

Yves Wouters

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.

126
papers

1,761
citations

25
h-index

36
g-index

140
ext. papers

1,951
ext. citations

2.9
avg, IF

4.48
L-index

#	Paper	IF	Citations
126	Corrosion of titanium alloys in pressurised water at 350 °C and 17.5 MPa. <i>Corrosion Science</i> , 2022 , 201, 110268	6.8	0
125	Initial stages of FeMnSiCrNi shape memory stainless steels oxidation mechanism at 800 °C. <i>Corrosion Science</i> , 2021 , 181, 109255	6.8	3
124	Modeling of Trilayered Oxide Thermally Grown on 441 Ferritic Stainless Steel at 900 °C in Synthetic Air. <i>Oxidation of Metals</i> , 2021 , 96, 31-41	1.6	2
123	FeMnSiCrNi Oxidation at 800 °C: Mechanism and Characterization of Improved Oxidation Resistance Generated by Vacuum Annealing Treatment. <i>Oxidation of Metals</i> , 2021 , 96, 17-29	1.6	0
122	Effect of Temperature on the Oxidation Mechanism of Ni-30Cr Alloy. <i>Oxidation of Metals</i> , 2021 , 96, 69-80.6	1.6	0
121	Editorial on this Focus Issue on Key Corrosion Topics. <i>Oxidation of Metals</i> , 2021 , 96, 1-2	1.6	
120	Should Gold Marker or TEM-ASTAR Characterization Be Used to Determine Oxide Growth Direction?. <i>Oxidation of Metals</i> , 2021 , 96, 201-211	1.6	0
119	Focus Issue on Unique Materials, Techniques, and Environments. <i>Oxidation of Metals</i> , 2021 , 96, 183-184	1.6	
118	Corrosion of titanium alloys in pressurised water at 300 °C: Kinetics and modelling. <i>Corrosion Science</i> , 2021 , 190, 109646	6.8	2
117	About the Synergetic Influence of Manganese and Silicon on the Oxidation Rate of Chromia Forming Nickel-Based Model Alloys at 1050 °C. <i>Oxidation of Metals</i> , 2020 , 94, 235-249	1.6	0
116	Growth Kinetics and Characterization of Chromia Scales Formed on Ni ₂₀ Cr Alloy in Impure Argon at 700 °C. <i>Oxidation of Metals</i> , 2020 , 93, 329-353	1.6	8
115	Isothermal oxidation of Inconel 625 superalloy at 800 and 1000 °C: Microstructure and oxide layer characterization. <i>Materials Characterization</i> , 2020 , 161, 110160	3.9	11
114	Microstructural characterization of the protective oxide scale forming on Ni ₂₀ Cr _x Mn (x = 0.5, 1 and 1.5% wt) in a 200 Pa O ₂ environment at 1050 °C. <i>Scripta Materialia</i> , 2020 , 178, 176-180	5.6	5
113	High temperature oxidation resistance improvement in an FeMnSiCrNi alloy by Mn-depletion under vacuum annealing. <i>Materials Letters</i> , 2019 , 241, 164-167	3.3	7
112	Oxide formation on titanium alloys in primary water of nuclear pressurised water reactor. <i>Corrosion Science</i> , 2019 , 150, 32-41	6.8	15
111	Shadow corrosion: Experiments and modeling. <i>Journal of Nuclear Materials</i> , 2019 , 523, 310-319	3.3	4
110	Spallation study of chromia scales thermally grown on pure chromium in synthetic air. <i>Materials Characterization</i> , 2019 , 152, 58-66	3.9	

