

Joseph Kioseoglou

List of Publications by Year in descending order

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125
papers

1,608
citations

304743

22
h-index

395702

33
g-index

129
all docs

129
docs citations

129
times ranked

2062
citing authors

#	ARTICLE	IF	CITATIONS
1	An ab initio study of size-selected Pd nanocluster catalysts for the hydrogenation of 1-pentyne. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 3231-3237.	2.8	1
2	p-Type Iodine-Doping of Cu ₃ N and Its Conversion to ¹³⁷ I-CuI for the Fabrication of ¹³⁷ I-CuI/Cu ₃ N p-n Heterojunctions. <i>Electronic Materials</i> , 2022, 3, 15-26.	1.9	8
3	Ab initio, artificial neural network predictions and experimental synthesis of mischmetal alloying in Sm-Co permanent magnets. <i>Nanoscale</i> , 2022, 14, 5824-5839.	5.6	5
4	Modulating the growth of chemically deposited ZnO nanowires and the formation of nitrogen- and hydrogen-related defects using pH adjustment. <i>Nanoscale Advances</i> , 2022, 4, 1793-1807.	4.6	11
5	Cost effective modification of SmCo ₅ -type alloys. <i>AIP Advances</i> , 2022, 12, .	1.3	1
6	NanoMaterialsCAD: Flexible Software for the Design of Nanostructures. <i>Advanced Theory and Simulations</i> , 2021, 4, 2000232.	2.8	2
7	Impact of Oxygen on the Properties of Cu ₃ N and Cu ₃ N ^x O _x . <i>Journal of Physical Chemistry C</i> , 2021, 125, 3680-3688.	3.1	11
8	Ab Initio Study of the Electron-Phonon Coupling in Ultrathin Al Layers. <i>Journal of Low Temperature Physics</i> , 2021, 203, 180-193.	1.4	2
9	Machine Learning in Magnetic Materials. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000600.	1.5	18
10	Engineering nitrogen- and hydrogen-related defects in ZnO nanowires using thermal annealing. <i>Physical Review Materials</i> , 2021, 5, .	2.4	10
11	Machine-learning interatomic potential for W-Mo alloys. <i>Journal of Physics Condensed Matter</i> , 2021, 33, 315403.	1.8	11
12	Large out-of-plane piezoelectric response of wurtzite InN under biaxial strain. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2021, 29, 065013.	2.0	3
13	Structural and magnetic properties of SmCo ₅ XNiX intermetallic compounds. <i>Journal of Alloys and Compounds</i> , 2021, 882, 160699.	5.5	6
14	Data-driven simulation and characterisation of gold nanoparticle melting. <i>Nature Communications</i> , 2021, 12, 6056.	12.8	29
15	Bonding of Gold Nanoclusters on Graphene with and without Point Defects. <i>Nanomaterials</i> , 2020, 10, 2109.	4.1	4
16	Zinc Vacancy-Hydrogen Complexes as Major Defects in ZnO Nanowires Grown by Chemical Bath Deposition. <i>Journal of Physical Chemistry C</i> , 2020, 124, 16652-16662.	3.1	33
17	Decorated Dislocations against Phonon Propagation for Thermal Management. <i>ACS Applied Energy Materials</i> , 2020, 3, 2682-2694.	5.1	8
18	Observation of the Direct Energy Band Gaps of Defect-Tolerant Cu ₃ N by Ultrafast Pump-Probe Spectroscopy. <i>Journal of Physical Chemistry C</i> , 2020, 124, 3459-3469.	3.1	13

