

# Ioannis Deretzis

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1077789/publications.pdf>

Version: 2024-02-01

119  
papers

2,579  
citations

201385

27  
h-index

223531

46  
g-index

120  
all docs

120  
docs citations

120  
times ranked

4121  
citing authors

#	ARTICLE	IF	CITATIONS
1	An Experimental Evaluation of Resistive Defects and Different Testing Solutions in Low-Power Back-Biased SRAM Cells. <i>Electronics (Switzerland)</i> , 2022, 11, 203.	1.8	1
2	Multiscale modeling of ultrafast melting phenomena. <i>Npj Computational Materials</i> , 2022, 8, .	3.5	10
3	Blackâ€™Yellow Bandgap Tradeâ€™Off During Thermal Stability Tests in Lowâ€™Temperature Euâ€™Doped CsPbI <sub>3</sub> . <i>Solar Rrl</i> , 2022, 6, .	3.1	8
4	Outâ€™ofâ€™Glovebox Integration of Recyclable Europiumâ€™Doped CsPbI <sub>3</sub> in Tripleâ€™Mesoscopic Carbonâ€™Based Solar Cells Exceeding 9% Efficiency. <i>Solar Rrl</i> , 2022, 6, .	3.1	9
5	Two-step MAPbI <sub>3</sub> deposition by low-vacuum proximity-space-effusion for high-efficiency inverted semitransparent perovskite solar cells. <i>Journal of Materials Chemistry A</i> , 2021, 9, 16456-16469.	5.2	25
6	Continuum modeling and TCAD simulations of laser-related phenomena in CMOS applications. , 2021, , 251-291.		0
7	CsPbBr <sub>3</sub> , MAPbBr <sub>3</sub> , and FAPbBr <sub>3</sub> Bromide Perovskite Single Crystals: Interband Critical Points under Dry N <sub>2</sub> and Optical Degradation under Humid Air. <i>Journal of Physical Chemistry C</i> , 2021, 125, 4938-4945.	1.5	26
8	Optical behaviour of Î³-black CsPbI <sub>3</sub> phases formed by quenching from 80 Â°C and 325 Â°C. <i>JPhys Materials</i> , 2021, 4, 034011.	1.8	6
9	Formation of CsPbI <sub>3</sub> Î³â€™Phase at 80â€™%Â°C by Europiumâ€™Assisted Snowplow Effect. <i>Advanced Energy and Sustainability Research</i> , 2021, 2, 2100091.	2.8	8
10	Exploring the Structural Competition between the Black and the Yellow Phase of CsPbI <sub>3</sub> . <i>Nanomaterials</i> , 2021, 11, 1282.	1.9	12
11	Simulations of the Ultra-Fast Kinetics in Ni-Si-C Ternary Systems under Laser Irradiation. <i>Materials</i> , 2021, 14, 4769.	1.3	6
12	MAPbI <sub>3</sub> Deposition by LV-PSE on TiO <sub>2</sub> for Photovoltaic Application. <i>Frontiers in Electronics</i> , 2021, 2, .	2.0	1
13	New Approaches and Understandings in the Growth of Cubic Silicon Carbide. <i>Materials</i> , 2021, 14, 5348.	1.3	34
14	Molecular dynamics simulations supporting the development of a continuum model of heat transport in nanowires. , 2021, , .		1
15	Extensive Fermiâ€™Level Engineering for Graphene through the Interaction with Aluminum Nitrides and Oxides. <i>Physica Status Solidi - Rapid Research Letters</i> , 2020, 14, 1900399.	1.2	5
16	Wet Environment Effects for Ethanol and Water Adsorption on Anatase TiO <sub>2</sub> (101) Surfaces. <i>Journal of Physical Chemistry C</i> , 2020, 124, 2406-2419.	1.5	24
17	TiO <sub>2</sub> Colloids Laser-Treated in Ethanol for Photocatalytic H <sub>2</sub> Production. <i>ACS Applied Nano Materials</i> , 2020, 3, 9127-9140.	2.4	14
18	Improved Electrical and Structural Stability in HTL-Free Perovskite Solar Cells by Vacuum Curing Treatment. <i>Energies</i> , 2020, 13, 3953.	1.6	7