109	Chromia Scale Thermally Grown on Pure Chromium Under Controlled p(O ₂) Atmosphere: II Spallation Investigation Using Photoelectrochemical Techniques at a Microscale. <i>Oxidation of Metals</i> , 2018 , 90, 267-277	1.6	4
108	Chromia Scale Thermally Grown on Pure Chromium Under Controlled p(O ₂) Atmosphere: I. Spallation Investigation Using Photoelectrochemical Techniques at a Mesoscale. <i>Oxidation of Metals</i> , 2018 , 90, 255-266	1.6	5
107	About the control of semiconducting properties of chromia: investigation using photoelectrochemistry and orientation mapping in a TEM. <i>Materials at High Temperatures</i> , 2018 , 35, 159-167	1.1	1
106	Morpho-chemical investigations and thermodynamic study of Nb-rich passive nodules grown on AISI 441 oxidized in wet atmosphere. <i>Corrosion Science</i> , 2018 , 141, 255-263	6.8	5
105	Effect of oxygen partial pressure on the semiconducting properties of thermally grown chromia on pure chromium. <i>Corrosion Science</i> , 2018 , 141, 46-52	6.8	14
104	Corrosion in Pressurized Water 2018 , 155-163		
103	In Situ Oxide Growth Characterization of Mn-Containing Ni ₂₅ Cr (wt%) Model Alloys at 1050 °C. <i>Oxidation of Metals</i> , 2018 , 89, 781-795	1.6	11
102	Study of Electroless Nickel Coatings on EN-GJS-500-7 Spheroidal Graphite Cast Iron. <i>Coatings</i> , 2018 , 8, 239	2.9	1
101	Advanced Microstructural Investigations of AISI 441 Early Stage Oxidation in Wet Atmosphere. <i>Key Engineering Materials</i> , 2017 , 728, 3-8	0.4	3
100	Special Issue on Advances in Relevant Characterization Techniques. <i>Oxidation of Metals</i> , 2017 , 88, 421-4226		
99	Relations Between Oxidation Induced Microstructure and Mechanical Durability of Oxide Scales. <i>Oxidation of Metals</i> , 2017 , 88, 29-40	1.6	1
98	The Role of Oxygen Partial Pressure on the Nature of the Oxide Scale on a NiCr Model Alloy. <i>Oxidation of Metals</i> , 2017 , 88, 481-493	1.6	17
97	Towards the growth of stoichiometric chromia on pure chromium by the control of temperature and oxygen partial pressure. <i>Corrosion Science</i> , 2017 , 126, 238-246	6.8	39
96	The Yttrium Effect on Nanoscale Structure, Mechanical Properties, and High-Temperature Oxidation Resistance of (Ti _{0.6} Al _{0.4}) _{1-x} Y _x N Multilayer Coatings. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017 , 48, 4097-4110	2.3	2
95	Special Issue on Corrosion/Mechanical Loading Interactions. <i>Oxidation of Metals</i> , 2017 , 88, 1-2	1.6	4
94	Duplex n- and p-Type Chromia Grown on Pure Chromium: A Photoelectrochemical and Microscopic Study. <i>Oxidation of Metals</i> , 2016 , 86, 497-509	1.6	25
93	Effect of implantation defects on the corrosion of 316L stainless steels in primary medium of pressurized water reactors. <i>Corrosion Science</i> , 2016 , 107, 1-8	6.8	14
92	Comparison of damaging behavior of oxide scales grown on austenitic stainless steels using tensile test and cyclic thermogravimetry. <i>Corrosion Science</i> , 2016 , 103, 145-156	6.8	19

