

Art J Nelson

List of Publications by Year in descending order

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75
papers

1,223
citations

394286

19
h-index

414303

32
g-index

75
all docs

75
docs citations

75
times ranked

1825
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultralow Density, Monolithic WS ₂ , MoS ₂ , and MoS ₂ /Graphene Aerogels. ACS Nano, 2015, 9, 4698-4705.	7.3	159
2	Toward Macroscale, Isotropic Carbons with Graphene-like Electrical and Mechanical Properties. Advanced Functional Materials, 2014, 24, 4259-4264.	7.8	95
3	Composition and structure of thermal oxides of indium phosphide. Journal of Applied Physics, 1983, 54, 4134-4140.	1.1	54
4	Photoemission investigation of the electronic structure at polycrystalline CuInSe ₂ film interfaces. Journal of Applied Physics, 1993, 74, 5757-5760.	1.1	52
5	Enhanced Delamination of Ultrathin Free-Standing Polymer Films via Self-Limiting Surface Modification. Langmuir, 2014, 30, 5126-5132.	1.6	48
6	Theoretical and experimental studies of the ZnSe/CuInSe ₂ heterojunction band offset. Applied Physics Letters, 1993, 62, 2557-2559.	1.5	45
7	MOF-derived Co/Cu-embedded N-doped carbon for trifunctional ORR/OER/HER catalysis in alkaline media. Dalton Transactions, 2021, 50, 5473-5482.	1.6	44
8	Boron Doping and Defect Engineering of Graphene Aerogels for Ultrasensitive NO ₂ Detection. Journal of Physical Chemistry C, 2018, 122, 20358-20365.	1.5	41
9	Optical properties of ZnS _{1-x} Se _x alloys fabricated by plasma-induced isoelectronic substitution. Journal of Applied Physics, 2000, 87, 8557-8560.	1.1	37
10	Increasing the oxidative stability of poly(dicyclopentadiene) aerogels by hydrogenation. Polymer, 2013, 54, 542-547.	1.8	34
11	Characterization of the native oxide of CuInSe ₂ using synchrotron radiation photoemission. Applied Physics Letters, 1990, 57, 1428-1430.	1.5	31
12	Equation of state of boron nitride combining computation, modeling, and experiment. Physical Review B, 2019, 99, .	1.1	28
13	Gold Aerogel Monoliths with Tunable Ultralow Densities. Nano Letters, 2020, 20, 131-135.	4.5	28
14	Synchrotron-radiation photoemission study of CdS/CuInSe ₂ heterojunction formation. Physical Review B, 1990, 42, 7518-7523.	1.1	27
15	Soft x-ray photoemission characterization of the H ₂ S exposed surface of p-InP. Journal of Applied Physics, 1992, 71, 6086-6089.	1.1	24
16	Prediction and observation of In ₂ Se ₃ /CuInSe ₂ heterojunction band offsets. Journal of Electron Spectroscopy and Related Phenomena, 1994, 68, 185-193.	0.8	24
17	Low temperature oxidation of plutonium. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2013, 31, .	0.9	22
18	Critical Impact of Graphene Functionalization for Transition Metal Oxide/Graphene Hybrids on Oxygen Reduction Reaction. Journal of Physical Chemistry C, 2018, 122, 10017-10026.	1.5	22

