Ivan Blum

List of Publications by Year
in descending order

58	4,828	394421 19	175258 52
papers	citations	h-index	g-index

61	61	61	5354
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-performance bulk thermoelectrics with all-scale hierarchical architectures. Nature, 2012, 489, 414-418.	27.8	3,767
2	Composition of Wide Bandgap Semiconductor Materials and Nanostructures Measured by Atom Probe Tomography and Its Dependence on the Surface Electric Field. Journal of Physical Chemistry C, 2014, 118, 24136-24151.	3.1	135
3	Morphology Control of Nanostructures: Na-Doped PbTeâ€“PbS System. Nano Letters, 2012, 12, 5979-5984.	9.1	100
4	Correlation of Microphotoluminescence Spectroscopy, Scanning Transmission Electron Microscopy, and Atom Probe Tomography on a Single Nano-object Containing an InGaN/GaN Multiquantum Well System. Nano Letters, 2014, 14, 107-114.	9.1	70
5	Three-dimensional nanoscale study of Al segregation and quantum dot formation in GaAs/AlGaAs core-shell nanowires. Applied Physics Letters, 2014, 105, .	3.3	45
6	Simulation of field-induced molecular dissociation in atom-probe tomography: Identification of a neutral emission channel. Physical Review A, 2017, 95, .	2.5	43
7	Composition measurement of the Ni-silicide transient phase by atom probe tomography. Applied Physics Letters, 2010, 96, .	3.3	37
8	Kinetics of a transient silicide during the reaction of Ni thin film with (100)Si. Applied Physics Letters, 2009, 95, 181902.	3.3	34
9	Dopant Distributions in PbTe-Based Thermoelectric Materials. Journal of Electronic Materials, 2012, 41, 1583-1588.	2.2	30
10	Multi-microscopy study of the influence of stacking faults and three-dimensional In distribution on the optical properties of m-plane InGaN quantum wells grown on microwire sidewalls. Applied Physics Letters, 2016, 108, .	3.3	28
11	Energy deficit of pulsed-laser field-ionized and field-emitted ions from non-metallic nano-tips. Journal of Applied Physics, 2014, 115, .	2.5	27
12	Compositional accuracy of atom probe tomography measurements in GaN: Impact of experimental parameters and multiple evaporation events. Ultramicroscopy, 2018, 187, 126-134.	1.9	27
13	Dissociation Dynamics of Molecular Ions in High dc Electric Field. Journal of Physical Chemistry A, 2016, 120, 3654-3662.	2.5	26
14	Three-dimensional atomic-scale investigation of ZnO-MgxZn1â^'xO m-plane heterostructures. Applied Physics Letters, 2017, 111, .	3.3	24
15	Unraveling the Metastability of C_n²⁺ (n = 2â€“4) Clusters. Journal of Physical Chemistry Letters, 2019, 10, 581-588.	4.6	24
16	Progress in the understanding of Ni silicide formation for advanced <scp>MOS</scp> structures. Physica Status Solidi (A) Applications and Materials Science, 2014, 211, 152-165.	1.8	23
17	Atom Probe Sample Preparation. , 2016, , 97-121.		22
18	Composition Metrology of Ternary Semiconductor Alloys Analyzed by Atom Probe Tomography. Journal of Physical Chemistry C, 2018, 122, 16704-16714.	3.1	22