91	Reduction of chromium volatilisation from stainless steel interconnector of solid oxide electrochemical devices by controlled preoxidation. <i>Corrosion Science</i> , 2016 , 106, 172-178	6.8	23
90	2016 ,		2
89	Advanced STEM/EDX investigation on an oxide scale thermally grown on a high-chromium ironNickel alloy under very low oxygen partial pressure. <i>Corrosion Science</i> , 2015 , 101, 193-200	6.8	18
88	Possible connection between nodule development and presence of niobium and/or titanium during short time thermal oxidation of AISI 441 stainless steel in wet atmosphere. <i>Materials at High Temperatures</i> , 2015 , 32, 22-27	1.1	13
87	Breakaway oxidation of austenitic stainless steels induced by alloyed sulphur. <i>Corrosion Science</i> , 2015 , 93, 100-108	6.8	22
86	Oxidation Kinetics of AISI 441 Ferritic Stainless Steel at High Temperatures in CO ₂ Atmosphere. <i>Oxidation of Metals</i> , 2014 , 81, 315-329	1.6	21
85	Study of EM void nucleation and mechanic relaxation effects. <i>Microelectronics Reliability</i> , 2014 , 54, 1692-1696	1.6	1
84	Properties of TiSiN coatings deposited by hybrid HiPIMS and pulsed-DC magnetron co-sputtering. <i>Vacuum</i> , 2014 , 109, 43-51	3.7	39
83	Oxidation of simulated recycled steels with 0.23 and 1.03 wt.% Si in Ar ₂₀ %H ₂ O at 900 °C. <i>Corrosion Science</i> , 2014 , 87, 101-110	6.8	27
82	Semiconducting properties of thermal scales grown on a chromia-forming alloy under controlled oxygen partial pressures. <i>Corrosion Science</i> , 2014 , 87, 218-223	6.8	15
81	Time and temperature dependence of the adhesion of oxide scales formed on phosphorus-containing steels during short term oxidation. <i>Materials Chemistry and Physics</i> , 2014 , 148, 1157-1162	4.4	5
80	The Effect of Water Vapor on Thermal Oxide Grown on Inconel 690. <i>Applied Mechanics and Materials</i> , 2014 , 670-671, 74-81	0.3	4
79	Hydrogen absorption associated with the corrosion mechanism of 316L stainless steels in primary medium of Pressurized Water Reactor (PWR). <i>Corrosion Science</i> , 2014 , 85, 251-257	6.8	23
78	Influence of the Oxygen Partial Pressure on the High Temperature Corrosion of 38Ni ₃ 4Fe ₂ 5Cr Alloy in Presence of NaCl Deposit. <i>Oxidation of Metals</i> , 2013 , 80, 577-588	1.6	3
77	Water Vapor Effects in High Temperature Oxidation. <i>Oxidation of Metals</i> , 2013 , 79, 443-444	1.6	1
76	Advanced Characterization Techniques in High-Temperature Oxidation and Corrosion Studies. <i>Oxidation of Metals</i> , 2013 , 79, 225-226	1.6	
75	Detection of Breakaway Oxidation with Acoustic Emission During Zirconium Oxide Scale Growth. <i>Oxidation of Metals</i> , 2013 , 79, 279-288	1.6	7
74	Adhesion of Thermal Oxide Scales on Hot-Rolled Conventional and Recycled Steels. <i>Oxidation of Metals</i> , 2013 , 79, 325-335	1.6	19

