

# David John Young

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/2369451/publications.pdf>

Version: 2024-02-01

264  
papers

7,481  
citations

57758

44  
h-index

91884

69  
g-index

264  
all docs

264  
docs citations

264  
times ranked

2835  
citing authors

#	ARTICLE	IF	CITATIONS
1	On the determination of copper surface area by reaction with nitrous oxide. Applied Catalysis, 1983, 7, 75-83.	0.8	390
2	Enhanced oxidation of the 9%Cr steel P91 in water vapour containing environments. Corrosion Science, 2006, 48, 3428-3454.	6.6	270
3	Chromium Volatilization Rates from Cr <sub>2</sub> O <sub>3</sub> Scales into Flowing Gases Containing Water Vapor. Oxidation of Metals, 2006, 66, 137-153.	2.1	226
4	Growth and adherence of chromia based surface scales on Ni-base alloys in high- and low-pO <sub>2</sub> gases. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 477, 259-270.	5.6	170
5	Carburisation of ferritic Fe-Cr alloys by low carbon activity gases. Corrosion Science, 2011, 53, 2767-2777.	6.6	139
6	The oxidation of Iron-Chromium-Manganese alloys at 900½C. Oxidation of Metals, 1991, 36, 157-174.	2.1	125
7	Role of Water Vapor in Chromia-Scale Growth at Low Oxygen Partial Pressure. Oxidation of Metals, 2003, 59, 285-301.	2.1	122
8	Oxidation properties of transition metals. Progress in Solid State Chemistry, 1975, 10, 17-54.	7.2	117
9	Recent advances in understanding metal dusting: A review. Materials and Corrosion - Werkstoffe Und Korrosion, 2011, 62, 7-28.	1.5	116
10	Penetration of protective chromia scales by carbon. Scripta Materialia, 2014, 77, 29-32.	5.2	113
11	±-NiPt(Al) and phase equilibria in the Ni-Al-Pt system at 1150 °C. Acta Materialia, 2005, 53, 3319-3328.	7.9	99
12	High-temperature corrosion of Cr <sub>2</sub> O <sub>3</sub> -forming alloys in CO-CO <sub>2</sub> -N <sub>2</sub> atmospheres. Oxidation of Metals, 1994, 42, 163-190.	2.1	92
13	Formation of Z-Ti <sub>50</sub> Al <sub>30</sub> O <sub>20</sub> in the sub-oxide zones of ±-TiAl-based alloys during oxidation at 1000°C. Acta Materialia, 1999, 47, 2937-2949.	7.9	92
14	Effects of water vapour on isothermal oxidation of chromia-forming alloys in Ar/O <sub>2</sub> and Ar/H <sub>2</sub> atmospheres. Corrosion Science, 2009, 51, 3039-3049.	6.6	90
15	Temperature dependence of oxide scale formation on high-Cr ferritic steels in Ar-H <sub>2</sub> -H <sub>2</sub> O. Corrosion Science, 2011, 53, 2131-2141.	6.6	90
16	Methanol synthesis over Raney copper-zinc catalysts I. Activities and surface properties of fully extracted catalysts. Journal of Catalysis, 1983, 80, 1-13.	6.2	87
17	Effects of Silicon on High Temperature Corrosion of Fe-Cr and Fe-Cr-Ni Alloys in Carbon Dioxide. Oxidation of Metals, 2014, 81, 549-574.	2.1	85
18	Internal oxidation and carburisation of heat-resistant alloys. Corrosion Science, 2003, 45, 967-981.	6.6	79

#	ARTICLE	IF	CITATIONS
19	Factors Affecting Chromium Carbide Precipitate Dissolution During Alloy Oxidation. Oxidation of Metals, 1998, 50, 139-165.	2.1	78
20	Microstructure of HK40 alloy after high temperature service in oxidizing/carburizing environment. Materials Characterization, 2002, 49, 11-21.	4.4	76
21	High-temperature corrosion in mixed gas environments. Oxidation of Metals, 1995, 44, 239-264.	2.1	73
22	Water Vapour Effects on Fe-Cr Alloy Oxidation. Oxidation of Metals, 2010, 73, 337-352.	2.1	72
23	Nonstoichiometry and Thermodynamics of Chromium Sulfides. Journal of the Electrochemical Society, 1973, 120, 1221.	2.9	67
24	Alloy phase transformations driven by high temperature corrosion processes. Corrosion Science, 2002, 44, 345-357.	6.6	65
25	Metal Dusting of Fe-Cr and Fe-Ni-Cr Alloys Under Cyclic Conditions. Oxidation of Metals, 2002, 58, 1-21.	2.1	62
26	Alloys SS316 and Hastelloy-C276 in Supercritical CO <sub>2</sub> at High Temperature. Oxidation of Metals, 2015, 84, 585-606.	2.1	62
27	Non-steady state carburisation of martensitic 9-12%Cr steels in CO <sub>2</sub> rich gases at 550°C. Corrosion Science, 2014, 88, 161-169.	6.6	61
28	Effects of cerium and manganese on corrosion of Fe-Cr and Fe-Cr-Ni alloys in Ar-20CO <sub>2</sub> gas at 818°C. Corrosion Science, 2013, 76, 231-242.	6.6	60
29	Effect of Mn on oxide formation by Fe-Cr and Fe-Cr-Ni alloys in dry and wet CO <sub>2</sub> gases at 650 °C. Corrosion Science, 2016, 112, 110-127.	6.6	58
30	Kinetics of breakaway oxidation of Fe-Cr and Fe-Cr-Ni alloys in dry and wet carbon dioxide. Corrosion Science, 2013, 77, 246-256.	6.6	57
31	Carburization kinetics of heat-resistant steels. Oxidation of Metals, 1982, 18, 229-243.	2.1	56
32	Oxidation kinetics of Y-doped FeCrAl alloys in low and high pO <sub>2</sub> gases. Materials and Corrosion - Werkstoffe Und Korrosion, 2010, 61, 838-844.	1.5	55
33	The Nature of High Temperature Oxidation. , 2016, , 1-30.		55
34	Methanol synthesis over Raney copper-zinc catalysts II. Activities and surface properties of a partially leached alloy. Journal of Catalysis, 1983, 80, 14-24.	6.2	53
35	Selective leaching of NiAl <sub>3</sub> and Ni <sub>2</sub> Al <sub>3</sub> intermetallics to form Raney nickels. Journal of Materials Science, 1988, 23, 3921-3926.	3.7	53
36	On the breakaway oxidation of Fe <sub>9</sub> Cr <sub>1</sub> Mo steel in high pressure CO <sub>2</sub> . Acta Materialia, 2017, 130, 361-374.	7.9	53

