

Geoffrey Pourtois

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8424935/publications.pdf>

Version: 2024-02-01

74
papers

2,746
citations

361413

20
h-index

175258

52
g-index

74
all docs

74
docs citations

74
times ranked

5139
citing authors

#	ARTICLE	IF	CITATIONS
1	On the elastic tensors of ultra-thin films: A study of ruthenium. Applied Surface Science, 2022, 592, 153194.	6.1	1
2	Properties of ultrathin molybdenum films for interconnect applications. Materialia, 2022, 24, 101511.	2.7	15
3	Oxygen Defect Stability in Amorphous, <i>c</i> -Axis Aligned, and Spinel IGZO. ACS Applied Electronic Materials, 2021, 3, 4037-4046.	4.3	8
4	Point defect formation near the epitaxial Ge(001) growth surface and the impact on phosphorus doping activation. Journal of Applied Physics, 2021, 130, 125702.	2.5	0
5	Effect of Strain on the Epitaxy of B-Doped Si _{0.5} Ge _{0.5} Source/Drain Layers. ECS Transactions, 2021, 104, 167-179.	0.5	1
6	Selectivity Enhancement for Ruthenium Atomic Layer Deposition in Sub-50nm Nanopatterns by Diffusion and Size-Dependent Reactivity. Advanced Materials Interfaces, 2021, 8, 2100846.	3.7	9
7	Strain and ferroelectricity in wurtzite Sc _x Al _{1-x} N materials. Applied Physics Letters, 2021, 119, .	3.3	11
8	Source/Drain Materials for Ge nMOS Devices: Phosphorus Activation in Epitaxial Si, Ge, Ge _{1-x} Sn _x and Si _y Ge _{1-x} Sn _x . ECS Journal of Solid State Science and Technology, 2020, 9, 044010.	1.8	5
9	A demonstration of donor passivation through direct formation of V-As complexes in As-doped Ge _{1-x} Sn _x . Journal of Applied Physics, 2020, 127, .	2.5	2
10	Grain-Boundary-Induced Strain and Distortion in Epitaxial Bilayer MoS ₂ Lattice. Journal of Physical Chemistry C, 2020, 124, 6472-6478.	3.1	12
11	Identifying alternative ferroelectric materials beyond Hf(Zr)O ₂ . Applied Physics Letters, 2020, 117, 262903.	3.3	3
12	(Invited) Sub-40mV Sigma V _{TH} Igzo nFETs in 300mm Fab. ECS Transactions, 2020, 98, 205-217.	0.5	7
13	(Invited) Stress Simulations of Fins, Wires, and Nanosheets. ECS Transactions, 2020, 98, 253-265.	0.5	7
14	Contact Resistance at MoS ₂ -Based 2D Metal/Semiconductor Lateral Heterojunctions. ACS Applied Nano Materials, 2019, 2, 760-766.	5.0	19
15	Heavily phosphorus doped germanium: Strong interaction of phosphorus with vacancies and impact of tin alloying on doping activation. Journal of Applied Physics, 2019, 125, .	2.5	6
16	Insights into the C Distribution in Si:C/Si:C:P and the Annealing Behavior of Si:C Layers. ECS Journal of Solid State Science and Technology, 2019, 8, P209-P216.	1.8	0
17	Evolution of phosphorus-vacancy clusters in epitaxial germanium. Journal of Applied Physics, 2019, 125, .	2.5	13
18	Characterization of Highly Doped Si:P, Si:As and Si:P:As Epi Layers for Source/Drain Epitaxy. ECS Transactions, 2019, 93, 11-15.	0.5	3