73	Multiscale Photoelectrochemical Studies on Oxidized Duplex Stainless Steels. <i>Oxidation of Metals</i> , 2013 , 79, 337-347	1.6	4
72	Photoelectrochemistry of Oxidation Layers: A Novel Approach to Analyze Photocurrent Energy Spectra. <i>Oxidation of Metals</i> , 2013 , 79, 349-359	1.6	10
71	Investigation on the multi-voids formation during electromigration degradation in dual damascene Cu lines. <i>Microelectronic Engineering</i> , 2013 , 112, 130-132	2.5	1
70	Oxide Growth Characterization During Short-Time Oxidation of a Commercially Available Chromia-Forming Alloy (HR-120) in Air at 1,050 °C. <i>Oxidation of Metals</i> , 2013 , 80, 25-35	1.6	30
69	A Possible Mechanism for Protrusions Formation at the Metal/Oxide Interface During Short Time Oxidation of Ferritic Stainless Steel. <i>Oxidation of Metals</i> , 2013 , 79, 65-72	1.6	4
68	Semiconducting behavior and bandgap energies of oxide films grown on alloy 600 under PWR simulated primary water conditions with different dissolved hydrogen contents. <i>Journal of Nuclear Materials</i> , 2013 , 443, 222-229	3.3	12
67	Microstructural void environment characterization by electron imaging in 45nm technology node to link electromigration and copper microstructure. <i>Microelectronic Engineering</i> , 2013 , 106, 168-171	2.5	8
66	Effectiveness of wafer level test for electromigration wear out reporting in advanced CMOS interconnects reliability assessment. <i>Microelectronic Engineering</i> , 2013 , 106, 195-199	2.5	1
65	Corrosion kinetics under high pressure of steam of pure zirconium and zirconium alloys followed by in situ thermogravimetry. <i>Journal of Nuclear Materials</i> , 2012 , 426, 148-159	3.3	29
64	Reversible catastrophic oxidation of a 38FeB4Ni25Cr alloy induced by sodium sulphate at low oxygen potential atmospheres. <i>Corrosion Science</i> , 2012 , 55, 133-139	6.8	5
63	High temperature behavior of the metal/oxide interface of ferritic stainless steels. <i>Corrosion Science</i> , 2012 , 59, 148-156	6.8	25
62	Optimisation of Metallic Interconnects for Hydrogen Production by High Temperature Water Vapour Electrolysis. <i>Defect and Diffusion Forum</i> , 2012 , 323-325, 239-244	0.7	10
61	Influence of Polishing-Induced Surface Hardening on the Adhesion of Oxide Scales Grown on a Ferritic Stainless Steel. <i>Oxidation of Metals</i> , 2011 , 75, 167-181	1.6	8
60	Influence of Hydrogen and Water Vapour on the Kinetics of Chromium Oxide Growth at High Temperature. <i>Oxidation of Metals</i> , 2011 , 76, 193-214	1.6	21
59	Behaviour of ferritic stainless steels subjected to dry biogas atmospheres at high temperatures. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2011 , 62, 616-622	1.6	7
58	2011 ,		1
57	Grain boundary as relevant microstructure feature for electromigration in advanced technology studied by Electron BackScattered Diffraction 2011 ,		1
56	Microstructure and texture analysis of narrow copper line versus widths and annealing for reliability improvement. <i>Microelectronic Engineering</i> , 2011 , 88, 661-665	2.5	6

55	Sol-gel titania films on YHfAl foils and their influence on inhibition of transition aluminas during oxidation at high temperatures. <i>Applied Surface Science</i> , 2011 , 257, 3929-3935	6.7	2
54	Water Vapour Effects on the Oxidation of Chromia-Forming Alloys. <i>Materials Science Forum</i> , 2011 , 696, 200-205	0.4	16
53	Effect of Humidity on the Corrosion Kinetics of Ferritic Stainless Steels Subjected to Synthetic Biogas. <i>Materials Science Forum</i> , 2011 , 696, 417-422	0.4	1
52	Photoelectrochemical investigations on individual ferritic and austenitic grains of a duplex stainless steel oxidized in water vapour. <i>Materials at High Temperatures</i> , 2011 , 28, 349-354	1.1	9
51	Evolution of the metal-oxide interface during the initial stage of the high temperature oxidation of ferritic stainless steels. <i>Materials at High Temperatures</i> , 2011 , 28, 274-278	1.1	3
50	Effect of Dissolved Hydrogen, Surface Conditions and Composition on the Electronic Properties of the Oxide Films Formed on Nickel-Base Alloys in PWR Primary Water 2011 , 953-966		
49	Recherche du mécanisme d'oxydation d'un alliage Ni-Cr par la vapeur d'eau. <i>Materiaux Et Techniques</i> , 2011 , 99, 111-115	0.6	
48	Effect of reservoir on electromigration of short interconnects 2010 ,		4
47	Detection of breakaway oxidation with Acoustic Emission during titanium oxide scale growth. <i>Corrosion Science</i> , 2010 , 52, 2365-2371	6.8	8
46	Microstructure and texture analysis of advanced copper using electron backscattered diffraction and scanning transmission electron microscopy 2010 ,		1
45	Electron Backscattered Diffraction Analysis Of Narrow Copper Interconnects In Cross-View To Investigate Scale Effect On Microstructure. 2010 ,		2
44	Photoelectrochemical study of nickel base alloys oxide films formed at high temperature and high pressure water. <i>Electrochimica Acta</i> , 2010 , 55, 5384-5392	6.7	56
43	CU interconnect immortality criterion based on electromigration void growth saturation 2009 ,		2
42	Identification by photoelectrochemistry of oxide phases grown during the initial stages of thermal oxidation of AISI 441 ferritic stainless steel in air or in water vapour. <i>Corrosion Science</i> , 2009 , 51, 562-568	6.8	45
41	Haematite and chromia dissolution in the zirconia matrix during thermal oxidation of Laves-phases $\text{Zr}(\text{Fe,Cr})_2$ on Zircaloy-4. <i>Materials at High Temperatures</i> , 2009 , 26, 9-14	1.1	4
40	Photoelectrochemical imaging of metal-scale decohesion on titanium thermally oxidised in oxygen. <i>Corrosion Science</i> , 2008 , 50, 1122-1131	6.8	15
39	Use of bidirectional current stress for in depth analysis of electromigration mechanism 2008 ,		3
38	Comments on the Quantification of Mechanical Adhesion Energy of Thermal Oxide Scale on Metallic Substrate Using Tensile Test. <i>Materials Science Forum</i> , 2008 , 595-598, 907-914	0.4	3