#	ARTICLE	IF	CITATIONS
37	Oxidation Behavior of Chromium Between 300Å° and 600Å°C. Journal of the Electrochemical Society, 1977, 124, 769-774.	2.9	52
38	Simultaneous Internal Oxidation and Nitridation of Niâ€“Crâ€“Al Alloys. Oxidation of Metals, 2001, 55, 223-242.	2.1	52
39	Development of Re-based diffusion barrier coatings on nickel based superalloys. Materials and Corrosion - Werkstoffe Und Korrosion, 2005, 56, 923-929.	1.5	50
40	Kinetics and mechanisms of nickel metal dusting I. Kinetics and morphology. Corrosion Science, 2007, 49, 1496-1512.	6.6	50
41	Water vapour effects on corrosion of Feâ€“Cr and Feâ€“Crâ€“Ni alloys containing cerium and manganese in CO2 gas at 818 Å°C. Corrosion Science, 2014, 89, 220-235.	6.6	49
42	Effects of Silicon and Water Vapour on Corrosion of Feâ€“20Cr and Feâ€“20Crâ€“20Ni Alloys in CO2 at 650Å°C. Oxidation of Metals, 2017, 87, 541-573.	2.1	49
43	The hot-corrosion behavior of novel CO-deposited chromium-modified aluminide coatings. Oxidation of Metals, 1992, 38, 407-424.	2.1	48
44	Laser Raman spectroscopy: a technique for rapid characterisation of oxide scale layers. Materials Science and Technology, 1998, 14, 373-376.	1.6	48
45	Temperature and water vapour effects on the cyclic oxidation behaviour of Feâ€“Cr alloys. Corrosion Science, 2010, 52, 2827-2836.	6.6	48
46	Effects of Water Vapour on the Oxidation of Chromia Formers. Materials Science Forum, 0, 595-598, 1189-1197.	0.3	47
47	Effects of cerium and manganese on corrosion of Feâ€“Cr and Feâ€“Crâ€“Ni alloys in Arâ€“20CO2 and Arâ€“20CO2â€“20H2O gases at 650 Å°C. Corrosion Science, 2015, 100, 448-465.	6.6	47
48	The cyclic oxidation behaviour of Î±-Cr + Î²-NiAl alloys with and without trace Zr addition. Corrosion Science, 1997, 39, 639-654.	6.6	45
49	Protective nitride formation on stainless steel alloys for proton exchange membrane fuel cell bipolar plates. Journal of Power Sources, 2007, 174, 228-236.	7.8	45
50	Mechanisms of Oxide Scale Formation on Ferritic Interconnect Steel in Simulated Low and High pO2 Service Environments of Solid Oxide Fuel Cells. Oxidation of Metals, 2014, 82, 123-143.	2.1	43
51	Microprocesses in nickel accompanying metal dusting. Acta Materialia, 2008, 56, 68-77.	7.9	42
52	Atom probe study of impurity segregation at grain boundaries in chromia scales grown in CO2 gas. Corrosion Science, 2018, 132, 125-135.	6.6	42
53	Effect of copper on metal dusting of austenitic stainless steels. Corrosion Science, 2007, 49, 1450-1467.	6.6	41
54	Methanol synthesis over raney copper-zinc catalysts. III. optimization of alloy composition and catalyst preparation. Applied Catalysis, 1983, 7, 369-382.	0.8	36