#	ARTICLE	IF	CITATIONS
19	Temperature-Dependent Optical Band Gap in CsPbBr <sub>3</sub> , MAPbBr <sub>3</sub> , and FAPbBr <sub>3</sub> Single Crystals. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 2490-2496.	2.1	173
20	Impact of Stacking Faults and Domain Boundaries on the Electronic Transport in Cubic Silicon Carbide Probed by Conductive Atomic Force Microscopy. <i>Advanced Electronic Materials</i> , 2020, 6, 1901171.	2.6	25
21	Local Order and Rotational Dynamics in Mixed A-Cation Lead Iodide Perovskites. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 1068-1074.	2.1	31
22	Genesis and evolution of extended defects: The role of evolving interface instabilities in cubic SiC. <i>Applied Physics Reviews</i> , 2020, 7, 021402.	5.5	35
23	Full Efficiency Recovery in Hole-Transporting Layer-Free Perovskite Solar Cells With Free-Standing Dry-Carbon Top-Contacts. <i>Frontiers in Chemistry</i> , 2020, 8, 200.	1.8	8
24	Phononic transport and simulations of annealing processes in nanometric complex structures. <i>Physical Review Materials</i> , 2020, 4, .	0.9	5
25	10.1063/1.5132300.1. , 2020, , .		0
26	Molecular Dynamics Modeling of the Radial Heat Transfer from Silicon Nanowires. , 2020, , .		1
27	Advanced simulations on laser annealing: explosive crystallization and phonon transport corrections. , 2020, , .		2
28	High-Performance Graphene/AlGaIn/GaN Schottky Junctions for Hot Electron Transistors. <i>ACS Applied Electronic Materials</i> , 2019, 1, 2342-2354.	2.0	35
29	Coupled molecular-dynamics and finite-element-method simulations for the kinetics of particles subjected to field-mediated forces. <i>Physical Review E</i> , 2019, 99, 063307.	0.8	2
30	Pb clustering and PbI <sub>2</sub> nanofragmentation during methylammonium lead iodide perovskite degradation. <i>Nature Communications</i> , 2019, 10, 2196.	5.8	116
31	Seed-Free Atomic Layer Deposition of Highly Uniform Al <sub>2</sub> O <sub>3</sub> Thin Films onto Monolayer Epitaxial Graphene on Silicon Carbide. <i>Advanced Materials Interfaces</i> , 2019, 6, 1900097.	1.9	24
32	Nitrogen Soaking Promotes Lattice Recovery in Polycrystalline Hybrid Perovskites. <i>Advanced Energy Materials</i> , 2019, 9, 1803450.	10.2	46
33	Tailoring Active Defect Centers During the Growth of Group IV Crystals. <i>Proceedings (mdpi)</i> , 2019, 12, 32.	0.2	0
34	Simulation of the Growth Kinetics in Group IV Compound Semiconductors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2019, 216, 1800597.	0.8	6
35	Theoretical study of the laser annealing process in FinFET structures. <i>Applied Surface Science</i> , 2019, 467-468, 666-672.	3.1	31
36	Phase field model of the nanoscale evolution during the explosive crystallization phenomenon. <i>Journal of Applied Physics</i> , 2018, 123, .	1.1	28

