

# N Stewart McIntyre

## List of Publications by Year in descending order

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79  
papers

7,018  
citations

236925  
25  
h-index

71685  
76  
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82  
all docs

82  
docs citations

82  
times ranked

11886  
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigation of multiplet splitting of Fe 2p XPS spectra and bonding in iron compounds. Surface and Interface Analysis, 2004, 36, 1564-1574.	1.8	2,742
2	New interpretations of XPS spectra of nickel metal and oxides. Surface Science, 2006, 600, 1771-1779.	1.9	1,663
3	X-ray photoelectron spectroscopy studies of chromium compounds. Surface and Interface Analysis, 2004, 36, 1550-1563.	1.8	419
4	Interactions of CO <sub>2</sub> and CO at fractional atmosphere pressures with iron and iron oxide surfaces: one possible mechanism for surface contamination?. Surface and Interface Analysis, 2002, 33, 299-305.	1.8	234
5	X-ray photoelectron spectroscopic studies of thin film oxides of cobalt and molybdenum. Surface and Interface Analysis, 1990, 15, 265-272.	1.8	223
6	Nitrogen plasma treatment of polyethylene and polystyrene in a remote plasma reactor. Journal of Applied Polymer Science, 1990, 40, 1903-1915.	2.6	104
7	X-ray Photoelectron Studies of the Aqueous Oxidation of Inconel 600 Alloy. Journal of the Electrochemical Society, 1979, 126, 750-760.	2.9	99
8	Characterization of oxide structures formed on nickel-chromium alloy during low pressure oxidation at 500-600°C. Oxidation of Metals, 1990, 33, 457-479.	2.1	87
9	XPS Characterization of the Corrosion Films Formed on Nanocrystalline Ni-P Alloys in Sulphuric Acid. Surface and Interface Analysis, 1996, 24, 181-186.	1.8	82
10	Study of ultraviolet light and ozone surface modification of polypropylene. Journal of Polymer Science Part A, 1999, 37, 2489-2501.	2.3	82
11	Structure and growth of oxides on polycrystalline nickel surfaces. Surface and Interface Analysis, 2007, 39, 582-592.	1.8	71
12	An x-ray photoelectron spectroscopy study on ozone treated GaAs surfaces. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1986, 4, 984-988.	2.1	70
13	Adventitious carbon growth on aluminium and gold-aluminium alloy surfaces. Surface and Interface Analysis, 2002, 33, 591-594.	1.8	67
14	Use of QUASES/XPS measurements to determine the oxide composition and thickness on an iron substrate. Surface and Interface Analysis, 2004, 36, 632-639.	1.8	62
15	Suppression of molecular ions in the secondary ion mass spectra of minerals. Surface and Interface Analysis, 1983, 5, 181-185.	1.8	57
16	Comment on "Curve Fitting of Cr 2p Photoelectron Spectra of Cr <sub>2</sub> O <sub>3</sub> and CrF <sub>3</sub> ". Surface and Interface Analysis, 1996, 24, 529-530.	1.8	57
17	Bilayer and Odd-Numbered Multilayers of Octadecylphosphonic Acid Formed on a Si Substrate Studied by Atomic Force Microscopy. Langmuir, 2002, 18, 2955-2958.	3.5	49
18	Studies of the UV/Ozone oxidation of GaAs using angle-resolved x-ray photoelectron spectroscopy. Surface and Interface Analysis, 1990, 15, 19-26.	1.8	44