#	ARTICLE	IF	CITATIONS
55	Simultaneous oxidation and carburisation of chromia forming alloys. International Journal of Hydrogen Energy, 2007, 32, 3763-3769.	7.1	36
56	Corrosion of Fe-Cr-(Mn, Si) alloys in CO <sub>2</sub> -H <sub>2</sub> O-SO <sub>2</sub> gases. Corrosion Science, 2015, 98, 516-529.	6.6	36
57	Codeposited Chromium-Aluminide Coatings: II. Kinetics and Morphology of Coating Growth. Journal of the Electrochemical Society, 1994, 141, 2690-2698.	2.9	35
58	Comparison of internal nitridation reactions in ammonia and in nitrogen. Oxidation of Metals, 1995, 44, 453-474.	2.1	35
59	Temperature Effect on Oxidation Behavior of Ni-Cr Alloys in CO <sub>2</sub> Gas Atmosphere. Journal of the Electrochemical Society, 2017, 164, C285-C293.	2.9	35
60	Codeposited Chromium-Aluminide Coatings: I. Definition of the Codeposition Regimes. Journal of the Electrochemical Society, 1994, 141, 1464-1471.	2.9	34
61	Alloying with copper to reduce metal dusting of nickel. Materials and Corrosion - Werkstoffe Und Korrosion, 2005, 56, 756-764.	1.5	34
62	Stability of Cementite Formed from Hematite and Titanomagnetite Ore. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2007, 38, 175-184.	2.1	33
63	Oxidation, carburisation and metal dusting of 304 stainless steel in CO/CO <sub>2</sub> and CO/H <sub>2</sub> /H <sub>2</sub> O gas mixtures. Corrosion Science, 2008, 50, 3107-3115.	6.6	33
64	High temperature corrosion of Fe-Cr-(Mn/Si) alloys in CO <sub>2</sub> -H <sub>2</sub> O-SO <sub>2</sub> gases. Corrosion Science, 2016, 112, 214-225.	6.6	33
65	A comparison of Raney copper-zinc and coprecipitated copper-zinc-aluminium oxide methanol syntheses catalysts. Applied Catalysis, 1986, 28, 241-253.	0.8	32
66	Precipitate morphologies and growth kinetics in the internal carburisation and nitridation of Fe-Ni-Cr alloys. Corrosion Science, 2000, 42, 861-883.	6.6	32
67	Corrosion behaviour of Ni-Cr alloys in wet CO <sub>2</sub> atmosphere at 700 and 800°C. Corrosion Science, 2019, 146, 28-43.	6.6	32
68	Raney nickel-copper catalysts I. Structure and leaching properties. Journal of Catalysis, 1980, 64, 116-123.	6.2	31
69	Effects of aluminum on the oxidation of 25Cr-35Ni cast steels. Oxidation of Metals, 1984, 22, 227-245.	2.1	31
70	High temperature corrosion of cast heat resisting steels in CO+CO <sub>2</sub> gas mixtures. Corrosion Science, 2008, 50, 2398-2406.	6.6	31
71	Oxidation of Fe-Si, Fe-Al and Fe-Si-Al alloys in CO <sub>2</sub> -H <sub>2</sub> O gas at 800°C. Corrosion Science, 2012, 54, 127-138.	6.6	31
72	Caustic Leaching of Al-Cu-Zn Alloys to Produce Raney Catalysts: II. Leaching Kinetics. Journal of the Electrochemical Society, 1981, 128, 1845-1850.	2.9	30

#	ARTICLE	IF	CITATIONS
73	Cyclic oxidation behaviour of two-phase Ni—Cr—Al alloys at 1100°C. Corrosion Science, 1993, 35, 923-929.	6.6	30
74	Caburisation of heat-resistant steels. Materials and Corrosion - Werkstoffe Und Korrosion, 1998, 49, 231-236.	1.5	30
75	Water Vapor Effects on Corrosion of Fe—Cr and Fe—Cr—Ni Alloys Containing Silicon in CO <sub>2</sub> Gas at 818°C. Oxidation of Metals, 2015, 83, 575-594.	2.1	30
76	Resistance of High-Nickel, Heat-Resisting Alloys to Air and to Supercritical CO <sub>2</sub> at High Temperatures. Oxidation of Metals, 2018, 90, 1-25.	2.1	30
77	The Criterion for Stability of a Planar Alloy—Oxide Interface upon Oxidation of Binary Alloys. Journal of the Electrochemical Society, 1976, 123, 1073-1079.	2.9	29
78	Calculation of precipitate dissolution zone kinetics in oxidising binary two-phase alloys. Acta Materialia, 1996, 44, 4033-4038.	7.9	29
79	A Simple Expression for Predicting the Oxidation Limited Life of Thin Components Manufactured from FCC High Temperature Alloys. Oxidation of Metals, 2012, 77, 253-264.	2.1	29
80	Interpreting atom probe data from chromium oxide scales. Ultramicroscopy, 2015, 159, 354-359.	1.9	29
81	Gas—Phase Composition Effects on the Iron Sulfide Scaling Reaction. Journal of the Electrochemical Society, 1986, 133, 1734-1741.	2.9	28
82	Preparation and properties of raney copper-zinc catalyst pellets for methanol synthesis. Applied Catalysis, 1987, 29, 31-41.	0.8	28
83	Subsurface microstructural changes in a cast heat resisting alloy caused by high temperature corrosion. Corrosion Science, 2010, 52, 255-262.	6.6	28
84	Pore Development during Selective Leaching. Journal of the Electrochemical Society, 1984, 131, 2476-2481.	2.9	27
85	Boron Depletion in a Nickel Base Superalloy Induced by High Temperature Oxidation. Oxidation of Metals, 2015, 83, 393-413.	2.1	27
86	Effects of Si, Al and Ti on corrosion of Ni-20Cr and Ni-30Cr alloys in Ar-20CO <sub>2</sub> at 700 °C. Corrosion Science, 2018, 130, 161-176.	6.6	27
87	High temperature corrosion of pure chromium in CO-CO <sub>2</sub> -SO <sub>2</sub> -N <sub>2</sub> atmospheres. Corrosion Science, 1994, 36, 1999-2015.	6.6	26
88	Slow Transition from Protective to Breakaway Oxidation of Haynes 214 Foil at High Temperature. Oxidation of Metals, 2013, 79, 405-427.	2.1	26
89	Microstructures of chromia scales grown in CO <sub>2</sub> . Materials at High Temperatures, 2015, 32, 16-21.	1.0	26
90	Metal oxidation—l. Ionic transport equation. Journal of Physics and Chemistry of Solids, 1973, 34, 1227-1234.	4.0	25