#	ARTICLE	IF	CITATIONS
37	Fabrication and Characterization of Graphene Heterostructures with Nitride Semiconductors for High Frequency Vertical Transistors. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2018, 215, 1700653.	0.8	14
38	Anisotropic ultraviolet-plasmon dispersion in black phosphorus. <i>Nanoscale</i> , 2018, 10, 21918-21927.	2.8	18
39	Stability and Degradation in Hybrid Perovskites: Is the Glass Half-Empty or Half-Full?. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3000-3007.	2.1	102
40	Nanoscale electrical mapping of two-dimensional materials by conductive atomic force microscopy for transistors applications. <i>AIP Conference Proceedings</i> , 2018, , .	0.3	4
41	Electron trapping at SiO <sub>2</sub> /4H-SiC interface probed by transient capacitance measurements and atomic resolution chemical analysis. <i>Nanotechnology</i> , 2018, 29, 395702.	1.3	22
42	Oxygen Functionalities Evolution in Thermally Treated Graphene Oxide Featured by EELS and DFT Calculations. <i>Journal of Physical Chemistry C</i> , 2017, 121, 5408-5414.	1.5	40
43	A Comparison Between Quantum Transport and Band Structure Unfolding in Defected Graphene Nanoribbons. , 2017, , 185-194.		0
44	Nonequilibrium Steady States and Electron Transport in Molecular Systems. , 2017, , 127-150.		0
45	Exploring the orthorhombic-tetragonal phase transition in CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> : the role of atom kinetics. <i>Nanoscale</i> , 2017, 9, 5896-5903.	2.8	22
46	Revealing a Discontinuity in the Degradation Behavior of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> during Thermal Operation. <i>Journal of Physical Chemistry C</i> , 2017, 121, 13577-13585.	1.5	37
47	Ambipolar MoS <sub>2</sub> Transistors by Nanoscale Tailoring of Schottky Barrier Using Oxygen Plasma Functionalization. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 23164-23174.	4.0	81
48	First Evidence of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> Optical Constants Improvement in a N <sub>2</sub> Environment in the Range 40-80 °C. <i>Journal of Physical Chemistry C</i> , 2017, 121, 7703-7710.	1.5	49
49	Atom by Atom Simulations of Nanomaterial Manipulation: The Plasma Etching Case. <i>IEEE Nanotechnology Magazine</i> , 2017, 16, 790-797.	1.1	2
50	Role of H Distribution on Coherent Quantum Transport of Electrons in Hydrogenated Graphene. <i>Condensed Matter</i> , 2017, 2, 37.	0.8	4
51	Ab Initio Calculations and Kinetic Process Simulations of Nitrogen-Doped Graphene. <i>Carbon Nanostructures</i> , 2017, , 61-69.	0.1	0
52	Atom by atom simulations of nano-materials processing. , 2016, , .		0
53	Absorption edges of black phosphorus: A comparative analysis. <i>Physica Status Solidi (B): Basic Research</i> , 2016, 253, 2509-2514.	0.7	24
54	The Interaction between Graphene and the SiC Substrate: Ab Initio Calculations for Polar and Nonpolar Surfaces. <i>Materials Science Forum</i> , 2016, 858, 1125-1128.	0.3	0

#	ARTICLE	IF	CITATIONS
55	Spontaneous bidirectional ordering of CH <sub>3</sub> NH <sub>3</sub> <sup>+</sup> in lead iodide perovskites at room temperature: The origins of the tetragonal phase. <i>Scientific Reports</i> , 2016, 6, 24443.	1.6	37
56	Stability of solution-processed MAPbI <sub>3</sub> and FAPbI <sub>3</sub> layers. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 13413-13422.	1.3	208
57	From PbI <sub>2</sub> to MAPbI <sub>3</sub> through Layered Intermediates. <i>Journal of Physical Chemistry C</i> , 2016, 120, 19768-19777.	1.5	26
58	Simulating structural transitions with kinetic Monte Carlo: The case of epitaxial graphene on SiC. <i>Physical Review E</i> , 2016, 93, 033304.	0.8	10
59	Kinetic Monte Carlo simulations of vacancy evolution in graphene. <i>Materials Science in Semiconductor Processing</i> , 2016, 42, 179-182.	1.9	7
60	Electron Quantum Transport in Disordered Graphene. <i>Mathematics in Industry</i> , 2016, , 3-12.	0.1	0
61	STEM and EELS Investigation on Black Phosphorus at Atomic Resolution. <i>Microscopy and Microanalysis</i> , 2015, 21, 427-428.	0.2	4
62	Interface disorder probed at the atomic scale for graphene grown on the C face of SiC. <i>Physical Review B</i> , 2015, 91, .	1.1	20
63	Similar Structural Dynamics for the Degradation of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> in Air and in Vacuum. <i>ChemPhysChem</i> , 2015, 16, 3064-3071.	1.0	80
64	Atomistic origins of CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> degradation to PbI <sub>2</sub> in vacuum. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	158
65	Texture of MAPbI <sub>3</sub> Layers Assisted by Chloride on Flat TiO <sub>2</sub> Substrates. <i>Journal of Physical Chemistry C</i> , 2015, 119, 19808-19816.	1.5	36
66	Electron energy-loss spectra of graphene oxide for the determination of oxygen functionalities. <i>Carbon</i> , 2015, 93, 1034-1041.	5.4	36
67	Micro-Raman characterization of graphene grown on SiC(000-1)., 2014, , .		0
68	Atomic Scale Imaging and Energy Loss Spectroscopy of Epitaxial Graphene. <i>Materials Research Society Symposia Proceedings</i> , 2014, 1714, 1.	0.1	0
69	Structural and electronic inhomogeneity for graphene grown on the C-face of SiC: Insights from ab initio calculations. <i>Applied Surface Science</i> , 2014, 291, 69-73.	3.1	6
70	Electronic properties of epitaxial graphene residing on SiC facets probed by conductive atomic force microscopy. <i>Applied Surface Science</i> , 2014, 291, 53-57.	3.1	12
71	Origin and impact of sublattice symmetry breaking in nitrogen-doped graphene. <i>Physical Review B</i> , 2014, 89, .	1.1	15
72	Role of basis sets on the unfolding of supercell band structures: From tight-binding to density functional theory. <i>Europhysics Letters</i> , 2014, 107, 27006.	0.7	17