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19	Molecular Organization Revealed by Time-of-Flight Secondary Ion Mass Spectrometry of a Clinically Used Extracted Pulmonary Surfactant. <i>Langmuir</i> , 2003, 19, 3698-3704.	3.5	41
20	Studies of the oxidation of iron by air after being exposed to water vapour using angle-resolved x-ray photoelectron spectroscopy and QUASES. <i>Surface and Interface Analysis</i> , 2004, 36, 1637-1641.	1.8	40
21	Modification of polymer surfaces by two-step plasma sensitized reactions. <i>Journal of Polymer Science Part A</i> , 1990, 28, 803-809.	2.3	39
22	The open-circuit ennoblement of alloy C-22 and other Ni-Cr-Mo alloys. <i>Jom</i> , 2005, 57, 31-35.	1.9	39
23	Resolution enhancement of x-ray photoelectron spectra by maximum entropy deconvolution. <i>Surface and Interface Analysis</i> , 1998, 26, 195-203.	1.8	30
24	SIMS studies of hydrogen diffusion through oxides on Zr <sub>5</sub> Nb alloy. <i>Surface and Interface Analysis</i> , 1991, 17, 757-763.	1.8	27
25	Oxidation studies of Au-Al alloys using x-ray photoelectron spectroscopy (XPS) and x-ray absorption near-edge structure (XANES). <i>Surface and Interface Analysis</i> , 2001, 31, 874-880.	1.8	27
26	Reactions of polyethylene surfaces with the downstream products of an air plasma: Gas phase and surface spectroscopic studies. <i>Journal of Polymer Science Part A</i> , 1996, 34, 2299-2310.	2.3	25
27	Topographic Correction of 3D SIMS Images. <i>Surface and Interface Analysis</i> , 1997, 25, 788-789.	1.8	25
28	Channeling effects in polycrystalline copper—a serious impediment to quantitative Auger analysis?. <i>Surface and Interface Analysis</i> , 1984, 6, 282-285.	1.8	24
29	An x-ray photoelectron spectroscopy study on ozone treated InP surfaces. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 1987, 5, 1621-1624.	2.1	24
30	Application of parallel factor analysis and x-ray photoelectron spectroscopy to the initial stages in oxidation of aluminium. II. The O 1s photoelectron line. <i>Surface and Interface Analysis</i> , 1999, 27, 1037-1045.	1.8	23
31	Microscopic Stripe Formation and Adhesion Force Increase Introduced by Local Shear-Stress Deformation of Polypropylene Film. <i>Langmuir</i> , 1999, 15, 6484-6489.	3.5	22
32	Addition of a single chemical functional group to a polymer surface with a mass-separated low-energy ion beam. <i>Surface and Interface Analysis</i> , 1995, 23, 873-878.	1.8	21
33	XPS studies of octadecylphosphonic acid (OPA) monolayer interactions with some metal and mineral surfaces. <i>Surface and Interface Analysis</i> , 2005, 37, 749-754.	1.8	21
34	A Simple and Effective Method of Evaluating Atomic Force Microscopy Tip Performance. <i>Langmuir</i> , 2001, 17, 432-436.	3.5	19
35	Use of image depth profiling SIMS for the study of tinplate corrosion. <i>Surface and Interface Analysis</i> , 1994, 21, 177-183.	1.8	18
36	Study of tinplate structure using imaging secondary ion spectrometry. <i>Surface and Interface Analysis</i> , 1991, 17, 834-841.	1.8	17

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37	The infinite velocity method: A new method for SIMS quantification. Surface and Interface Analysis, 1994, 21, 747-757.	1.8	17
38	Stabilization of charge on electrically insulating surfaces during SIMS experiments—experimental and theoretical studies of the specimen isolation method. Surface and Interface Analysis, 1985, 7, 275-281.	1.8	16
39	Analysis of zirconium-niobium pressure tube surfaces for hydrogen using secondary ion mass spectrometry (SIMS). Surface and Interface Analysis, 1990, 15, 591-597.	1.8	16
40	Use of biaxially oriented polypropylene film for evaluating and cleaning contaminated atomic force microscopy probe tips: An application to blind tip reconstruction. Review of Scientific Instruments, 2002, 73, 3831-3836.	1.3	16
41	Mechanisms for pitting corrosion in alloy N04400 as revealed by imaging XPS, ToF-SIMS and low-voltage SEM. Surface and Interface Analysis, 2002, 33, 29-34.	1.8	16
42	XPS imaging investigations of pitting corrosion mechanisms in Inconel 600. Surface and Interface Analysis, 2005, 37, 478-494.	1.8	16
43	ToF-SIMS Investigation of Octadecylphosphonic Acid Monolayers on a Mica Substrate. Langmuir, 2006, 22, 9244-9250.	3.5	16
44	Application of parallel factor analysis and x-ray photoelectron spectroscopy to the initial stages in oxidation of aluminium. I. The Al 2p photoelectron line. Surface and Interface Analysis, 1999, 27, 618-628.	1.8	15
45	Atomic Force Microscopy Study of Biaxially Oriented Polypropylene Films. Journal of Materials Engineering and Performance, 2004, 13, 451-460.	2.5	14
46	XPS characterization of the corrosion film formed on the electroless nickel deposit prepared using different stabilizers in NaCl solution. Surface and Interface Analysis, 2007, 39, 405-414.	1.8	13
47	The study of stress application and corrosion cracking on Ni-16 Cr-9 Fe (Alloy 600) C-ring samples by polychromatic X-ray microdiffraction. Acta Materialia, 2012, 60, 781-792.	7.9	13
48	SIMS imaging studies of the corrosion of alloy 800 and alloy 600 surfaces under secondary side boiler conditions. Surface and Interface Analysis, 1992, 18, 601-603.	1.8	12
49	Quantitative XPS Measurements of Some Oxides, Sulphides and Complex Minerals. Surface and Interface Analysis, 1996, 24, 591-596.	1.8	12
50	Study of residual elastic- and plastic-deformation in uniaxial tensile strained nickel-based Alloy 600 samples by polychromatic X-ray microdiffraction (PXM) and neutron diffraction methods. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2009, 524, 20-27.	5.6	11
51	Remote Internet Access to Advanced Analytical Facilities: A New Approach with Web-Based Services. Analytical Chemistry, 2012, 84, 7283-7291.	6.5	10
52	Application of the infinite velocity method for quantifying negative secondary ion emissions to multi-layered samples. Surface and Interface Analysis, 1995, 23, 163-170.	1.8	9
53	ToF-SIMS studies of the oxidation of Fe by D <sub>2</sub> O vapour: comparison with XPS. Surface and Interface Analysis, 2005, 37, 495-498.	1.8	9
54	Gas Phase Initial Oxidation of Incoloy 800 Surfaces. Oxidation of Metals, 2013, 79, 179-200.	2.1	8