#	ARTICLE	IF	CITATIONS
19	On the Evolution of Strain and Electrical Properties in As-Grown and Annealed Si:P Epitaxial Films for Source-Drain Stressor Applications. ECS Journal of Solid State Science and Technology, 2018, 7, P228-P237.	1.8	4
20	Microcanonical RT-TDDFT simulations of realistically extended devices. Journal of Chemical Physics, 2018, 149, 124701.	3.0	4
21	The Role of Nonidealities in the Scaling of MoS ₂ FETs. IEEE Transactions on Electron Devices, 2018, 65, 4635-4640.	3.0	14
22	Layer-controlled epitaxy of 2D semiconductors: bridging nanoscale phenomena to wafer-scale uniformity. Nanotechnology, 2018, 29, 425602.	2.6	48
23	Toward an Understanding of the Electric Field-Induced Electrostatic Doping in van der Waals Heterostructures: A First-Principles Study. ACS Applied Materials & Interfaces, 2017, 9, 7725-7734.	8.0	20
24	Nature of electron trap states under inversion at In _{0.53} Ga _{0.47} As/Al ₂ O ₃ interfaces. Applied Physics Letters, 2017, 110, 111602.	3.3	2
25	Hole-Doping Induced Ferromagnetism in Monolayer SnO: A First-Principles Study. ECS Transactions, 2017, 80, 339-345.	0.5	7
26	Kinetic and thermodynamic heterogeneity: an intrinsic source of variability in Cu-based RRAM memories. Journal of Computational Electronics, 2017, 16, 1011-1016.	2.5	3
27	(Invited) Probing the Intrinsic Limitations of the Contact Resistance of Metal/Semiconductor Interfaces through Atomistic Simulations. ECS Transactions, 2017, 80, 303-311.	0.5	2
28	On the manifestation of phosphorus-vacancy complexes in epitaxial Si:P films. Applied Physics Letters, 2016, 108, .	3.3	15
29	Mechanical and Electronic Properties of Thin-Film Transistors on Plastic, and Their Integration in Flexible Electronic Applications. Advanced Materials, 2016, 28, 4266-4282.	21.0	218
30	First-principles thermodynamics and defect kinetics guidelines for engineering a tailored RRAM device. Journal of Applied Physics, 2016, 119, 225107.	2.5	38
31	Silicene nanoribbons on transition metal dichalcogenide substrates: Effects on electronic structure and ballistic transport. Nano Research, 2016, 9, 3394-3406.	10.4	8
32	Titanium Silicide on Si:P With Precontact Amorphization Implantation Treatment: Contact Resistivity Approaching 1×10^{-9} Ohm-cm ² . IEEE Transactions on Electron Devices, 2016, 63, 4632-4641.	3.0	44
33	Topological to trivial insulating phase transition in stanene. Nano Research, 2016, 9, 774-778.	10.4	32
34	Ab-initio study of the segregation and electronic properties of neutral and charged B and P dopants in Si and Si/SiO ₂ nanowires. Journal of Applied Physics, 2015, 118, 104306.	2.5	3
35	Atomic Layer Deposition of Ruthenium on Ruthenium Surfaces: A Theoretical Study. Journal of Physical Chemistry C, 2015, 119, 6592-6603.	3.1	19
36	Capturing Wetting States in Nanopatterned Silicon. ACS Nano, 2014, 8, 885-893.	14.6	55

#	ARTICLE	IF	CITATIONS
37	First-principles material modeling of solid-state electrolytes with the spinel structure. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 5399.	2.8	14
38	HfO _x as RRAM material – First principles insights on the working principles. <i>Microelectronic Engineering</i> , 2014, 120, 13-18.	2.4	36
39	Opportunities in nanometer sized Si wires for PV applications. <i>Progress in Materials Science</i> , 2013, 58, 1361-1387.	32.8	20
40	Stability of Si epoxide defects in Si nanowires: a mixed reactive force field/DFT study. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 15091.	2.8	3
41	Reactive molecular dynamics simulations on SiO ₂ -coated ultra-small Si-nanowires. <i>Nanoscale</i> , 2013, 5, 719-725.	5.6	21
42	Work-Function Modification of Au and Ag Surfaces upon Deposition of Self-Assembled Monolayers: Influence of the Choice of the Theoretical Approach and the Thiol Decomposition Scheme. <i>ChemPhysChem</i> , 2013, 14, 2939-2946.	2.1	14
43	Quantum simulations of electrostatics in Si cylindrical junctionless nanowire nFETs and pFETs with a homogeneous channel including strain and arbitrary crystallographic orientations. <i>Solid-State Electronics</i> , 2012, 71, 30-36.	1.4	2
44	Strain-induced semiconductor to metal transition in the two-dimensional honeycomb structure of MoS ₂ . <i>Nano Research</i> , 2012, 5, 43-48.	10.4	620
45	Mechanisms for the Trimethylaluminum Reaction in Aluminum Oxide Atomic Layer Deposition on Sulfur Passivated Germanium. <i>Journal of Physical Chemistry C</i> , 2011, 115, 17523-17532.	3.1	8
46	Single Layer vs Bilayer Graphene: A Comparative Study of the Effects of Oxygen Plasma Treatment on Their Electronic and Optical Properties. <i>Journal of Physical Chemistry C</i> , 2011, 115, 16619-16624.	3.1	60
47	A density-functional theory simulation of the formation of Ni-doped fullerenes by ion implantation. <i>Carbon</i> , 2011, 49, 1013-1017.	10.3	20
48	(Invited) Aluminium Oxide Atomic Layer Deposition on Semiconductor Substrates. <i>ECS Transactions</i> , 2011, 41, 149-160.	0.5	2
49	(Invited) Vanadium Oxide as a Memory Material. <i>ECS Transactions</i> , 2011, 35, 233-243.	0.5	16
50	(Invited) Boosting the On-Current of Si-Based Tunnel Field-Effect Transistors. <i>ECS Transactions</i> , 2010, 33, 363-372.	0.5	9
51	(Invited) Chemisorption Reaction Mechanisms for Atomic Layer Deposition of High-k Oxides on High Mobility Channels. <i>ECS Transactions</i> , 2010, 33, 343-353.	0.5	5
52	(Invited) First-Principles Investigation of High-k Dielectrics for Nonvolatile Memories. <i>ECS Transactions</i> , 2010, 33, 393-407.	0.5	3
53	Bandgap opening in oxygen plasma-treated graphene. <i>Nanotechnology</i> , 2010, 21, 435203.	2.6	289
54	On the Process and Material Sensitivities for High-k Based Dielectrics. <i>ECS Transactions</i> , 2010, 27, 693-698.	0.5	0