#	ARTICLE	IF	CITATIONS
73	High resolution study of structural and electronic properties of epitaxial graphene grown on off-axis 4H-SiC (0001). <i>Journal of Crystal Growth</i> , 2014, 393, 150-155.	0.7	11
74	Observation of layer by layer graphitization of 4H-SiC, through atomic-EELS at low energy. <i>Microscopy and Microanalysis</i> , 2014, 20, 560-561.	0.2	0
75	Direct growth of quasi-free-standing epitaxial graphene on nonpolar SiC surfaces. <i>Physical Review B</i> , 2013, 88, .	1.1	43
76	Interaction between hydrogen flux and carbon monolayer on SiC(0001): graphene formation kinetics. <i>Nanoscale</i> , 2013, 5, 671-680.	2.8	18
77	Delaminated Graphene at Silicon Carbide Facets: Atomic Scale Imaging and Spectroscopy. <i>ACS Nano</i> , 2013, 7, 3045-3052.	7.3	73
78	Impact of Substrate Steps and of Monolayer-Bilayer Junctions on the Electronic Transport in Epitaxial Graphene on 4H-SiC (0001). <i>Materials Science Forum</i> , 2013, 740-742, 113-116.	0.3	2
79	A density functional theory study of epitaxial graphene on the (3 $\bar{A}$ -3)-reconstructed C-face of SiC. <i>Applied Physics Letters</i> , 2013, 102, 093101.	1.5	13
80	Process simulation of hydrogen intercalation in epitaxial graphene on SiC(0001). <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 1478-1482.	0.7	4
81	Atomic-Scale Analysis of Chemical Bonding of Delaminated Graphene at Faceted SiC by Aberration-Corrected Scanning Transmission Electron Microscopy. <i>Microscopy and Microanalysis</i> , 2013, 19, 1238-1239.	0.2	0
82	Coupled Monte Carlo-Poisson method for the simulation of particle-particle effects in dielectrophoretic devices. <i>Applied Physics Letters</i> , 2012, 100, .	1.5	22
83	Electron backscattering from stacking faults in SiC by means of ab initio quantum transport calculations. <i>Physical Review B</i> , 2012, 85, .	1.1	31
84	Electronic transport at monolayer-bilayer junctions in epitaxial graphene on SiC. <i>Physical Review B</i> , 2012, 86, .	1.1	85
85	On the determination of diameter distribution in multi-wall carbon nanotubes by Raman spectroscopy: issues related to excitation laser energy. <i>Journal of Raman Spectroscopy</i> , 2012, 43, 1018-1023.	1.2	3
86	Electronic transport signatures of common defects in irradiated graphene-based systems. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2012, 282, 108-111.	0.6	3
87	Quantum transport modeling of defected graphene nanoribbons. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2012, 44, 981-984.	1.3	9
88	Interface Electronic Differences Between Epitaxial Graphene Systems Grown on the Si and the C Face of SiC. <i>Carbon Nanostructures</i> , 2012, , 51-56.	0.1	0
89	Coherent electron transport in quasi one-dimensional carbon-based systems. <i>European Physical Journal B</i> , 2011, 81, 15-36.	0.6	13
90	Ion beam induced defects in graphene: Raman spectroscopy and DFT calculations. <i>Journal of Molecular Structure</i> , 2011, 993, 506-509.	1.8	25

