Pawel Keblinski

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/5698819/publications.pdf

Version: 2024-02-01

137 papers	18,821 citations	19657 61 h-index	14208 128 g-index
137 all docs	137 docs citations	137 times ranked	13309 citing authors

#	Article	IF	Citations
1	Molecular simulation of steady-state evaporation and condensation of water in air. International Journal of Heat and Mass Transfer, 2022, 184, 122285.	4.8	18
2	Viscoelastic bandgap in multilayers of inorganicâ€“organic nanolayer interfaces. Scientific Reports, 2022, 12, .	3.3	2
3	Molecular dynamics study of domain switching dynamics in KNbO3 and BaTiO3. Journal of Materials Science, 2022, 57, 12929-12946.	3.7	0
4	On the applicability of continuum scale models for ultrafast nanoscale liquid-vapor phase change. International Journal of Multiphase Flow, 2021, 135, 103508.	3.4	2
5	Interfacial thermal conductance between multi-layer graphene sheets and solid/liquid octadecane: A molecular dynamics study. Journal of Energy Storage, 2021, 37, 102469.	8.1	9
6	Thermal transport dynamics in active heat transfer fluids (AHTF). Journal of Applied Physics, 2021, 129, 174702.	2.5	6
7	Investigating the validity of Schrage relationships for water using molecular dynamics simulations. Journal of Chemical Physics, 2020, 153, 124505.	3.0	21
8	A molecular dynamics study of transient evaporation and condensation. International Journal of Heat and Mass Transfer, 2020, 149, 119152.	4.8	28
9	Modeling of Heat Transport in Polymers and Their Nanocomposites. , 2020, , 975-997.		4
10	Using pressure to probe thermodynamic anomalies in tetrahedrally-bonded materials. Journal of Applied Physics, 2019, 126, .	2.5	1
11	Viscoelastic and dynamic properties of polymer grafted nanocomposites with high glass transition temperature graft chains. Journal of Applied Physics, 2019, 126, .	2.5	9
12	Mass accommodation at a high-velocity water liquid-vapor interface. Journal of Chemical Physics, 2019, 150, 154705.	3.0	7
13	Gibbs Adsorption Impact on a Nanodroplet Shape: Modification of Youngâ€“Laplace Equation. Journal of Physical Chemistry B, 2018, 122, 3176-3183.	2.6	15
14	Stochasticity in materials structure, properties, and processingâ€”A review. Applied Physics Reviews, 2018, 5, .	11.3	15
15	Modeling of Heat Transport in Polymers and Their Nanocomposites. , 2018, , 1-23.		0
16	Molecular simulation of steady-state evaporation and condensation in the presence of a non-condensable gas. Journal of Chemical Physics, 2018, 148, 064708.	3.0	33
17	Phonon interference in crystalline and amorphous confined nanoscopic films. Journal of Applied Physics, 2017, 121, .	2.5	10
18	Commonalities in frequency-dependent viscoelastic damping in glasses in the MHz to THz regime. Journal of Applied Physics, 2017, 122, .	2.5	12

