George Palasantzas

List of Publications by Year
in descending order

102 papers	3,844 citations	126907 33 h-index	128289 60 g-index
103 all docs	103 docs citations	103 times ranked	2904 citing authors

#	Article	IF	Citations
1	Phase Separation in Ge-Rich GeSbTe at Different Length Scales: Melt-Quenched Bulk versus Annealed Thin Films. Nanomaterials, 2022, 12, 1717.	4.1	5
2	Dynamical Casimir actuation under non-equilibrium conditions: The influence of optical properties from different interacting bodies. Physics Letters, Section A: General, Atomic and Solid State Physics, 2022, 443, 128220.	2.1	2
3	Tunable wettability of polymer films by partial engulfment of nanoparticles. Physical Review Materials, 2021, 5, .	2.4	1
4	Casimir and electrostatic forces from <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:msub><mml:mi>Bi</mml:mi><mml:mn>2</mml:mn></mml:m thin films of varying thickness. Physical Review B, 2021, 103, .	2.2	8
5	Nonlinear Actuation of Casimir Oscillators toward Chaos: Comparison of Topological Insulators and Metals. Universe, 2021, 7, 123.	2.5	3
6	Tailoring Growth Kinetics toward a Size-Dependent Work Function of Ge Nanocrystals Synthesized by Inert Gas Condensation. Journal of Physical Chemistry C, 2021, 125, 12870-12879.	3.1	3
7	Excessive number of high asperities for sputtered rough films. Physical Review B, 2021, 104, .	3.2	5
8	Weak adhesion between deposited rough films: Relation to dispersion forces. Physical Review B, 2021, 104, .	3.2	4
9	Sensitivity of actuation dynamics on normal and lateral Casimir forces: Interaction of phase change and topological insulator materials. Chaos, 2021, 31, 103103.	2.5	4
10	Wetting of surfaces decorated by gas-phase synthesized silver nanoparticles: Effects of Ag adatoms, nanoparticle aging, and surface mobility. Journal of Chemical Physics, 2021, 155, 214701.	3.0	0
11	Explosion of Microbubbles Generated by the Alternating Polarity Water Electrolysis. Energies, 2020, 13, 20.	3.1	11
12	Applications of Casimir forces: Nanoscale actuation and adhesion. Applied Physics Letters, 2020, 117, .	3.3	15
13	Measuring the Dispersion Forces Near the van der Waalsâ€“Casimir Transition. Physical Review Applied, 2020, 13, .	3.8	14
14	Sensitivity of Casimir oscillators on geometry and optical properties. Modern Physics Letters A, 2020, 35, 2040003.	1.2	2
15	Adhered cantilevers: A new method to measure dispersion forces between rough surfaces at short distances. Modern Physics Letters A, 2020, 35, 2040014.	1.2	1
16	Chaotic motion due to lateral Casimir forces during nonlinear actuation dynamics. Chaos, 2020, 30, 073101.	2.5	3
17	Sensitivity of nonequilibrium Casimir forces on low frequency optical properties toward chaotic motion of microsystems: Drude vs plasma model. Chaos, 2020, 30, 023108.	2.5	6
18	Gas-Phase Synthesis of Tunable-Size Germanium Nanocrystals by Inert Gas Condensation. Chemistry of Materials, 2020, 32, 1627-1635.	6.7	18