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55	Suppression of molecular ions in SIMS spectra of metals and semiconductors. Surface and Interface Analysis, 1985, 7, 69-73.	1.8	7
56	Analysis of three-dimensional SIMS images using image cross-correlation spectroscopy. Surface and Interface Analysis, 1998, 26, 188-194.	1.8	7
57	Plastic and elastic strains in short and long cracks in Alloy 600 studied by polychromatic X-ray microdiffraction and electron backscatter diffraction. Acta Materialia, 2012, 60, 5508-5515.	7.9	7
58	Uses of SIMS three dimensional imaging to understand the relationships between grain boundary chemistry, orientation and intergranular degradation. Surface and Interface Analysis, 2002, 33, 447-452.	1.8	6
59	Studies of initial oxidation of nickel-chromium alloys: Surface annealing by hydrogen ion bombardment. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1986, 4, 1866-1874.	2.1	5
60	Use of Zr <sup>2+</sup> secondary ion energy distributions and factor analysis to construct chemical-state depth profiles in SIMS. Surface and Interface Analysis, 1995, 23, 573-580.	1.8	5
61	Imaging of oxidized mineral surfaces. Surface and Interface Analysis, 1998, 26, 869-871.	1.8	5
62	Surface studies of (111) facets of cBN mini-crystals. Surface and Interface Analysis, 1999, 27, 698-704.	1.8	5
63	Static SIMS studies of fatty alcohols, amines and esters on gold and aluminium-magnesium alloy surfaces. Surface and Interface Analysis, 2005, 37, 499-508.	1.8	5
64	Reactions on thin films of cobalt-molybdenum oxides: I. characterization of molybdenum and cobalt oxide species by high resolution XPS. Surface and Interface Analysis, 1986, 9, 253-254.	1.8	4
65	Reactions on thin films of cobalt-molybdenum oxides: II. Reduction, sulphidation and hydrodesulphurization (HDS) activities. Surface and Interface Analysis, 1986, 9, 255-257.	1.8	4
66	Sims image analysis of D2O migration in ZrO <sub>2</sub> thin films. Surface and Interface Analysis, 1997, 25, 948-951.	1.8	4
67	Use of ToF-SIMS in the study of corrosion processes: Monel 400 steam generator tubing under CANDU start-up conditions. Surface and Interface Analysis, 2002, 34, 189-191.	1.8	4
68	SIMS imaging of insulator surfaces. Surface and Interface Analysis, 1993, 20, 1000-1006.	1.8	3
69	Enhancement of the positive secondary ion yield during low-energy, dual-beam depth profiling of polytetrafluoroethylene with 1-keV Cs <sup>+</sup> . Surface and Interface Analysis, 2005, 37, 743-748.	1.8	3
70	X-ray Micro Laue Diffraction and Neutron Diffraction Analysis of Residual Elastic Strains in a 1% Uniaxial Tensile Tested Nickel Alloy 600 Sample. Materials Research Society Symposia Proceedings, 2008, 1137, 102801.	0.1	3
71	Acquisition, Sharing, and Processing of Large Data Sets for Strain Imaging: An Example of an Indented Ni <sub>3</sub> Al/Mo Composite. Jom, 2013, 65, 29-34.	1.9	2
72	Spatial chemical analysis of polymer laminates and conducting organic films using SIMS. Surface and Interface Analysis, 1986, 8, 195-203.	1.8	1

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73	Studies on the determination of surface deuterium in AISI 1062, 4037, and 4140 steels by secondary ion mass spectrometry. Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science, 1988, 19, 3071-3075.	1.4	1
74	Effects of temperature and Ar <sup>+</sup> ion bombardment on the initial oxidation stages of polycrystalline aluminium with water vapour. Surface and Interface Analysis, 2001, 31, 1068-1073.	1.8	1
75	X-ray photoelectron study of oxides formed on Ni metal and Ni-Cr alloy surfaces under electrochemical control at 25°C and 150°C. Surface and Interface Analysis, 2017, 49, 1316-1324.	1.8	1
76	Mapping of changes in microscopic strain in Alloy 600 during multi-step applications of mechanical stress. Surface and Interface Analysis, 2017, 49, 1442-1448.	1.8	1
77	Interfacial Reactions between SF <sub>6</sub> and Molten Magnesium. , 0, , 37-41.		1
78	XPS Studies of the Interface Properties of Conductive Adhesive/Eutectic Solder. Materials Research Society Symposia Proceedings, 1995, 390, 219.	0.1	0
79	A spectroscopic study of leak failures in cross-linked polyethylene tubing used in domestic water supply systems. Surface and Interface Analysis, 2017, 49, 1366-1371.	1.8	0