#	ARTICLE	IF	CITATIONS
91	Theoretical study of the role of metallic contacts in probing transport features of pure and defected graphene nanoribbons. <i>Nanoscale Research Letters</i> , 2011, 6, 234.	3.1	8
92	Role of covalent and metallic intercalation on the electronic properties of epitaxial graphene on SiC(0001). <i>Physical Review B</i> , 2011, 84, .	1.1	47
93	Single-layer metallicity and interface magnetism of epitaxial graphene on SiC(0001 $\hat{A}$ ). <i>Applied Physics Letters</i> , 2011, 98, 023113.	1.5	8
94	<i>Ab Initio</i> Study of Ge Intercalation in Epitaxial Graphene on SiC(0001). <i>Applied Physics Express</i> , 2011, 4, 125101.	1.1	10
95	<i>Ab Initio</i> Prediction of Boron Compounds Arising from Borozene: Structural and Electronic Properties. <i>Nanoscale Research Letters</i> , 2010, 5, 158-163.	3.1	14
96	Lack of universal conductance features in disordered graphene nanoribbons. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2010, 7, NA-NA.	0.8	1
97	A multiscale study of electronic structure and quantum transport in C <sub>60</sub> H <sub>6</sub> -based graphene quantum dots. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 095504.	0.7	13
98	Atomistic quantum transport modeling of metal-graphene nanoribbon heterojunctions. <i>Physical Review B</i> , 2010, 82, .	1.1	9
99	Effects due to backscattering and pseudogap features in graphene nanoribbons with single vacancies. <i>Physical Review B</i> , 2010, 81, .	1.1	54
100	Insulator-metal transition in biased finite polyynes systems. <i>European Physical Journal B</i> , 2009, 70, 311-316.	0.6	13
101	Electronic structure of epitaxial graphene nanoribbons on SiC(0001). <i>Applied Physics Letters</i> , 2009, 95, 063111.	1.5	17
102	Conductance distribution in doped and defected graphene nanoribbons. <i>Physical Review B</i> , 2009, 80, .	1.1	37
103	Electronic transport in carbon nanotube based nano-devices. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 2333-2338.	1.3	17
104	A polaron model of the electronic transport in a nanotube quantum dot. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2008, 40, 2289-2293.	1.3	4
105	Nonequilibrium aspects of armchair graphene nanoribbon conduction. <i>Materials Science in Semiconductor Processing</i> , 2008, 11, 190-194.	1.9	1
106	Bias-driven local density of states alterations and transport in ballistic molecular devices. <i>Journal of Chemical Physics</i> , 2008, 128, 164706.	1.2	14
107	Violation of the single-parameter scaling hypothesis in disordered graphene nanoribbons. <i>Physical Review B</i> , 2008, 78, .	1.1	12
108	Phonon Driven Nonlinear Electrical Behavior in Molecular Devices. <i>Physical Review Letters</i> , 2007, 99, 136404.	2.9	30

#	ARTICLE	IF	CITATIONS
109	Nonequilibrium electron charging in carbon-nanotube-based molecular bridges. Applied Physics Letters, 2007, 91, 163111.	1.5	6
110	Electron transport properties of calix[4]arene based systems in a metal–molecule–metal junction. New Journal of Chemistry, 2007, 31, 756-761.	1.4	3
111	Effects of interface bonding on the conductance of metal–carbon nanotube–metal systems. Materials Science and Engineering C, 2007, 27, 1102-1107.	3.8	2
112	ELECTRONIC TRANSPORT CALCULATION OF FINITE SINGLE-WALLED CARBON NANOTUBE SYSTEMS IN THE TWO-TERMINAL GEOMETRY. , 2007, , .		0
113	Role of contact bonding on electronic transport in metal–carbon nanotube–metal systems. Nanotechnology, 2006, 17, 5063-5072.	1.3	44
114	Ultra-shallow junction by laser annealing: Integration issues and modelling. Nuclear Instruments & Methods in Physics Research B, 2006, 253, 1-8.	0.6	2
115	Origin of the Current Transport Anisotropy in Epitaxial Graphene Grown on Vicinal 4H-SiC (0001) Surfaces. Materials Science Forum, 0, 806, 103-107.	0.3	1
116	Atomistic Simulations and Interfacial Morphology of Graphene Grown on SiC(0001) and SiC(000-1) Substrates. Materials Science Forum, 0, 858, 1121-1124.	0.3	0
117	Interfacial Disorder of Graphene Grown at High Temperatures on 4H-SiC(000-1). Materials Science Forum, 0, 858, 1129-1132.	0.3	0
118	Multiscale Simulations of Plasma Etching in Silicon Carbide Structures. Materials Science Forum, 0, 1062, 214-218.	0.3	1
119	Computational Study of the Silicon Vacancy in 3C-SiC and Perspectives for Quantum Technologies. Materials Science Forum, 0, 1062, 309-314.	0.3	0