#	Article	IF	Citations
19	Field-Dependent Measurement of GaAs Composition by Atom Probe Tomography. Microscopy and Microanalysis, 2017, 23, 1067-1075.	0.4	20
20	Lattice and grain-boundary diffusion of As in Ni2Si. Journal of Applied Physics, 2008, 104, .	2.5	18
21	Electronic structure and stability of the SiO2+ dications produced in tomographic atom probe experiments. Journal of Chemical Physics, 2017, 147, 164301.	3.0	17
22	Wavelength and shape dependent strong-field photoemission from silver nanotips. New Journal of Physics, 2016, 18, 103010.	2.9	16
23	Arsenic clustering during formation of the transient Ni silicide. Scripta Materialia, 2012, 67, 169-172.	5.2	14
24	Carrier Localization in GaN/AlN Quantum Dots As Revealed by Three-Dimensional Multimicroscopy. Nano Letters, 2017, 17, 4261-4269.	9.1	14
25	Compositional accuracy in atom probe tomography analyses performed on III-N light emitting diodes. Journal of Applied Physics, 2019, 126, 124307.	2.5	14
26	Photoassisted and multiphoton emission from single-crystal diamond needles. Nanoscale, 2019, 11, 6852-6858.	5.6	14
27	Original Methods for Diffusion Measurements in Polycrystalline Thin Films. Defect and Diffusion Forum, 0, 322, 129-150.	0.4	12
28	Direct observation of Ni decorated dislocation loops within As+-implanted silicon and arsenic clustering in Ni silicide contact. Microelectronic Engineering, 2013, 107, 184-189.	2.4	11
29	Combined in situ x-ray scattering and electrical measurements for characterizing phase transformations in nanometric functional films. Thin Solid Films, 2013, 541, 21-27.	1.8	11
30	Multi-excitonic emission from Stranski-Krastanov GaN/AlN quantum dots inside a nanoscale tip. Applied Physics Letters, 2017, 111, .	3.3	11
31	Dissociation of GaN2+ and AlN2+ in APT: Analysis of experimental measurements. Journal of Chemical Physics, 2018, 149, 134311.	3.0	11
32	Three-Dimensional Atom-Probe Tomographic Analyses of Lead-Telluride Based Thermoelectric Materials. Jom, 2014, 66, 2288-2297.	1.9	10
33	Thermal diffusivity of diamond nanowires studied by laser assisted atom probe tomography. Applied Physics Letters, 2018, 112, .	3.3	10
34	B diffusion in implanted Ni2Si and NiSi layers. Applied Physics Letters, 2010, 96, 054102.	3.3	8
35	Role of the resistivity of insulating field emitters on the energy of field-ionised and field-evaporated atoms. Ultramicroscopy, 2015, 159, 139-146.	1.9	8
36	Super-resolution Optical Spectroscopy of Nanoscale Emitters within a Photonic Atom Probe. Nano Letters, 2020, 20, 8733-8738.	9.1	8

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37	Boron clustering in implanted NiSi. Scripta Materialia, 2011, 64, 828-831.	5.2	7
38	Optothermal response of a single silicon nanotip. Physical Review B, 2018, 97, .	3.2	7
39	Conduction mechanisms and voltage drop during field electron emission from diamond needles. Ultramicroscopy, 2019, 202, 51-56.	1.9	7
40	Diffusion and Redistribution of Boron in Nickel Silicides. Defect and Diffusion Forum, 0, 323-325, 415-420.	0.4	6
41	Detecting Dissociation Dynamics of Phosphorus Molecular Ions by Atom Probe Tomography. Journal of Physical Chemistry A, 2020, 124, 10977-10988.	2.5	6
42	In Situ Spectroscopic Study of the Optomechanical Properties of Evaporating Field Ion Emitters. Physical Review Applied, 2021, 15, .	3.8	6
43	Measurement of As diffusivity in Ni2Si thin films. Microelectronic Engineering, 2010, 87, 263-266.	2.4	5
44	Numerical Simulation Support for Diffusion Coefficient Measurements in Polycrystalline Thin Films. Defect and Diffusion Forum, 0, 309-310, 63-72.	0.4	5
45	Effect of laser illumination on the electrical conductivity of single-crystal diamond needles. Journal of Applied Physics, 2019, 126, 045710.	2.5	5
46	Dopant diffusivity and solubility in nickel silicides. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 670-673.	0.8	4
47	Optimizing Atom Probe Analysis with Synchronous Laser Pulsing and Voltage Pulsing. Microscopy and Microanalysis, 2017, 23, 221-226.	0.4	4
48	Surface Microscopy of Atomic and Molecular Hydrogen from Field-Evaporating Semiconductors. Journal of Physical Chemistry C, 2021, 125, 17078-17087.	3.1	4
49	Effect of electrical conduction on the electron emission properties of diamond needles. New Journal of Physics, 2020, 22, 083044.	2.9	4
50	Kinetics of growth and consumption of Ni rich phases. Microelectronic Engineering, 2014, 120, 146-149.	2.4	3
51	Field emission microscopy pattern of a single-crystal diamond needle under ultrafast laser illumination. New Journal of Physics, 2019, 21, 113060.	2.9	3
52	A Model for Formation and Consumption of Transient Phase. Solid State Phenomena, 0, 172-174, 646-651.	0.3	2
53	Redistribution of Alloy Elements during Nickel Silicide Formation: Benefit of Atom Probe Tomography. Defect and Diffusion Forum, 0, 309-310, 161-166.	0.4	1
54	Assessing the Composition of Wide Bandgap Compound Semiconductors by Atom Probe Tomography: A Metrological Problem. Microscopy and Microanalysis, 2016, 22, 650-651.	0.4	1

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55	Strain sensitivity and symmetry of 2.65â€‰eV color center in diamond nanoscale needles. Applied Physics Letters, 2019, 114, 143104.	3.3	1
56	Capacitive effect in ultrafast laser-induced emission from low conductance diamond nanotips. New Journal of Physics, 2020, 22, 083055.	2.9	1
57	Field emission and field ion microscopy from single crystal diamond needle. , 2017, , .		0
58	Effect of electrical conduction on the saturation of electron emission from diamond needles. , 2020, , .		0