37	Short Term Oxidation of Stainless Steels during Final Annealing. <i>Materials Science Forum</i> , 2008 , 595-598, 601-610	0.4	8
36	Imaging by Photoelectrochemical Techniques of Laves-Phases $\text{Zr}(\text{Fe,Cr})_2$ Thermally Oxidized on Zircaloy-4. <i>Materials Science Forum</i> , 2008 , 595-598, 571-579	0.4	5
35	Photoelectrochemical Characterisation of Chromia Scales Thermally Grown on Various Metal Substrates. <i>Materials Science Forum</i> , 2008 , 595-598, 1181-1188	0.4	16
34	Extensive analysis of resistance evolution due to electromigration induced degradation. <i>Journal of Applied Physics</i> , 2008 , 104, 123521	2.5	42
33	Chemical composition and electronic structure of the passive layer formed on stainless steels in a glucose-oxidase solution. <i>Electrochimica Acta</i> , 2008 , 54, 123-132	6.7	28
32	On the Competitive Growth of Alpha and Transient Aluminas During the First Stages of Thermal Oxidation of FeCrAl Alloys at Intermediate Temperatures. <i>Oxidation of Metals</i> , 2008 , 70, 331-337	1.6	22
31	Influence of a TiO_2 surface treatment on the growth and adhesion of alumina scales on FeCrAl alloys. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2008 , 59, 423-428	1.6	4
30	Evidence of silica layer at the interface between ferrite and the chromium oxide scale in oxidized Fe-Cr-Si alloys 2008 , 415-416		
29	Photoelectrochemical Study of Oxides Thermally Grown on Titanium in Oxygen or Water Vapor Atmospheres. <i>Journal of the Electrochemical Society</i> , 2007 , 154, C587	3.9	13
28	Comparative study and imaging by PhotoElectroChemical techniques of oxide films thermally grown on zirconium and Zircaloy-4. <i>Journal of Nuclear Materials</i> , 2007 , 360, 151-158	3.3	18
27	Inverse growth transport in thermal chromia scales on Fe_{15}Cr steels in oxygen and in water vapour and its effect on scale adhesion. <i>Scripta Materialia</i> , 2007 , 57, 671-674	5.6	43
26	Adhesion of oxide scales grown on ferritic stainless steels in solid oxide fuel cells temperature and atmosphere conditions. <i>Journal of Power Sources</i> , 2007 , 171, 688-695	8.9	63
25	Determination of mechanical adhesion energy of thermal oxide scales on AISI 430Ti alloy using tensile test. <i>Materials Science and Technology</i> , 2007 , 23, 497-501	1.5	37
24	Photoelectrochemical imaging of thermally grown oxide scales 2007 , 172-177		
23	Residual resistivity model and its application. <i>Integrated Reliability Workshop Final Report, 2009 IRW 109 IEEE International</i> , 2006 ,		2
22	Quantitative Adhesion Energy Values of Chromia-Rich Thermal Oxides on Stainless Steels Determined by Blister and Tensile Tests. <i>Materials Science Forum</i> , 2006 , 522-523, 441-450	0.4	6
21	Thermal oxidation kinetics and oxide scale adhesion of Fe_{15}Cr alloys as a function of their silicon content. <i>Acta Materialia</i> , 2006 , 54, 3917-3922	8.4	81
20	Photoelectrochemical and Raman imaging studies of chemical and mechanical properties of thermally grown titanium oxide scales. <i>Materials at High Temperatures</i> , 2005 , 22, 315-320	1.1	