#	Article	IF	Citations
19	Structural vs. compositional disorder in thermal conductivity reduction of SiGe alloys. Journal of Applied Physics, 2017, 122, .	2.5	11
20	Viscoelastic and Dynamic Properties of Well-Mixed and Phase-Separated Binary Polymer Blends: A Molecular Dynamics Simulation Study. Macromolecules, 2017, 50, 6293-6302.	4.8	7
21	Frequency-dependent mechanical damping in alloys. Physical Review B, 2017, 95, .	3.2	8
22	Molecular simulation of steady-state evaporation and condensation: Validity of the Schrage relationships. International Journal of Heat and Mass Transfer, 2017, 114, 105-114.	4.8	77
23	Viscoelastic damping in crystalline composites: A molecular dynamics study. Composites Part B: Engineering, 2016, 93, 273-279.	12.0	13
24	Nonlinear Electronâ€Lattice Interactions in a Wurtzite Semiconductor Enabled via Strongly Correlated Oxide. Advanced Materials, 2016, 28, 8975-8982.	21.0	10
25	Sound attenuation in amorphous silica at frequencies near the boson peak. Physical Review B, 2016, 93, .	3.2	9
26	Continuum and molecular-dynamics simulation of nanodroplet collisions. Physical Review E, 2016, 93, 053104.	2.1	17
27	Modeling high-temperature diffusion of gases in micro and mesoporous amorphous carbon. Journal of Chemical Physics, 2015, 143, 084701.	3.0	9
28	Coalescence-induced jumping of nanoscale droplets on super-hydrophobic surfaces. Applied Physics Letters, 2015, 107, .	3.3	55
29	Multifold Increases in Thermal Conductivity of Polymer Nanocomposites through Microwave Welding of Metal Nanowire Fillers. Advanced Materials Interfaces, 2015, 2, 1500186.	3.7	33
30	Slip length crossover on a graphene surface. Journal of Chemical Physics, 2015, 142, 134701.	3.0	18
31	Molecular dynamics investigation of nanoscale cavitation dynamics. Journal of Chemical Physics, 2014, 141, 234508.	3.0	46
32	Curvature induced phase stability of an intensely heated liquid. Journal of Chemical Physics, 2014, 140, 234506.	3.0	13
33	Ballistic vs. diffusive heat transfer across nanoscopic films of layered crystals. Journal of Applied Physics, 2014, 115, .	2.5	17
34	Nanoscale thermal transport. II. 2003â€“2012. Applied Physics Reviews, 2014, 1, 011305.	11.3	1,277
35	Finite-size effects on molecular dynamics interfacial thermal-resistance predictions. Physical Review B, 2014, 90, .	3.2	43
36	Phonon Transport through Point Contacts between Graphitic Nanomaterials. Physical Review Letters, 2014, 112, .	7.8	60

#	Article	IF	Citations
37	Thermal Transport across a Substrateâ€“Thin-Film Interface: Effects of Film Thickness and Surface Roughness. Physical Review Letters, 2014, 113, 065901.	7.8	88
38	Improvement in thermal conductivity of paraffin by adding high aspect-ratio carbon-based nano-fillers. Physics Letters, Section A: General, Atomic and Solid State Physics, 2013, 377, 1358-1361.	2.1	59
39	Interfacial thermal conductance-rheology nexus in metal-contacted nanocomposites. Applied Physics Letters, 2013, 103, .	3.3	5
40	Bonding-induced thermal conductance enhancement at inorganic heterointerfaces usingÂnanomolecular monolayers. Nature Materials, 2013, 12, 118-122.	27.5	223
41	Nanowire-filled polymer composites with ultrahigh thermal conductivity. Applied Physics Letters, 2013, 102, .	3.3	74
42	Equilibrium and nonequilibrium molecular dynamics simulations of thermal conductance at solid-gas interfaces. Physical Review E, 2013, 87, 022119.	2.1	41
43	A proof for insignificant effect of Brownian motion-induced micro-convection on thermal conductivity of nanofluids by utilizing molecular dynamics simulations. Journal of Applied Physics, 2013, 113, .	2.5	43
44	Thermal conductivity enhancement of paraffins by increasing the alignment of molecules through adding CNT/graphene. International Journal of Heat and Mass Transfer, 2013, 58, 209-216.	4.8	190
45	Gating heat transport by manipulating convection in a magnetic nanofluid. Applied Physics Letters, 2013, 102, .	3.3	6
46	Improvement of heat transfer efficiency at solid-gas interfaces by self-assembled monolayers. Applied Physics Letters, 2013, 102, 061907.	3.3	31
47	Heat transfer mechanism across few-layer graphene by molecular dynamics. Physical Review B, 2013, 88, .	3.2	80
48	Liquid Phase Stability Under an Extreme Temperature Gradient. Physical Review Letters, 2013, 111, 225701.	7.8	8
49	Effect of crosslink formation on heat conduction in amorphous polymers. Journal of Applied Physics, 2013, 114, .	2.5	89
50	Inter-tube thermal conductance in carbon nanotubes arrays and bundles: Effects of contact area and pressure. Applied Physics Letters, 2012, 100, .	3.3	59
51	Effect of interfacial interactions and nanoscale confinement on octane melting. Journal of Applied Physics, 2012, 111, .	2.5	6
52	Viscosity calculation of a nanoparticle suspension confined in nanochannels. Physical Review E, 2012, 86, 036313.	2.1	4
53	Equilibrium molecular dynamics determination of thermal conductivity for multi-component systems. Journal of Applied Physics, 2012, 112, .	2.5	61
54	How Chemistry, Nanoscale Roughness, and the Direction of Heat Flow Affect Thermal Conductance of Solidâ€“Water Interfaces. Industrial & Engineering Chemistry Research, 2012, 51, 1767-1773.	3.7	78