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19	3D Printed Nickel-Molybdenum-Based Electrocatalysts for Hydrogen Evolution at Low Overpotentials in a Flow-Through Configuration. ACS Applied Materials & Interfaces, 2021, 13, 20260-20268.	4.0	22
20	An XPS study on the impact of relative humidity on the aging of UO ₂ powders. Journal of Nuclear Materials, 2017, 487, 105-112.	1.3	20
21	Valence-band electronic structure of Zn ₃ P ₂ as a function of annealing as studied by synchrotron radiation photoemission. Journal of Applied Physics, 1990, 67, 1393-1396.	1.1	19
22	Photoemission characterization of the H ₂ plasma etched surface of InP. Journal of Applied Physics, 1991, 70, 5619-5622.	1.1	16
23	Comparison of polycrystalline Cu(In,Ga)Se ₂ device efficiency with junction depth and interfacial structure. Journal of Applied Physics, 1995, 78, 269-272.	1.1	16
24	Three-Dimensional Printed MoS ₂ /Graphene Aerogel Electrodes for Hydrogen Evolution Reactions. ACS Materials Au, 2022, 2, 596-601.	2.6	16
25	Scanning photoelectron microscopy study of the laser-induced transformations of polycrystalline CdTe films. Journal of Applied Physics, 2000, 87, 3520-3525.	1.1	15
26	Comprehensive characterization of engine deposits from fuel containing MMT [®] . Science of the Total Environment, 2002, 295, 183-205.	3.9	15
27	Photoemission study of CdS heterojunction formation with binary selenide semiconductors. Journal of Applied Physics, 1995, 78, 5701-5705.	1.1	14
28	Processing and characterization of large-grain thin film CdTe. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 2803-2807.	0.9	13
29	Novel method for growing CdS on CdTe surfaces for passivation of surface states and heterojunction formation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1997, 15, 1119-1123.	0.9	13
30	Parabolic oxidation kinetics of a plutonium alloy at room temperature. Corrosion Science, 2021, 187, 109527.	3.0	13
31	Electroanalytical Measurements of Oxide Ions in Molten CaCl ₂ on W electrode. Journal of the Electrochemical Society, 2021, 168, 097502.	1.3	13
32	Surface type conversion of InP by H ₂ S plasma exposure: A photoemission investigation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1993, 11, 1022-1027.	0.9	12
33	How an angstrom-thick oxide overcoat enhances durability and activity of nanoparticle-decorated cathodes in solid oxide fuel cells. Journal of Materials Chemistry A, 2020, 8, 15927-15935.	5.2	12
34	Trace amount of ceria incorporation by atomic layer deposition in Co/CoO _x -embedded N-doped carbon for efficient bifunctional oxygen electrocatalysis: Demonstration and quasi-operando observations. International Journal of Hydrogen Energy, 2021, 46, 38258-38269.	3.8	12
35	Valency and type conversion in CuInSe ₂ with H ₂ plasma exposure: A photoemission investigation. Journal of Applied Physics, 1993, 73, 8561-8564.	1.1	11
36	Formation and Schottky barrier height of Au contacts to CuInSe ₂ . Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1991, 9, 978-982.	0.9	10

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37	Chemistry and electronic structure of the H ₂ plasma passivated surface of CdTe. <i>Journal of Applied Physics</i> , 1994, 75, 1632-1637.	1.1	10
38	Investigation of chemical wet-etch surface modification of Ga _{0.5} In _{0.5} P using photoluminescence, x-ray photoelectron spectroscopy, capacitance measurements, and photocurrent-voltage curves. <i>The Journal of Physical Chemistry</i> , 1995, 99, 744-749.	2.9	10
39	X-Ray absorption spectroscopy of thiocrown compounds used in the remediation of mercury contaminated water. <i>Microchemical Journal</i> , 2002, 71, 247-254.	2.3	9
40	Relative impact of H ₂ O and O ₂ in the oxidation of UO ₂ powders from 50 to 300°C. <i>Journal of Nuclear Materials</i> , 2017, 496, 353-361.	1.3	9
41	Application of linear least squares to the analysis of Auger electron spectroscopy depth profiles of plutonium oxides. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2018, 36, .	0.9	9
42	Layered III-VI chalcogenide semiconductor crystals for radiation detectors. <i>Proceedings of SPIE</i> , 2008, , .	0.8	8
43	Surface processing of TlBr for improved gamma spectroscopy. , 2010, , .		8
44	Highly Active Bifunctional Oxygen Electrocatalytic Sites Realized in Ceria-Functionalized Graphene. <i>Advanced Sustainable Systems</i> , 2020, 4, 2000048.	2.7	8
45	Mercury L ₃ and sulfur K-edge studies of Hg-bound thiocrowns and back-extracting agents used in mercury remediation. <i>Microchemical Journal</i> , 2005, 81, 3-11.	2.3	7
46	Measurement of the Auger parameter and Wagner plot for uranium compounds. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2013, 31, .	0.9	7
47	Variation in plutonium dioxide sputter yields for 1-5 keV Ar ⁺ ions. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2020, 38, .	0.9	7
48	Formation of a Silver-Rich Surface Layer on Electrodeposited CdTe. <i>Journal of the Electrochemical Society</i> , 1994, 141, 529-534.	1.3	6
49	X-ray excited Auger transitions of Pu compounds. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2015, 33, .	0.9	5
50	Transformations of Ti-5Al-5V-5Cr-3Mo powder due to reuse in laser powder bed fusion: A surface analytical approach. <i>Applied Surface Science</i> , 2021, 564, 150433.	3.1	5
51	Iridium optical constants from synchrotron reflectance measurements over 0.05- to 12-keV x-ray energies. , 2004, , .		5
52	Surface modification of organic powders for enhanced rheology via atomic layer deposition. <i>Advanced Powder Technology</i> , 2020, 31, 2521-2529.	2.0	4
53	Photoemission characterization of the H ₂ plasma-etched surface of CdS. <i>Journal of Applied Physics</i> , 1992, 72, 5881-5887.	1.1	3
54	A Photoemission Investigation of the Interfacial Electronic Properties of Mo and Ni Schottky Barriers to CuInSe ₂ (112). <i>Materials Research Society Symposia Proceedings</i> , 1992, 260, 299.	0.1	3