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19	Modeling the structural characterization of nanostructures. <i>Frontiers of Nanoscience</i> , 2020, 17, 207-227.	0.6	0
20	Core properties and the role of screw dislocations in the bulk n-type conductivity in InN. <i>Physical Chemistry Chemical Physics</i> , 2019, 21, 15767-15778.	2.8	2
21	Single Nanoparticle Activities in Ensemble: A Study on Pd Cluster Nanoportals for Electrochemical Oxygen Evolution Reaction. <i>Journal of Physical Chemistry C</i> , 2019, 123, 26124-26135.	3.1	13
22	Structural, Electronic and Vibrational Properties of Al ₄ C ₃ . <i>Physica Status Solidi (B): Basic Research</i> , 2019, 256, 1900037.	1.5	5
23	<i>In Situ</i> Observation of Metal to Metal Oxide Progression: A Study of Charge Transfer Phenomenon at Ru-CuO Interfaces. <i>ACS Nano</i> , 2019, 13, 12425-12437.	14.6	22
24	Atomic-resolution imaging of surface and core melting in individual size-selected Au nanoclusters on carbon. <i>Nature Communications</i> , 2019, 10, 2583.	12.8	48
25	Epitaxially Oriented Sn:In ₂ O ₃ Nanowires Grown by the Vapor-Liquid-Solid Mechanism on m-, r-, a-Al ₂ O ₃ as Scaffolds for Nanostructured Solar Cells. <i>ACS Applied Energy Materials</i> , 2019, 2, 4274-4283.	5.1	7
26	Computational Modeling of Nanoparticle Coalescence. <i>Advanced Theory and Simulations</i> , 2019, 2, 1900013.	2.8	59
27	Nanoassemblies of ultrasmall clusters with remarkable activity in carbon dioxide conversion into C1 fuels. <i>Nanoscale</i> , 2019, 11, 4683-4687.	5.6	8
28	Emergence of valley selectivity in monolayer tin (Sn) sulphide. <i>Nanoscale Advances</i> , 2019, 1, 4863-4869.	4.6	2
29	Hydrogen Storage: Hydrogen Flux through Size Selected Pd Nanoparticles into Underlying Mg Nanofilms (<i>Adv. Energy Mater.</i> 4/2018). <i>Advanced Energy Materials</i> , 2018, 8, 1870016.	19.5	1
30	Impact of screw and edge dislocations on the thermal conductivity of individual nanowires and bulk GaN: a molecular dynamics study. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 5159-5172.	2.8	26
31	Hydrogen Flux through Size Selected Pd Nanoparticles into Underlying Mg Nanofilms. <i>Advanced Energy Materials</i> , 2018, 8, 1701326.	19.5	26
32	Strain Fields in Low-Dimensional III-V Semiconductors: A Combined Finite Elements and HRTEM Approach. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700409.	1.8	1
33	Enhanced thermal conductivity in percolating nanocomposites: a molecular dynamics investigation. <i>Nanoscale</i> , 2018, 10, 21732-21741.	5.6	11
34	<i>Ab initio</i> quantum transport in AB-stacked bilayer penta-silicene using atomic orbitals. <i>RSC Advances</i> , 2018, 8, 34041-34046.	3.6	3
35	Hole-Doped 2D InSe for Spintronic Applications. <i>ACS Applied Nano Materials</i> , 2018, 1, 6656-6665.	5.0	41
36	Structural and electronic properties of a-edge dislocations along 1-100 in GaN. <i>Journal of Applied Physics</i> , 2018, 123, .	2.5	6

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37	First-principles calculations of threading screw dislocations in AlN and InN. <i>Physical Review Materials</i> , 2018, 2, .	2.4	6
38	Mechanism and crucial parameters on GaN nanocluster formation in a silica matrix. <i>Journal of Applied Physics</i> , 2017, 121, 054301.	2.5	7
39	Strain and elastic constants of GaN and InN. <i>Computational Condensed Matter</i> , 2017, 10, 25-30.	2.1	6
40	Intrinsic point defects in buckled and puckered arsenene: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 9862-9871.	2.8	38
41	Strain field determination in III-V heteroepitaxy coupling finite elements with experimental and theoretical techniques at the nanoscale. <i>Journal of the Mechanical Behavior of Materials</i> , 2017, 26, 1-8.	1.8	0
42	Thermal Oxidation of Size-Selected Pd Nanoparticles Supported on CuO Nanowires: The Role of the CuO-Pd Interface. <i>Chemistry of Materials</i> , 2017, 29, 6153-6160.	6.7	25
43	Ab initio investigation of the AlN:Er system. <i>Computational Materials Science</i> , 2017, 138, 128-134.	3.0	4
44	Tuning the onset of ferromagnetism in heterogeneous bimetallic nanoparticles by gas phase doping. <i>Physical Review Materials</i> , 2017, 1, .	2.4	29
45	Structural Properties and Defects of III-Nitride Semiconductors at the Nanoscale. , 2017, , 237-277.		0
46	Structure, strain, and composition profiling of InAs/GaAs(211)B quantum dot superlattices. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	7
47	The influence of structural characteristics on the electronic and thermal properties of GaN/AlN core/shell nanowires. <i>Journal of Applied Physics</i> , 2016, 119, .	2.5	8
48	Kinetic trapping through coalescence and the formation of patterned Ag-Cu nanoparticles. <i>Nanoscale</i> , 2016, 8, 9780-9790.	5.6	75
49	Interfacial properties of self-assembled GaN nanowires on pre-processed Al ₂ O ₃ (0001) surfaces. <i>Materials Science in Semiconductor Processing</i> , 2016, 55, 46-50.	4.0	3
50	Enhanced Stark Tuning of Single InAs(211)B Quantum Dots due to Nonlinear Piezoelectric Effect in Zincblende Nanostructures. <i>Physical Review Applied</i> , 2016, 6, .	3.8	9
51	Ordered structures in III-Nitride ternary alloys. <i>Computational Materials Science</i> , 2016, 118, 22-31.	3.0	9
52	Ab-initio electronic structure calculations and properties of [SixSn _{1-x}] ₃ N ₄ ternary nitrides. <i>Thin Solid Films</i> , 2016, 613, 43-47.	1.8	4
53	The Metalorganic Vapour Phase Epitaxy Growth of AlIBV Heterostructures Observed by Reflection Anisotropy Spectroscopy. <i>Acta Physica Polonica A</i> , 2016, 129, A-75-A-78.	0.5	1
54	Structural and electronic properties of GaN nanowires with embedded In _x Ga _{1-x} N nanodisks. <i>Journal of Applied Physics</i> , 2015, 118, 034301.	2.5	11