#	Article	IF	Citations
55	Bonding and pressure-tunable interfacial thermal conductance. Physical Review B, 2011, 84, .	3.2	65
56	Interfacial thermal transport in atomic junctions. Physical Review B, 2011, 83, .	3.2	90
57	Thermal transport in graphene-based nanocomposite. Journal of Applied Physics, 2011, 110, .	2.5	91
58	Role of wetting and nanoscale roughness on thermal conductance at liquid-solid interface. Applied Physics Letters, 2011, 99, .	3.3	78
59	Effect of chain conformation in the phonon transport across a Si-polyethylene single-molecule covalent junction. Journal of Applied Physics, 2011, 109, .	2.5	34
60	Cross-plane thermal conductivity of superlattices with rough interfaces using equilibrium and non-equilibrium molecular dynamics. International Journal of Heat and Mass Transfer, 2011, 54, 2014-2020.	4.8	54
61	Testing the minimum thermal conductivity model for amorphous polymers using high pressure. Physical Review B, 2011, 83, .	3.2	87
62	Pressure tuning of the thermal conductance of weak interfaces. Physical Review B, 2011, 84, .	3.2	89
63	Determination of interfacial thermal resistance at the nanoscale. Physical Review B, 2011, 83, .	3.2	136
64	One-dimensional phonon effects in direct molecular dynamics method for thermal conductivity determination. Journal of Applied Physics, 2011, 110, .	2.5	24
65	Thermal Transport in Self-Assembled Conductive Networks for Thermal Interface Materials. Journal of Electronic Packaging, Transactions of the ASME, 2011, 133, .	1.8	0
66	Phonon interference at self-assembled monolayer interfaces: Molecular dynamics simulations. Physical Review B, 2010, 81, .	3.2	79
67	Thermal conductivity of carbon nanotube cross-bar structures. Nanotechnology, 2010, 21, 475704.	2.6	18
68	Thermal conductivity of graphene ribbons from equilibrium molecular dynamics: Effect of ribbon width, edge roughness, and hydrogen termination. Applied Physics Letters, 2010, 96, .	3.3	306
69	Predicting the thermal conductivity of inorganic and polymeric glasses: The role of anharmonicity. Journal of Applied Physics, 2009, 105, .	2.5	88
70	Pressure tuning of the thermal conductivity of the layered muscovite crystal. Physical Review B, 2009, 80, .	3.2	103
71	Nonequilibrium molecular dynamics simulation of the in-plane thermal conductivity of superlattices with rough interfaces. Physical Review B, 2009, 79, .	3.2	69
72	Heat transfer from nanoparticles: A corresponding state analysis. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15113-15118.	7.1	186

#	Article	IF	Citations
73	Using vibrational mode analysis for predicting the coefficient of thermal expansion of amorphous polymers. Journal of Polymer Science, Part B: Polymer Physics, 2009, 47, 2114-2121.	2.1	3
74	A benchmark study on the thermal conductivity of nanofluids. Journal of Applied Physics, 2009, 106, .	2.5	897
75	Thermal Conductivity of Nanofluids. Topics in Applied Physics, 2009, , 213-221.	0.8	7
76	How Wetting and Adhesion Affect Thermal Conductance of a Range of Hydrophobic to Hydrophilic Aqueous Interfaces. Physical Review Letters, 2009, 102, 156101.	7.8	251
77	Turning Carbon Nanotubes from Exceptional Heat Conductors into Insulators. Physical Review Letters, 2009, 102, 105901.	7.8	279
78	Critical heat flux around strongly heated nanoparticles. Physical Review E, 2009, 79, 021404.	2.1	81
79	Kapitza conductance of siliconâ€“amorphous polyethylene interfaces by molecular dynamics simulations. Physical Review B, 2009, 79, .	3.2	165
80	Thermal conductance of nanofluids: is the controversy over?. Journal of Nanoparticle Research, 2008, 10, 1089-1097.	1.9	359
81	Effect of aggregation and interfacial thermal resistance on thermal conductivity of nanocomposites and colloidal nanofluids. International Journal of Heat and Mass Transfer, 2008, 51, 1431-1438.	4.8	405
82	Strong frequency dependence of dynamical coupling between protein and water. Journal of Chemical Physics, 2008, 129, 155105.	3.0	33
83	Thermal rectification at silicon-amorphous polyethylene interface. Applied Physics Letters, 2008, 92, 211908.	3.3	88
84	Phonon-defect scattering in doped silicon by molecular dynamics simulation. Journal of Applied Physics, 2008, 104, 024905.	2.5	10
85	Thermal conductance across grain boundaries in diamond from molecular dynamics simulation. Journal of Applied Physics, 2007, 102, 063503.	2.5	47
86	Molecular Dynamics Simulation of Thermal Conductivity of Diamondoid Crystals. Materials Research Society Symposia Proceedings, 2007, 1022, 1.	0.1	0
87	Molecular dynamics simulation of interfacial thermal conductance between silicon and amorphous polyethylene. Applied Physics Letters, 2007, 91, .	3.3	71
88	Molecular Underpinnings of the Mechanical Reinforcement in Polymer Nanocomposites. Macromolecules, 2007, 40, 4059-4067.	4.8	101
89	Thermal transport and grain boundary conductance in ultrananocrystalline diamond thin films. Journal of Applied Physics, 2006, 99, 114301.	2.5	139
90	Role of Brownian motion hydrodynamics on nanofluid thermal conductivity. Applied Physics Letters, 2006, 88, 093116.	3.3	361

