrosion behaviour of Fe and Al base alloys. <i>Corrosion Science</i> , 1994 , 36, 1625-1633	6.8	20
10	XPS studies on passive films on amorphous Fe-Cr-(B,P)-C alloys. <i>Corrosion Science</i> , 1994 , 36, 373-384	6.8	15
9	Passivity of High Corrosion Resistant Cu-Al-Sn Alloys. <i>Journal of the Electrochemical Society</i> , 1993 , 140, 2786-2790	3.9	11
8	Studies of passive films on amorphous Fe-Cr-(B,P,C) alloys. <i>Corrosion Science</i> , 1993 , 35, 27-34	6.8	1
7	High corrosion resistance of amorphous Fe-Cr-P alloys.. <i>ISIJ International</i> , 1991 , 31, 229-232	1.7	11
6	XPS analytical characterization of amorphous alloys: Fe ₇₀ Cr ₁₀ P ₁₃ C ₇ . <i>Surface and Interface Analysis</i> , 1990 , 15, 668-674	1.5	16
5	Passivity, breakdown and repassivation of glassy Fe?Cr?P alloys. <i>Corrosion Science</i> , 1990 , 31, 333-342	6.8	17
4	Effect of metalloids on the passivity of amorphous Fe?Cr alloys. <i>Journal of the Less Common Metals</i> , 1988 , 145, 581-593		14
3	Corrosion and passivation of amorphous and crystalline Fe?Cr alloys in ethanol/water/HCl mixtures. <i>Electrochimica Acta</i> , 1987 , 32, 927-934	6.7	9
2	Overcoming Temperature-Induced Degradation of Silver Nanowire Electrodes by an Ag@SnO _x Core-Shell Approach. <i>Advanced Electronic Materials</i> , 2100787	6.4	0
1	Protective Alumina Scale Growth at 900 °C for a Ni- and Cr-Free Co-Base Model Alloy with $\sqrt{3}$ Microstructure: Synergistic Effects by Combining Shot-Peening and Halogenation. <i>Oxidation of Metals</i> , 1	1.6	0