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55	Nanostructure and strain properties of core-shell GaAs/AlGaAs nanowires. Semiconductor Science and Technology, 2015, 30, 114012.	2.0	6
56	MOVPE prepared InAs/GaAs quantum dots covered by GaAsSb layer with long wavelength emission at 1.8 μ m. Journal of Crystal Growth, 2015, 414, 167-171.	1.5	9
57	Energetic, structural and electronic properties of metal vacancies in strained AlN/GaN interfaces. Journal of Physics Condensed Matter, 2015, 27, 125006.	1.8	5
58	Different polarities of InN (0001) heterostructures on Si (111) substrates. , 2014, , .		0
59	Endotaxially stabilized B2-FeSi nanodots in Si (100) via ion beam co-sputtering. Applied Physics Letters, 2014, 104, .	3.3	8
60	Self-annihilation of inversion domains by high energy defects in III-Nitrides. Applied Physics Letters, 2014, 104, .	3.3	6
61	Effect of the lower and upper interfaces on the quality of InAs/GaAs quantum dots. Applied Surface Science, 2014, 301, 173-177.	6.1	10
62	Structural and electronic properties of elastically strained InN/GaN quantum well multilayer heterostructures. Physica Status Solidi C: Current Topics in Solid State Physics, 2014, 11, 289-292.	0.8	5
63	Thermal oxidation and facet formation mechanisms of Si nanowires. Physica Status Solidi - Rapid Research Letters, 2014, 8, 307-311.	2.4	1
64	Selective Area Growth of Well-Ordered ZnO Nanowire Arrays with Controllable Polarity. ACS Nano, 2014, 8, 4761-4770.	14.6	78
65	Broad compositional tunability of indium tin oxide nanowires grown by the vapor-liquid-solid mechanism. APL Materials, 2014, 2, .	5.1	18
66	Nanostructure and strain in InGaN/GaN superlattices grown in GaN nanowires. Nanotechnology, 2013, 24, 435702.	2.6	58
67	Ultrafast pulsed laser deposition of carbon nanostructures: Structural and optical characterization. Applied Surface Science, 2013, 278, 101-105.	6.1	13
68	Structural properties of SnO ₂ nanowires and the effect of donor like defects on its charge distribution. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 226-229.	1.8	9
69	Atomic scale modeling of edge dislocation type dislocations in InN. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 204-208.	1.8	8
70	Structural and electronic properties of InGaN/GaN nanowires by the use of EELS. Physica Status Solidi C: Current Topics in Solid State Physics, 2013, 10, 105-108.	0.8	1
71	Si nanostructures grown by picosecond high repetition rate pulsed laser deposition. Applied Surface Science, 2013, 278, 67-70.	6.1	5
72	Electron energy loss near edge structure of In _x Al _{1-x} N alloys. Microelectronic Engineering, 2013, 112, 198-203.	2.4	3