#	ARTICLE	IF	CITATIONS
91	Caustic Leaching of Al-Cu-Zn Alloys to Produce Raney Catalysts: I. Morphological Development. Journal of the Electrochemical Society, 1981, 128, 1840-1844.	2.9	25
92	Alloy Corrosion by Hot CO <sub>2</sub> Gases. Jom, 2018, 70, 1493-1501.	1.9	25
93	Corrosion behaviour of Ni-Cr alloys in mixed oxidising gases at 650°C. Corrosion Science, 2020, 174, 108801.	6.6	25
94	Metal oxidation-II. Kinetics in the thin and very thin film regions under conditions of electron equilibrium. Journal of Physics and Chemistry of Solids, 1973, 34, 1235-1250.	4.0	24
95	High Temperature Reaction of Chromium with Multi-Oxidant Atmospheres. Materials Science Forum, 1997, 251-254, 567-574.	0.3	24
96	Scaling of Carbon Steel in Simulated Reheat Furnace Atmospheres. Oxidation of Metals, 2005, 63, 15-31.	2.1	24
97	Coking and Dusting of Fe-Ni Alloys in CO-H <sub>2</sub> -H <sub>2</sub> O Gas Mixtures. Oxidation of Metals, 2008, 70, 189-211.	2.1	24
98	Oxygen Permeability Measurements in Ni Using H <sub>2</sub> /H <sub>2</sub> O, CO/CO <sub>2</sub> and Ni/NiO Rhines Pack Atmospheres. Oxidation of Metals, 2015, 83, 223-235.	2.1	24
99	The coking kinetics of heat resistant austenitic steels in hydrogen-propylene atmospheres. Journal of Materials Science, 1986, 21, 3125-3134.	3.7	23
100	Improvements to Raney copper methanol synthesis catalysts through zinc impregnation. Applied Catalysis, 1991, 77, 75-88.	0.8	23
101	Water vapour effects on corrosion of Ni-Cr alloys in CO <sub>2</sub> gas at 650°C. Corrosion Science, 2018, 136, 311-325.	6.6	23
102	Effect of Fe on corrosion of Ni-20Cr and Ni-30Cr alloys in wet CO <sub>2</sub> gas at 650 and 700°C. Corrosion Science, 2019, 154, 129-143.	6.6	23
103	Logarithmic kinetics in thin film tarnishing. Oxidation of Metals, 1972, 5, 241-249.	2.1	22
104	Silicon contamination effects in the oxidation of carbide-containing cobalt-chromium alloys. Materials and Corrosion - Werkstoffe Und Korrosion, 1998, 49, 855-863.	1.5	22
105	Rapid Growth of SiO <sub>2</sub> Nanofibers on Silicon-Bearing Alloys. Oxidation of Metals, 2001, 56, 375-394.	2.1	22
106	Oxidation - Nitridation of Ni-Cr-Al alloys. Materials Research, 2004, 7, 11-16.	1.3	22
107	Carburization resistance of nickel-base, heat-resisting alloys. Oxidation of Metals, 2007, 67, 267-277.	2.1	22
108	Effects of water vapour on the high temperature nitridation of chromium. Materials and Corrosion - Werkstoffe Und Korrosion, 2014, 65, 260-266.	1.5	21

#	ARTICLE	IF	CITATIONS
109	Effect of Sulphur on the Oxidation Behaviour of Possible Construction Materials for Heat Exchangers in Oxyfuel Plants in the Temperature Range 550–700°C. <i>Oxidation of Metals</i> , 2018, 89, 651-681.	2.1	21
110	Sulfidation Kinetics of Iron and Ferritic Iron–Cobalt Alloys. <i>Journal of the Electrochemical Society</i> , 1976, 123, 229-234.	2.9	20
111	Deactivation Due to Metal-Catalysed Phase Transformations in $\gamma$ -Al <sub>2</sub> O <sub>3</sub> Supports. <i>Studies in Surface Science and Catalysis</i> , 1980, 6, 331-340.	1.5	20
112	Sulfidation behavior of an aluminum-manganese steel. <i>Oxidation of Metals</i> , 1986, 25, 107-119.	2.1	20
113	Structural changes during the leaching of copper-based raney catalysts. <i>Applied Catalysis</i> , 1987, 33, 119-127.	0.8	20
114	The effect of molybdenum and aluminium additions on the carburization behaviour of high temperature steel. <i>Journal of Materials Science Letters</i> , 1993, 12, 1076-1079.	0.5	20
115	Mechanism of breakaway oxidation of Fe–Cr and Fe–Cr–Ni alloys in dry and wet carbon dioxide. <i>Corrosion Science</i> , 2012, 64, 222-222.	6.6	20
116	Oxidation Behavior of Ni–Cr Alloys in CO <sub>2</sub> at 700°C. <i>Oxidation of Metals</i> , 2017, 87, 605-616.	2.1	20
117	Growth of Cr <sub>2</sub> O <sub>3</sub> blades during alloy scaling in wet CO <sub>2</sub> gas. <i>Corrosion Science</i> , 2018, 133, 432-442.	6.6	20
118	Cellular morphologies in a de-alloying residue. <i>Philosophical Magazine Letters</i> , 1987, 55, 109-114.	1.2	19
119	Sulphide formation after pre-oxidation of chromia formers. <i>Corrosion Science</i> , 1996, 38, 1877-1897.	6.6	19
120	Effect of Zr Additions on the Oxidation Kinetics of FeCrAlY Alloys in Low and High pO <sub>2</sub> Gases. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2011, 42, 1173-1183.	2.2	19
121	Morphology of oxide scales formed on chromium-silicon alloys at high temperatures. <i>Corrosion Science</i> , 2020, 176, 109023.	6.6	19
122	High temperature carbon corrosion in solid oxide fuel cells. <i>Materials at High Temperatures</i> , 2003, 20, 129-136.	1.0	19
123	Preparation and properties of raney nickel-cobalt catalysts. <i>Journal of Catalysis</i> , 1983, 84, 189-199.	6.2	18
124	Effect of nanocrystallization on the corrosion resistance of K38G superalloy in CO + CO <sub>2</sub> atmospheres. <i>Oxidation of Metals</i> , 1997, 48, 497-509.	2.1	18
125	Internal oxidation and metal dusting of Fe–Si alloys. <i>Corrosion Science</i> , 2010, 52, 3280-3286.	6.6	18
126	Nano-crystalline coating to improve cyclic oxidation resistance of 304 stainless steel. <i>Surface and Coatings Technology</i> , 2013, 217, 162-171.	4.8	18