19	Temperature dependence of metastable alumina formation during thermal oxidation of FeCrAl foils. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2005 , 56, 389-392	1.6	40
18	Metastable alumina formation during oxidation of FeCrAl and its suppression by surface treatments. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2005 , 56, 843-847	1.6	19
17	Mechanisms of chromia scale failure during the course of 15%Cr ferritic stainless steel oxidation in water vapour. <i>Materials at High Temperatures</i> , 2005 , 22, 105-112	1.1	18
16	Photoelectrochemical and Raman imaging studies of chemical and mechanical properties of thermally grown titanium oxide scales. <i>Materials at High Temperatures</i> , 2005 , 22, 315-320	1.1	3
15	Mechanisms of chromia scale failure during the course of 15%Cr ferritic stainless steel oxidation in water vapour. <i>Materials at High Temperatures</i> , 2005 , 22, 105-112	1.1	43
14	Oxygen and Water Vapour Oxidation of 15Cr Ferritic Stainless Steels with Different Silicon Contents. <i>Materials Science Forum</i> , 2004 , 461-464, 839-848	0.4	28
13	Study of the Thermal Oxidation of Fe-15 Cr by Combined Raman and Photoelectrochemical Imaging. <i>Materials Science Forum</i> , 2004 , 461-464, 681-688	0.4	13
12	Measuring Adhesion of Cr ₂ O ₃ and Al ₂ O ₃ Scales on Fe-Based Alloys. <i>Materials Science Forum</i> , 2004 , 461-464, 631-638	0.4	20
11	Oxidation Kinetics and Scale Spallation of Iron-Chromium Alloys with Different Titanium Contents. <i>Materials Science Forum</i> , 2004 , 461-464, 705-712	0.4	28
10	Parameters affecting transient oxide formation on FeCrAl based foil and fibre materials. <i>Materials at High Temperatures</i> , 2003 , 20, 287-293	1.1	35
9	Thermal Oxidation of Metallic Niobium by Water Vapor. <i>Oxidation of Metals</i> , 2001 , 55, 153-163	1.6	7
8	The Kinetic Behaviour of Metals in Water Vapour at High Temperatures: Can General Rules Be Proposed?. <i>Materials Science Forum</i> , 2001 , 369-372, 231-238	0.4	77
7	Characterization of Chromia Scales Grown on Pure Chromium in Different Oxidizing Atmospheres. <i>Materials at High Temperatures</i> , 2000 , 17, 231-234	1.1	29
6	The effect of water vapor on the oxidation behavior of 9%Cr steels in simulated combustion gases. <i>Fresenius Journal of Analytical Chemistry</i> , 1998 , 361, 540-544		44
5	Interfacial Reactions and Diffusion during the Thermal Oxidation of Titanium in Water Vapour. <i>Materials Science Forum</i> , 1997 , 251-254, 113-118	0.4	16
4	Thermal oxidation of titanium by water vapour. <i>Solid State Ionics</i> , 1997 , 104, 89-96	3.3	54
3	Characterization of Chromia Scales Grown on Pure Chromium in Different Oxidizing Atmospheres		51
2	Parameters affecting transient oxide formation on FeCrAl based foil and fibre materials		8

- 1 Effect of Dissolved Hydrogen, Surface Conditions and Composition on the Electronic Properties of the Oxide Films Formed on Nickel-Base Alloys in PWR Primary Water953-963

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