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73	Atomic scale morphology, growth behaviour and electronic properties of semipolar $\{10\bar{1}1\}$ GaN surfaces. Journal of Physics Condensed Matter, 2013, 25, 045008.	1.8	3
74	Nanostructural and electronic properties of polytypes in InN nanocolumns. Journal of Applied Physics, 2013, 114, 074312.	2.5	3
75	Combined vertically correlated InAs and GaAsSb quantum dots separated by triangular GaAsSb barrier. Journal of Applied Physics, 2013, 114, 174305.	2.5	8
76	Reconstructions and electronic structure of $(112\bar{2})$ and $(112\bar{2}\bar{2})$ semipolar AlN surfaces. Journal of Applied Physics, 2012, 112, 033510.	2.5	7
77	Interfaces between nonpolar and semipolar III-nitride semiconductor orientations: Structure and defects. Journal of Applied Physics, 2012, 111, 033507.	2.5	4
78	Effect of doping on screw threading dislocations in AlN and their role as conductive nanowires. Physica Status Solidi C: Current Topics in Solid State Physics, 2012, 9, 484-487.	0.8	3
79	Atomistic modeling and HRTEM analysis of misfit dislocations in InN/GaN heterostructures. Applied Surface Science, 2012, 260, 23-28.	6.1	5
80	Indium adsorption and incorporation mechanisms in AlN. Journal of Materials Science, 2011, 46, 4377-4383.	3.7	4
81	Effect of edge threading dislocations on the electronic structure of InN. Applied Physics Letters, 2011, 98, .	3.3	23
82	Screw threading dislocations in AlN: Structural and electronic properties of In and O doped material. Journal of Applied Physics, 2011, 110, 053715.	2.5	13
83	Electronic structure of $1/6\bar{2}0\bar{2}\bar{3}$ partial dislocations in wurtzite GaN. Journal of Applied Physics, 2011, 109, .	2.5	16
84	Microstructure of N-face InN grown on Si (111) by plasma-assisted MBE using a thin GaN-AlN buffer layer. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1074-1078.	1.8	7
85	Nonlinear Finite Element and Atomistic Modelling of Dislocations in Heterostructures. Advanced Structured Materials, 2010, , 239-253.	0.5	0
86	Morphology and strain of self-assembled semipolar GaN quantum dots in $(112\bar{2})$ AlN. Journal of Applied Physics, 2010, 108, .	2.5	20
87	Mechanism of compositional modulations in epitaxial InAlN films grown by molecular beam epitaxy. Applied Physics Letters, 2009, 95, .	3.3	48
88	Indium migration paths in V-defects of InAlN grown by metal-organic vapor phase epitaxy. Applied Physics Letters, 2009, 95, 071905.	3.3	64
89	Strain accommodation and interfacial structure of AlN interlayers in GaN. Crystal Research and Technology, 2009, 44, 1170-1180.	1.3	6
90	Nonsingular dislocation and crack fields: implications to small volumes. Microsystem Technologies, 2009, 15, 117-121.	2.0	11