#	Article	IF	Citations
91	Vibrations and thermal transport in nanocrystalline silicon. Physical Review B, 2006, 74, .	3.2	102
92	Medium range order and the radial distribution function. Journal of Non-Crystalline Solids, 2006, 352, 116-122.	3.1	13
93	Molecular dynamics simulations of heat and momentum transfer at a solidâ€“fluid interface: Relationship between thermal and velocity slip. International Journal of Heat and Mass Transfer, 2006, 49, 3401-3407.	4.8	72
94	Effect of aggregation on thermal conduction in colloidal nanofluids. Applied Physics Letters, 2006, 89, 143119.	3.3	351
95	Thermal relaxation mechanism and role of chemical functionalization in fullerene solutions. Journal of Chemical Physics, 2006, 124, 014702.	3.0	14
96	Hydrodynamic field around a Brownian particle. Physical Review E, 2006, 73, 010502.	2.1	35
97	Viscoelasticity in carbon nanotube composites. Nature Materials, 2005, 4, 134-137.	27.5	443
98	Interfacial thermal conductivity: Insights from atomic level simulation. Journal of Materials Science, 2005, 40, 3143-3148.	3.7	20
99	Nanofluids for thermal transport. Materials Today, 2005, 8, 36-44.	14.2	688
100	Quantum Dots from Irradiated Carbon Nanotubes. AIP Conference Proceedings, 2005, , .	0.4	0
101	Thermal Resistance of Nanoscopic Liquidâ^'Liquid Interfaces:â€‰ Dependence on Chemistry and Molecular Architecture. Nano Letters, 2005, 5, 2225-2231.	9.1	93
102	Carbon Nanotubes with Graphitic Wings. Advanced Materials, 2004, 16, 610-613.	21.0	28
103	Effect of liquid layering at the liquidâ€“solid interface on thermal transport. International Journal of Heat and Mass Transfer, 2004, 47, 4277-4284.	4.8	423
104	THERMAL TRANSPORT IN NANOFLUIDS. Annual Review of Materials Research, 2004, 34, 219-246.	9.3	735
105	Contact resistance in percolating networks. Physical Review B, 2004, 69, .	3.2	56
106	Kapitza conductance and phonon scattering at grain boundaries by simulation. Journal of Applied Physics, 2004, 95, 6082-6091.	2.5	222
107	Effect of chemical functionalization on thermal transport of carbon nanotube composites. Applied Physics Letters, 2004, 85, 2229-2231.	3.3	272
108	Role of thermal boundary resistance on the heat flow in carbon-nanotube composites. Journal of Applied Physics, 2004, 95, 8136-8144.	2.5	474