#	ARTICLE	IF	CITATIONS
127	Corrosion resistance of chromised and aluminised coatings in wet CO <sub>2</sub> gas at 650 Å°C. Surface and Coatings Technology, 2017, 316, 226-238.	4.8	18
128	Performance of an FeCrAl alloy in a high-temperature CO <sub>2</sub> environment. Corrosion Science, 2018, 139, 267-274.	6.6	18
129	The CU PAO: A Minimally Invasive, 2-Incision, Interlocking Periacetabular Osteotomy. Journal of Bone and Joint Surgery - Series A, 2019, 101, 1495-1504.	3.0	18
130	Effect of silicon on corrosion of Fe-20Cr and Fe-20Cr-20Ni alloys in wet CO <sub>2</sub> with and without HCl at 650 Å°C. Corrosion Science, 2021, 179, 109096.	6.6	18
131	Improvements to raney copper methanol synthesis catalysts through zinc impregnation. Applied Catalysis, 1991, 77, 89-94.	0.8	17
132	Sulfur Effect on Corrosion Behavior of Fe-20Cr-(Mn, Si) and Fe-20Ni-20Cr-(Mn, Si) in CO <sub>2</sub> -H <sub>2</sub> O at 650Å°C. Journal of the Electrochemical Society, 2016, 163, C106-C115.	2.9	17
133	Pressure Effects in the Oxidation of Chromium. Journal of the Electrochemical Society, 1977, 124, 775-779.	2.9	16
134	Coke deposition on and removal from metals and heat-resistant alloys under steam-cracking conditions. Journal of Materials Science, 1986, 21, 4376-4384.	3.7	16
135	Predicting Internal Oxidation: Building on the Wagner Model. Materials Science Forum, 0, 696, 1-11.	0.3	16
136	Active Oxidation of Liquid Silicon: Experimental Investigation of Kinetics. Oxidation of Metals, 2012, 78, 363-376.	2.1	16
137	Metal Dusting: Catastrophic Corrosion by Carbon. Jom, 2012, 64, 1461-1469.	1.9	16
138	Water Vapour Effects on FeO Scale Growth: Differences Between Iron and Steel. Oxidation of Metals, 2013, 79, 445-460.	2.1	16
139	Martensite formation in Feâ€“9Cr alloys exposed to low carbon activity gas. Scripta Materialia, 2013, 69, 9-12.	5.2	16
140	Discontinuous Precipitation as a Mode of Internal Oxidation. Journal of the Electrochemical Society, 1976, 123, 1758-1760.	2.9	15
141	Pore structure of raney copper according to adsorption and mercury porosimetry. Applied Catalysis, 1984, 12, 43-48.	0.8	15
142	Morphological studies of coking on heat-resistant alloys. Journal of Materials Science, 1985, 20, 4035-4044.	3.7	15
143	Sulfidation Behavior of an Ironâ€“Nickel Alloy. Journal of the Electrochemical Society, 1989, 136, 545-550.	2.9	15
144	Ageing of dealloyed copper. Journal of Materials Science, 1990, 25, 4106-4112.	3.7	15

#	ARTICLE	IF	CITATIONS
145	Effectiveness of platinum and iridium in improving the resistance of Ni-Al to thermal cycling in air-steam mixtures. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2008, 59, 455-462.	1.5	15
146	Effect of alloy composition on the oxidation-induced boron depletion in cast Ni-base superalloy components. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2017, 68, 171-185.	1.5	15
147	Oxygen solubility in austenitic Fe-Ni alloys at high temperatures. <i>Journal of Alloys and Compounds</i> , 2018, 732, 646-654.	5.5	15
148	A new Ti-rich ternary phase in the Ti-Al-O system. <i>Materials Letters</i> , 1995, 22, 125-129.	2.6	14
149	Kinetic and Morphological Development of Internal Precipitates in Iron-Chromium Alloys. <i>Materials Science Forum</i> , 2001, 369-372, 93-100.	0.3	14
150	Corrosion Behaviour of Fe-Cr (Mn, Si) Ferritic Alloys in Wet and Dry CO <sub>2</sub> -SO <sub>2</sub> Atmospheres at 650°C. <i>Oxidation of Metals</i> , 2018, 90, 97-118.	2.1	14
151	Effect of Hydrogen Chloride on Corrosion Behaviour of Fe-Cr Alloys in Wet CO <sub>2</sub> Gas at 650°C. <i>Oxidation of Metals</i> , 2020, 94, 51-80.	2.1	14
152	DEVELOPMENT OF RANEY-TYPE LOW TEMPERATURE METHANOL SYNTHESIS CATALYSTS. <i>Chemical Engineering Communications</i> , 1982, 14, 279-288.	2.6	13
153	Preparation and properties of raney copper forminate catalysts. <i>Journal of Catalysis</i> , 1985, 91, 25-35.	6.2	13
154	Effect of scale constitution on the carburization of heat resistant steels. <i>Oxidation of Metals</i> , 1986, 26, 417-430.	2.1	13
155	Silicide coatings for carburization protection. <i>Materials Science and Engineering</i> , 1987, 88, 81-87.	0.1	13
156	Metal Dusting Reaction Mechanisms. <i>Materials Science Forum</i> , 2006, 522-523, 15-26.	0.3	13
157	Internal Oxidation in Dry and Wet Conditions for Oxygen Permeability of Fe-Ni Alloys at 1150 and 1100°C. <i>Oxidation of Metals</i> , 2017, 87, 273-283.	2.1	13
158	Sulfidation properties of nickel-20 wt.% molybdenum alloy in hydrogen-hydrogen sulfide atmospheres at 700°C. <i>Oxidation of Metals</i> , 1973, 7, 149-161.	2.1	12
159	Diffusional Analysis for Growth of the Monosulfide Scale on Cobalt-Iron Alloys. <i>Journal of the Electrochemical Society</i> , 1980, 127, 679-686.	2.9	12
160	Kinetic and morphological development of oxide-sulfide scales on manganese at 1073 K. <i>Oxidation of Metals</i> , 1992, 37, 301-325.	2.1	12
161	Improvements to Raney copper methanol synthesis catalysts through zinc impregnation. <i>Applied Catalysis A: General</i> , 1993, 95, 65-74.	4.3	12
162	Metal dusting of ferritic Fe-Ge in the absence of cementite. <i>Scripta Materialia</i> , 2007, 56, 281-284.	5.2	12