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91	Magnesium adsorption and incorporation in InN (0001) and surfaces: A first-principles study. Applied Surface Science, 2009, 255, 8475-8482.	6.1	3
92	Core models of edge threading dislocations in wurtzite III(Al,Ga,In) nitrides. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1931-1935.	1.8	12
93	Polar AlN/GaN interfaces: Structures and energetics. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 1892-1897.	1.8	20
94	Energetics of oxygen adsorption and incorporation at InN polar surface: A first-principles study. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, S364-S367.	0.8	3
95	Crystallization of amorphous silicon thin films: comparison between experimental and computer simulation results. Journal of Materials Science, 2008, 43, 3976-3981.	3.7	0
96	Study of InN/GaN interfaces using molecular dynamics. Journal of Materials Science, 2008, 43, 3982-3988.	3.7	15
97	Electron microscopy investigation of extended defects in a-plane gallium nitride layers grown on r-plane sapphire by molecular beam epitaxy. Physica Status Solidi C: Current Topics in Solid State Physics, 2008, 5, 3748-3751.	0.8	6
98	Defect characterization and analysis of III-V nanowires grown by Ni-promoted MBE. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2589-2592.	1.8	7
99	Strain relaxation in AlN/GaN heterostructures grown by molecular beam epitaxy. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 2569-2572.	1.8	10
100	Interatomic potential calculations of III(Al, In)-N planar defects with a III species environment approach. Physica Status Solidi (B): Basic Research, 2008, 245, 1118-1124.	1.5	22
101	Electron Microscopy Characterization of a Graded AlN/GaN Multilayer Grown by Plasma-Assisted MBE. Springer Proceedings in Physics, 2008, , 66-68.	0.2	0
102	Dislocation core investigation by geometric phase analysis and the dislocation density tensor. Journal Physics D: Applied Physics, 2008, 41, 035408.	2.8	44
103	Microstructure of defects in InGaN/GaN quantum well heterostructures. Journal of Physics: Conference Series, 2008, 126, 012048.	0.4	2
104	Misfit analysis of the InN/GaN interface through HRTEM image simulations. , 2008, , 651-652.		0
105	3D modelling of misfit networks in the interface region of heterostructures. Journal Physics D: Applied Physics, 2007, 40, 4084-4091.	2.8	11
106	Strain distribution of thin InN epilayers grown on (0001) GaN templates by molecular beam epitaxy. Applied Physics Letters, 2007, 90, 061920.	3.3	12
107	Misfit reduction by a spinel layer formed during the epitaxial growth of ZnO on sapphire using a MgO buffer layer. Journal of Crystal Growth, 2007, 308, 314-320.	1.5	18
108	Structural properties of quaternary InAlGaIn MQW grown by plasma-assisted MBE. Physica Status Solidi (A) Applications and Materials Science, 2006, 203, 2151-2155.	1.8	0

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109	Analysis of partial dislocations in wurtzite GaN using gradient elasticity. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 2161-2166.	1.8	25
110	Mixed partial dislocation core structure in GaN by high resolution electron microscopy. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 2156-2160.	1.8	9
111	Energetics of the 30° Shockley partial dislocation in wurtzite GaN. <i>Superlattices and Microstructures</i> , 2006, 40, 458-463.	3.1	11
112	Atomic simulations and HRTEM observations of a 18° tilt grain boundary in GaN. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005, 202, 799-803.	1.8	2
113	Partial dislocations in wurtzite GaN. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2005, 202, 2888-2899.	1.8	23
114	Twin formation in sputter-grown ZnO/Al ₂ O ₃ (0001) epitaxial film: A real time x-ray scattering study. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2004, 22, 2159-2162.	2.1	4
115	Atomic structures and energies of partial dislocations in wurtzite GaN. <i>Physical Review B</i> , 2004, 70, .	3.2	29
116	Junction lines of inversion domain boundaries with stacking faults in GaN. <i>Physical Review B</i> , 2004, 70, .	3.2	11
117	Microstructural assessment of InN-on-GaN films grown by plasma-assisted MBE. <i>Superlattices and Microstructures</i> , 2004, 36, 509-515.	3.1	11
118	Microstructure of planar defects and their interactions in wurtzite GaN films. <i>Solid-State Electronics</i> , 2003, 47, 553-557.	1.4	12
119	Atomic structure and energy of junctions between inversion domain boundaries and stacking faults in wurtzite GaN. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2003, 0, 2464-2469.	0.8	1
120	A modified empirical potential for energetic calculations of planar defects in GaN. <i>Computational Materials Science</i> , 2003, 27, 43-49.	3.0	42
121	Interfacial and defect structures in multilayered GaN/AlN films. <i>Journal of Physics Condensed Matter</i> , 2002, 14, 13277-13283.	1.8	9
122	Atomic-scale models of interactions between inversion domain boundaries and intrinsic basal stacking faults in GaN. <i>Diamond and Related Materials</i> , 2002, 11, 905-909.	3.9	8
123	Structural transition of inversion domain boundaries through interactions with stacking faults in epitaxial GaN. <i>Physical Review B</i> , 2001, 64, .	3.2	26
124	Interaction Between Basal Stacking Faults and Prismatic Inversion Domain Boundaries in GaN. <i>Materials Research Society Symposia Proceedings</i> , 2000, 639, 3441.	0.1	1
125	Microstructure of GaN Films Grown by RF-Plasma Assisted Molecular Beam Epitaxy. <i>Materials Research Society Symposia Proceedings</i> , 2000, 639, 3471.	0.1	9