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55	Exploration of GaTe for gamma detection. , 2007, , .		3
56	Synchrotron radiation photoemission study of the electronic structure of the filled tetrahedral semiconductors LiZnAs and LiZnP. Journal of Electron Spectroscopy and Related Phenomena, 1990, 51, 623-628.	0.8	2
57	Surface type conversion of CuInSe ₂ with H ₂ S plasma exposure: A photoemission investigation. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1995, 13, 1990-1993.	0.9	2
58	Current Reduction of CdZnTe via Band Gap Engineering. IEEE Transactions on Nuclear Science, 2013, 60, 1208-1212.	1.2	2
59	Improvements in room temperature lifetime of pixelated TlBr detectors from surface etching. , 2015, , .		2
60	XPS and SIMS study of the surface and interface of aged C+ implanted uranium. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	2
61	Observation of Fundamental Mechanisms in Compression-Induced Phase Transformations Using Ultrafast X-ray Diffraction. Jom, 2021, 73, 2185-2193.	0.9	2
62	Study of cluster ions produced from ToF-SIMS analysis of a U-6%Nb target. Nuclear Instruments & Methods in Physics Research B, 2022, 515, 37-47.	0.6	2
63	Quantitative XPS of plutonium: Evaluation of the Pu4f peak shape, relative sensitivity factors and estimated detection limits. Surface and Interface Analysis, 2022, 54, 710-723.	0.8	2
64	Investigation on the effect of isoelectronic substitution in ZnS _{1-x} Se _x alloys. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 1994, 12, 1090-1093.	0.9	1
65	Epitaxial Growth and Characterization of the Ordered Vacancy Compound CuIn ₃ Se ₅ on GaAs (100) Fabricated by Molecular Beam Epitaxy. Materials Research Society Symposia Proceedings, 1994, 340, 599.	0.1	1
66	Growth and Characterization of the Binary Defect Alloy Cu _{2-x} Se and the Relation to II-VI/III-VI Heterojunction Formation. Materials Research Society Symposia Proceedings, 1995, 378, 249.	0.1	1
67	Polymer Pendant Crown Thioethers for Removal of Mercury from Acidic Waste Streams-Characterization and Extraction Performance. Materials Research Society Symposia Proceedings, 2002, 757, II11.9.1.	0.1	1
68	World oxygen supply. Physics Today, 1978, 31, 98-99.	0.3	0
69	Soft X-ray photoemission investigation of the CdS/CuInSe ₂ heterojunction interface. Applied Surface Science, 1991, 48-49, 419-424.	3.1	0
70	Soft X-ray photoemission investigation on the effect of In doping in CdS/CuInSe ₂ heterojunction formation. Journal of Applied Physics, 1992, 72, 5888-5891.	1.1	0
71	Photoemission Investigation on The Effect of H ₂ S Plasma Exposure of InP. Materials Research Society Symposia Proceedings, 1993, 315, 181.	0.1	0
72	Characterizing the Thermomechanical Degradation of a Filled Elastomer by Morphology and X Ray Photoelectron Spectroscopy. Materials Research Society Symposia Proceedings, 2001, 702, 1.	0.1	0

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73	Amorphous semiconductor blocking contacts on CdZnTe gamma detectors. , 2009, , .		0
74	XPS Investigation on Changes in UO ₂ Speciation following Exposure to Humidity. MRS Advances, 2016, 1, 2993-2997.	0.5	0
75	Diffusivity of Pt in Ba _x Sr _{1-x} TiO ₃ by XPS Compositional Depth Profiling. Advances in X-ray Analysis, 1995, 39, 885-889.	0.0	0