#	ARTICLE	IF	CITATIONS
163	Carbon Permeability of Nickel and Ni-Cu Alloys. <i>Oxidation of Metals</i> , 2008, 70, 15-24.	2.1	12
164	Effect of gas composition on coking and metal dusting of 2.25Cr-1Mo steel compared with iron. <i>Corrosion Science</i> , 2009, 51, 2983-2993.	6.6	12
165	Effect of water vapour on cyclic oxidation of Fe-Cr alloys. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2011, 62, 496-503.	1.5	12
166	Metal Dusting of Alumina-Forming Creep-Resistant Austenitic Stainless Steels. <i>Oxidation of Metals</i> , 2012, 77, 167-187.	2.1	12
167	Temperature Effects on the Oxidation of Low Carbon Steel in N <sub>2</sub> -H <sub>2</sub> -H <sub>2</sub> O at 800-1200°C. <i>Oxidation of Metals</i> , 2012, 77, 305-323.	2.1	12
168	Impact of the clusterization on the solubility of oxygen and vacancy concentration in nickel: A multi-scale approach. <i>Journal of Alloys and Compounds</i> , 2017, 708, 1063-1072.	5.5	12
169	Low-temperature oxidation of Fe-24 wt.%Cr. <i>Oxidation of Metals</i> , 1979, 13, 437-456.	2.1	11
170	The Precipitation and Dissolution of Zinc during Leaching of Cu-Al-Zn Alloys in Alkali Solutions. <i>Journal of the Electrochemical Society</i> , 1988, 135, 1902-1907.	2.9	11
171	Hydrogen doping effects in the sulfidation of molybdenum. <i>Oxidation of Metals</i> , 1991, 36, 15-25.	2.1	11
172	Kinetic and morphological development of oxide-sulfide scales on iron at 1073 K. <i>Oxidation of Metals</i> , 1992, 37, 281-300.	2.1	11
173	Oxidation resistance of Pt-modified $\beta/\beta^2$ Ni-Al at 1150°C. <i>Surface and Coatings Technology</i> , 2010, 204, 2051-2054.	4.8	11
174	Contributions of carbon permeation and graphite nucleation to the austenite dusting reaction: A study of model Fe-Ni-Cu alloys. <i>Corrosion Science</i> , 2012, 56, 184-193.	6.6	11
175	Oxygen permeability of Fe-Ni-Cr alloys at 1100 and 1150°C under carbon-free and carbon-containing gases. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2017, 68, 197-204.	1.5	11
176	Sulfidation behavior of a binary Fe-Mn alloy. <i>Oxidation of Metals</i> , 1990, 34, 161-172.	2.1	10
177	Understanding Metal Dusting Mechanisms. <i>ECS Transactions</i> , 2009, 16, 3-15.	0.5	10
178	Simultaneous Corrosion of Fe-Si Alloys by Carbon and Oxygen. <i>Journal of the Electrochemical Society</i> , 2010, 157, C375.	2.9	10
179	Effects of Water Vapour on Oxidation. , 2016, , 549-601.		10
180	The effects of molybdenum additions to nickel-chromium alloys on their sulfidation properties. <i>Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science</i> , 1975, 6, 1205-1215.	1.4	9

#	ARTICLE	IF	CITATIONS
181	Cyclic Oxidation Plus Carburization of Heat-Resistant Alloys. Corrosion, 1995, 51, 191-200.	1.1	9
182	Effect of carbide volume fraction on the oxidation of austenitic Fe-Cr-C alloys. Materials and Corrosion - Werkstoffe Und Korrosion, 2006, 57, 467-475.	1.5	9
183	Effects of water vapour and oxygen partial pressures on low carbon steel oxidation in N <sub>2</sub> -H <sub>2</sub> -H <sub>2</sub> O mixtures. Materials and Corrosion - Werkstoffe Und Korrosion, 2012, 63, 869-877.	1.5	9
184	Oxidation behavior of Ni-Al coating with and without a Ni-Re diffusion barrier in dry CO <sub>2</sub> gas at 650 °C. Corrosion Science, 2019, 149, 236-243.	6.6	9
185	Effects of Sulphate Deposits on Corrosion Behaviour of Fe-Based Alloys in Wet CO <sub>2</sub> Gas at 750 °C. Oxidation of Metals, 2021, 95, 23-43.	2.1	9
186	Corrosion behaviour of Fe-25Cr alloy in wet CO <sub>2</sub> gas at 650 °C: Effects of chloride deposits and Si+Mn alloying addition. Corrosion Science, 2022, 195, 110001.	6.6	9
187	Isothermal diffusion in multicomponent ionic solids. Journal of Physics and Chemistry of Solids, 1984, 45, 781-788.	4.0	8
188	Morphological development of oxide-sulfide scales on iron and iron-manganese alloys. Oxidation of Metals, 1987, 28, 165-181.	2.1	8
189	A kinetic and morphological study of the coking of some heat-resistant steels. Journal of Materials Science, 1994, 29, 4357-4370.	3.7	8
190	Mechanisms of the simultaneous sulfidation and oxidation of Fe-Mn alloys. Corrosion Science, 1996, 38, 247-266.	6.6	8
191	Internal Precipitation of Al <sub>2</sub> O <sub>3</sub> and Cr <sub>2</sub> O <sub>3</sub> in Austenitic Alloys. Materials Science Forum, 2004, 461-464, 21-28.	0.3	8
192	Cyclic Oxidation of Heat Resisting Steels. Oxidation of Metals, 2005, 64, 281-301.	2.1	8
193	Diffusion in Metal Dusting Processes. Defect and Diffusion Forum, 0, 289-292, 51-62.	0.4	8
194	Metal Dusting of Nickel-Aluminium Alloys. Oxidation of Metals, 2010, 73, 255-274.	2.1	8
195	Effects of Si, Mn, and water vapour on the microstructure of protective scales grown on Fe <sub>2</sub> O <sub>3</sub> in CO <sub>2</sub> gas. Materials at High Temperatures, 2018, 35, 22-29.	1.0	8
196	Effects of Fe on oxidation of Ni-20Cr and Ni-30Cr alloys at 800 °C in dry CO <sub>2</sub> gas. Corrosion Science, 2020, 173, 108777.	6.6	8
197	Effects of Si, Al and Ti on corrosion of Ni-20Cr and Ni-30Cr alloys in Ar-20CO <sub>2</sub> -20H <sub>2</sub> O gas at 700 °C. Corrosion Science, 2020, 170, 108702.	6.6	8
198	Effects of sulphate deposits on corrosion behaviour of Ni-base alloys in wet CO <sub>2</sub> gas at 750 °C. Corrosion Science, 2021, 181, 109227.	6.6	8