#	Article	IF	Citations
109	Effect of High-Temperature Structure and Diffusion on Grain-Boundary Diffusion Creep in fcc Metals. Journal of Materials Science, 2003, 11, 111-120.	1.2	20
110	Interfacial heat flow in carbon nanotube suspensions. Nature Materials, 2003, 2, 731-734.	27.5	1,027
111	Thermal expansion of carbon structures. Physical Review B, 2003, 68, .	3.2	185
112	Quantum Dots from Carbon Nanotube Junctions. Materials Research Society Symposia Proceedings, 2003, 789, 217.	0.1	1
113	Two regimes of thermal resistance at a liquidâ€“solid interface. Journal of Chemical Physics, 2003, 118, 337-339.	3.0	199
114	Density fluctuation correlation length in polymer fluids. Journal of Chemical Physics, 2003, 119, 7599-7603.	3.0	17
115	A quantitative measure of medium-range order in amorphous materials from transmission electron micrographs. Journal of Physics Condensed Matter, 2003, 15, S2425-S2435.	1.8	28
116	Thermodynamic behavior of a model covalent material described by the environment-dependent interatomic potential. Physical Review B, 2002, 66, .	3.2	43
117	Charge Distribution and Stability of Charged Carbon Nanotubes. Physical Review Letters, 2002, 89, 255503.	7.8	79
118	Damping and Stiffness Enhancement in Composite Systems with Carbon Nanotubes Films. Materials Research Society Symposia Proceedings, 2002, 740, 1.	0.1	3
119	Comparison of atomic-level simulation methods for computing thermal conductivity. Physical Review B, 2002, 65, .	3.2	1,315
120	Temperature dependence of radial breathing mode Raman frequency of single-walled carbon nanotubes. Physical Review B, 2002, 66, .	3.2	250
121	Phonon wave-packet dynamics at semiconductor interfaces by molecular-dynamics simulation. Applied Physics Letters, 2002, 80, 2484-2486.	3.3	290
122	Mechanisms of heat flow in suspensions of nano-sized particles (nanofluids). International Journal of Heat and Mass Transfer, 2002, 45, 855-863.	4.8	1,879
123	High Temperature Structure and Properties of Grain Boundaries - Insights Obtained from Atomic Level Simulations. Acta Physica Polonica A, 2002, 102, 123-134.	0.5	1
124	Structure and physical properties of paracrystalline atomistic models of amorphous silicon. Journal of Applied Physics, 2001, 90, 4437-4451.	2.5	85
125	Molecular dynamics study of screening in ionic fluids. Journal of Chemical Physics, 2000, 113, 282-291.	3.0	91
126	Self-diffusion in high-angle fcc metal grain boundaries by molecular dynamics simulation. Philosophical Magazine A: Physics of Condensed Matter, Structure, Defects and Mechanical Properties, 1999, 79, 2735-2761.	0.6	109

#	Article	IF	Citations
127	Title is missing!. Journal of Materials Science, 1999, 7, 15-31.	1.2	17
128	Exact method for the simulation of Coulombic systems by spherically truncated, pairwise râ^'1 summation. Journal of Chemical Physics, 1999, 110, 8254-8282.	3.0	809
129	Structure and Properties of Polycrystalline Materials From Simulation: An Interfacial Perspective. Materials Research Society Symposia Proceedings, 1999, 586, 289.	0.1	0
130	Molecular-Dynamics Simulation of Grain-Boundary Diffusion Creep. Journal of Materials Science, 1998, 6, 205-212.	1.2	88
131	Role of bonding and coordination in the atomic structure and energy of diamond and silicon grain boundaries. Journal of Materials Research, 1998, 13, 2077-2100.	2.6	81
132	Thermodynamics and Kinetics of Melting and Growth of Crystalline Silicon Clusters. Materials Research Society Symposia Proceedings, 1998, 536, 311.	0.1	5
133	Structural Disorder and Localized Gap States in Silicon Grain Boundaries from a Tight-Binding Model. Materials Research Society Symposia Proceedings, 1997, 491, 513.	0.1	0
134	Comparison of the Structure of Grain Boundaries in Silicon and Diamond by Molecular-Dynamics Simulations. Materials Research Society Symposia Proceedings, 1997, 472, 15.	0.1	0
135	On the Thermodynamic Stability of Amorphous Intergranular Films in Covalent Materials. Journal of the American Ceramic Society, 1997, 80, 717-732.	3.8	72
136	Amorphous structure of grain boundaries and grain junctions in nanocrystalline silicon by molecular-dynamics simulation. Acta Materialia, 1997, 45, 987-998.	7.9	131
137	Atomistic Simulation of Nanocrystalline Materials. Materials Research Society Symposia Proceedings, 1995, 400, 115.	0.1	1