#	ARTICLE	IF	CITATIONS
55	Dielectric Response of Ta ₂ O ₅ , NbTaO ₅ and Nb ₂ O ₅ from First-Principles Investigations. ECS Transactions, 2009, 19, 729-737.	0.5	17
56	The Importance of Moisture Control for EOT Scaling of Hf-Based Dielectrics. Journal of the Electrochemical Society, 2009, 156, H416.	2.9	9
57	The Influence of the Epitaxial Growth Process Parameters on Layer Characteristics and Device Performance in Si-passivated Ge pMOSFETs. ECS Transactions, 2009, 19, 183-194.	0.5	13
58	Growth and Material Characterization of Hafnium Titanates Deposited by Atomic Layer Deposition. Journal of the Electrochemical Society, 2009, 156, G145.	2.9	15
59	Interfaces of high- <i>k</i> dielectrics on GaAs: Their common features and the relationship with Fermi level pinning (Invited Paper). Microelectronic Engineering, 2009, 86, 1529-1535.	2.4	49
60	Crystallization resistance of barium titanate zirconate ultrathin films from aqueous CSD: a study of cause and effect. Journal of Materials Chemistry, 2009, 19, 1115.	6.7	9
61	Te-induced modulation of the Mo/HfO ₂ interface effective work function. Applied Physics Letters, 2008, 92, .	3.3	13
62	Analytical and self-consistent quantum mechanical model for surrounding gate MOS nanowire operated in JFET mode. Journal of Computational Electronics, 2008, 7, 380-383.	2.5	87
63	Workfunction (WF) Simulations of Ta/HfO ₂ , Ta ₂ C/HfO ₂ and Ta ₂ C/La ₂ O ₃ /HfO ₂ Capped High- <i>k</i> Stacks. ECS Transactions, 2007, 11, 135-143.	0.5	2
64	First-Principles Investigation of (100)Ge/Ge(Hf)O ₂ Interfaces. ECS Transactions, 2007, 11, 471-478.	0.5	4
65	Germanium: The Past and Possibly a Future Material for Microelectronics. ECS Transactions, 2007, 11, 479-493.	0.5	33
66	Study of the Reliability Impact of Chlorine Precursor Residues in Thin Atomic-Layer-Deposited HfO ₂ Layers. IEEE Transactions on Electron Devices, 2007, 54, 752-758.	3.0	20
67	Ni fully silicided gates for 45nm CMOS applications. Microelectronic Engineering, 2005, 82, 441-448.	2.4	34
68	Exciton Migration in Rigid-Rod Conjugated Polymers: An Improved Förster Model. Journal of the American Chemical Society, 2005, 127, 4744-4762.	13.7	257
69	Photophysical Properties of Ruthenium(II) Polycyclic Aromatic Compounds: A Theoretical Insight. Journal of the American Chemical Society, 2004, 126, 683-692.	13.7	114
70	Alternating Oligo(<i>p</i> -phenylene vinylene)-Perylene Bisimide Copolymers: Synthesis, Photophysics, and Photovoltaic Properties of a New Class of Donor-Acceptor Materials. Journal of the American Chemical Society, 2003, 125, 8625-8638.	13.7	195
71	Effect of Ion Coordination on the Conformational and Electronic Structure of 3,4-Bis(alkylthio)thiophenes. European Journal of Inorganic Chemistry, 2001, 2001, 821-828.	2.0	12
72	STM Imaging of a Heptanuclear Ruthenium(II) Dendrimer, Mono-Add Layer on Graphite. Chemistry - A European Journal, 2000, 6, 1331-1336.	3.3	33

#	ARTICLE	IF	CITATIONS
73	The Vibrational Signature of the Aluminum/Polythiophene Interface. <i>Advanced Materials</i> , 1998, 10, 319-324.	21.0	25
74	Some Critical Issues in Pattern Collapse Prevention and Repair. <i>Solid State Phenomena</i> , 0, 255, 147-151.	0.3	5