#	ARTICLE	IF	CITATIONS
199	OPTIMISATION OF THE PREPARATION OF RANEY COPPER-ZINC CATALYSTS FOR METHANOL SYNTHESIS. Chemical Engineering Communications, 1984, 26, 163-171.	2.6	7
200	Sulfidation behavior of austeno-ferritic steels. Oxidation of Metals, 1984, 21, 103-118.	2.1	7
201	Morphological evolution during sulfidation of an iron-nickel alloy. Oxidation of Metals, 1989, 31, 105-121.	2.1	7
202	High-temperature-sulfidation behavior of Fe-Mo-Mn-Al alloys. Oxidation of Metals, 1993, 40, 433-460.	2.1	7
203	The effects of manganese additions on the sulfidation behavior of an Fe-28Mo alloy. Corrosion Science, 1994, 36, 401-414.	6.6	7
204	Influence of yttrium on the high temperature corrosion of chromium and Fe-28Cr in CO-CO <sub>2</sub> -N <sub>2</sub> (-SO <sub>2</sub> ) atmospheres. Corrosion Science, 1998, 40, 741-756.	6.6	7
205	Microstructural analysis of carbonitrided austenitic steels. Micron, 2001, 32, 817-824.	2.2	7
206	Metal Dusting of Nickel and its Alloys. ECS Transactions, 2006, 3, 27-41.	0.5	7
207	Carburisation and metal dusting in hydrogen rich gas. Materials at High Temperatures, 2007, 24, 225-232.	1.0	7
208	Surface orientation effects on initial carbon deposition and metal dusting of nickel. Materials at High Temperatures, 2009, 26, 45-55.	1.0	7
209	Influence of Hafnium Additions and Preoxidation Treatment on the Metal Dusting of Ni-Al Alloys. Oxidation of Metals, 2011, 76, 287-305.	2.1	7
210	Oxidation of Fe-Si alloys in CO <sub>2</sub> -H <sub>2</sub> O atmospheres. Materials at High Temperatures, 2011, 28, 297-301.	1.0	7
211	Oxidation and carburisation of Fe-6Al/Fe-6Al-3Si in dry and wet CO <sub>2</sub> gases. Corrosion Science, 2013, 74, 256-264.	6.6	7
212	Oxidation of Alloys I. , 2016, , 193-260.		7
213	The Effect of Water Vapor on NiO Formation by Ni-Cr Alloys at 650°C (HTCPM Focus Issue, FNS-111). Oxidation of Metals, 2021, 96, 57-68.	2.1	7
214	Effect of Temperature on Corrosion Behaviour of Fe-Cr Alloys in Wet CO <sub>2</sub> With and Without HCl Gases. Oxidation of Metals, 2022, 97, 371-400.	2.1	7
215	The Sulfidation Properties of Cobalt-Iron Alloys in Hydrogen Sulfide-Hydrogen Atmospheres at 700°C. Journal of the Electrochemical Society, 1974, 121, 889.	2.9	6
216	Modelling the development of pore structure during the preparation of raney copper catalysts for fixed bed operation. Applied Catalysis, 1987, 35, 321-328.	0.8	6

#	ARTICLE	IF	CITATIONS
217	Thermodynamics of ionic diffusion and oxidation rate equations. Oxidation of Metals, 1988, 29, 169-185.	2.1	6
218	Sulfidation behavior of Fe-27Mn-(0-17.3)Mo(a/o) alloys. Oxidation of Metals, 1993, 40, 245-274.	2.1	6
219	Effects of Lanthanum on Fe-25Cr Alloys under Cyclic Oxidation. Advanced Materials Research, 0, 97-101, 1212-1215.	0.3	6
220	Carburization and Metal Dusting. , 2010, , 272-303.		6
221	Metal dusting behaviour of several nickel and cobalt base alloys in CO <sub>2</sub> /H <sub>2</sub> O atmosphere. Materials and Corrosion - Werkstoffe Und Korrosion, 2011, 62, 521-530.	1.5	6
222	Enabling Theory. , 2016, , 31-84.		6
223	Alloy Oxidation III. , 2016, , 335-392.		6
224	Alloy Oxidation II. , 2016, , 261-333.		6
225	Microstructural characterization of a carbonitrided heat resisting alloy using focused ion beam-based techniques. Materials at High Temperatures, 2005, 22, 351-358.	1.0	6
226	Silicon Contamination During Alloy Oxidation in Water Vapour at 650°C. Oxidation of Metals, 2022, 97, 559-574.	2.1	6
227	Diffusion profiles associated with the onsager matrix in non-equilibrium A-vacancy and A-B-vacancy solutions. Acta Metallurgica, 1987, 35, 1273-1279.	2.1	5
228	Surface Effects in Sulfidation Reactions. Canadian Metallurgical Quarterly, 1991, 30, 227-233.	1.2	5
229	The transition from single to double oxide growth during the high temperature corrosion of a pure metal by a single oxidant. Oxidation of Metals, 1992, 38, 309-322.	2.1	5
230	Kinetic and morphological development of coke formation on heat-resistant alloys. Materials and Corrosion - Werkstoffe Und Korrosion, 1999, 50, 675-680.	1.5	5
231	Internal oxidation processes under non-ideal conditions. Materials at High Temperatures, 2000, 17, 465-470.	1.0	5
232	Selective Oxidation and Sub-surface Phase Transformations in Chromium-bearing Austenitic Steels. Oxidation of Metals, 2005, 63, 277-304.	2.1	5
233	Continuous thermogravimetric analysis during the cyclic oxidation of Ni-22Al-15Pt+1wt.% Hf at 1200°C. Scripta Materialia, 2007, 57, 647-650.	5.2	5
234	Effect of Temperature on Oxidation Behaviour of Ni-Cr Alloys in CO <sub>2</sub> Atmosphere. ECS Transactions, 2017, 75, 19-35.	0.5	5

#	ARTICLE	IF	CITATIONS
235	Uphill diffusion associated with a flux of extrinsic vacancies. Canadian Journal of Physics, 1979, 57, 722-727.	1.1	4
236	High-temperature sulfidation of Fe-Mn-Cr alloys. Oxidation of Metals, 1991, 36, 409-421.	2.1	4
237	The Corrosion Behavior of Sulfidation-Resistant Fe-Mo-Al Alloys in H <sub>2</sub> /H <sub>2</sub> S Atmospheres at 900°C. Oxidation of Metals, 2000, 54, 103-120.	2.1	4
238	Amounts and Distribution of Phases in Sulfide Plus Oxide Scales on Iron. Oxidation of Metals, 2003, 60, 447-465.	2.1	4
239	Corrosion by Sulphur. , 2016, , 393-430.		4
240	Oxidation of Pure Metals. , 2016, , 85-144.		4
241	Effects of Fe on Oxidation of Ni-20Cr and Ni-30Cr Alloys at 800°C in Wet CO <sub>2</sub> Gas. Oxidation of Metals, 2020, 94, 219-233.	2.1	4
242	Phototarnishing of silver by alkyl iodides. Transactions of the Faraday Society, 1969, 65, 3355.	0.9	3
243	The phototarnishing of silver and copper. Part II. Oxidation of Metals, 1975, 9, 117-126.	2.1	3
244	Diffusion in ionic solids. Scripta Metallurgica, 1975, 9, 159-163.	1.2	3
245	Improvements to Raney Copper Methanol Synthesis Catalysts Through Zinc Impregnation. III. Activity Testing. Studies in Surface Science and Catalysis, 1988, 36, 239-243.	1.5	3
246	High Temperature Corrosion of Fe-Cr, Fe-Al, Fe-Si and Fe-Si-Al Alloys in CO <sub>2</sub> -H <sub>2</sub> O Gases. Materials Science Forum, 2010, 654-656, 1948-1951.	0.3	3
247	Diffusion in Internal Oxidation Reactions. Defect and Diffusion Forum, 0, 323-325, 283-288.	0.4	3
248	Corrosion by Carbon Dioxide. , 2016, , 495-547.		3
249	Simultaneous Oxidation and Metal Dusting of Fe-Si Alloys. ECS Transactions, 2009, 25, 57-69.	0.5	2
250	Mixed Gas Corrosion of Pure Metals. , 2016, , 145-191.		2
251	Kinetics of chlorination of metallic sodium at low temperatures. Oxidation of Metals, 1973, 7, 77-93.	2.1	1
252	Parabolic growth of solid-solution scales: Effect of deviations from stoichiometry. Oxidation of Metals, 1988, 30, 391-403.	2.1	1

#	ARTICLE	IF	CITATIONS
253	Effect of the deviation from stoichiometry on the activity of pure oxides and of oxide solid solutions. Journal of Physics and Chemistry of Solids, 1989, 50, 415-421.	4.0	1
254	Reoxidation of hot briquetted iron in salt water. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2000, 31, 1133-1135.	2.1	1
255	Effect of Copper on the Dusting of Fe-Ni Alloys. ECS Transactions, 2012, 41, 37-46.	0.5	1
256	Cyclic Oxidation. , 2016, , 647-683.		1
257	Corrosion Behavior of Cr-Containing Alloys under Cyclic Reaction in Wet CO <sub>2</sub> Gas at 650°C. Oxidation of Metals, 2021, 96, 105-116.	2.1	1
258	Effects of yttrium and zirconium additions on the high-temperature sulfidation behavior of an Fe-10Mo-20Al-8Mn alloy. Oxidation of Metals, 1994, 42, 485-509.	2.1	1
259	A technique for the vacuum deposition of alkali metals. Journal of Vacuum Science and Technology, 1974, 11, 1131-1132.	1.9	0
260	Conduction Mechanisms in Alkali Metal Vapor Electrolysis Cells. Journal of the Electrochemical Society, 1976, 123, 1052-1056.	2.9	0
261	Corrosion by Carbon. , 2016, , 431-493.		0
262	Alloy Design. , 2016, , 685-701.		0
263	Corrosion in Complex Environments. , 2016, , 603-645.		0
264	(Invited) High Temperature Corrosion of Chromia-Forming Alloys By CO <sub>2</sub> : Effects of H <sub>2</sub> O and SO <sub>2</sub> . ECS Meeting Abstracts, 2018, , .	0.0	0