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19	Sensitivity of chaotic behavior to low optical frequencies of a double-beam torsional actuator. Physical Review E, 2019, 100, 012201.	2.1	9
20	Roughness dependent wettability of sputtered copper thin films: The effect of the local surface slope. Journal of Applied Physics, 2019, 125, .	2.5	24
21	Effect of Airborne Hydrocarbons on the Wettability of Phase Change Nanoparticle Decorated Surfaces. ACS Nano, 2019, 13, 13430-13438.	14.6	16
22	Roughness-dependent wetting behavior of vapor-deposited metallic thin films. Physical Review E, 2019, 100, 022804.	2.1	17
23	Dependence of non-equilibrium Casimir forces on material optical properties toward chaotic motion during device actuation. Chaos, 2019, 29, 093126.	2.5	11
24	Comparison of Casimir forces and electrostatics from conductive SiC-Si/C and Ru surfaces. Physical Review B, 2019, 100, .	3.2	6
25	Resolving Crystallization Kinetics of GeTe Phase-Change Nanoparticles by Ultrafast Calorimetry. Crystal Growth and Design, 2018, 18, 1041-1046.	3.0	34
26	Dynamics of GeSbTe phase-change nanoparticles deposited on graphene. Nanotechnology, 2018, 29, 505706.	2.6	8
27	Dependence of chaotic actuation dynamics of Casimir oscillators on optical properties and electrostatic effects. European Physical Journal B, 2018, 91, 1.	1.5	2
28	Dependence of chaotic behavior on optical properties and electrostatic effects in double-beam torsional Casimir actuation. Physical Review E, 2018, 98, 022210.	2.1	19
29	Preparation of tunable-sized iron nanoparticles based on magnetic manipulation in inert gas condensation (IGC). Journal of Applied Physics, 2017, 121, .	2.5	7
30	Crystallization Kinetics of GeSbTe Phase-Change Nanoparticles Resolved by Ultrafast Calorimetry. Journal of Physical Chemistry C, 2017, 121, 8569-8578.	3.1	56
31	Sensitivity on materials optical properties of single beam torsional Casimir actuation. Journal of Applied Physics, 2017, 121, .	2.5	18
32	Chaotic behavior in Casimir oscillators: A case study for phase-change materials. Physical Review E, 2017, 96, 042215.	2.1	17
33	Global consequences of a local Casimir force: Adhered cantilever. Applied Physics Letters, 2017, 111, .	3.3	12
34	Size-dependent and tunable crystallization of GeSbTe phase-change nanoparticles. Scientific Reports, 2016, 6, 39546.	3.3	30
35	Control surface wettability with nanoparticles from phase-change materials. Applied Physics Letters, 2016, 109, 234102.	3.3	9
36	Synthesis and morphology of ironâ€“iron oxide coreâ€“shell nanoparticles produced by high pressure gas condensation. Nanotechnology, 2016, 27, 215703.	2.6	19

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37	Casimir force measurements from silicon carbide surfaces. Physical Review B, 2016, 93, .	3.2	47
38	Capillary-force measurement on SiC surfaces. Physical Review E, 2016, 93, 062803.	2.1	6
39	Nonlinear Actuation Dynamics of Driven Casimir Oscillators with Rough Surfaces. Physical Review Applied, 2015, 4, .	3.8	43
40	Roughness controlled superhydrophobicity on single nanometer length scale with metal nanoparticles. RSC Advances, 2015, 5, 28696-28702.	3.6	33
41	Influence of low optical frequencies on actuation dynamics of microelectromechanical systems via Casimir forces. Journal of Applied Physics, 2015, 117, 144901.	2.5	13
42	Influence of materials' optical response on actuation dynamics by Casimir forces. Journal of Physics Condensed Matter, 2015, 27, 214014.	1.8	8
43	Influence of surface roughness on dispersion forces. Advances in Colloid and Interface Science, 2015, 216, 1-19.	14.7	47
44	Surface engineering of the quality factor of metal coated microcantilevers. Journal of Applied Physics, 2014, 116, 224303.	2.5	0
45	Casimir and hydrodynamic force influence on microelectromechanical system actuation in ambient conditions. Applied Physics Letters, 2014, 104, 074108.	3.3	7
46	Note: Spring constant calibration of nanosurface-engineered atomic force microscopy cantilevers. Review of Scientific Instruments, 2014, 85, 026118.	1.3	5
47	Copper nanoparticle formation in a reducing gas environment. Journal of Applied Physics, 2014, 116, .	2.5	15
48	Casimir forces from conductive silicon carbide surfaces. Physical Review B, 2014, 89, .	3.2	37
49	Significance of the Casimir force and surface roughness for actuation dynamics of MEMS. Physical Review B, 2013, 87, .	3.2	48
50	Sensitivity of micromechanical actuation on amorphous to crystalline phase transformations under the influence of Casimir forces. Physical Review B, 2013, 88, .	3.2	38
51	Viscous damping of microcantilevers with modified surfaces and geometries. Applied Physics Letters, 2012, 101, 061908.	3.3	8
52	Roughness correction to the Casimir force at short separations: Contact distance and extreme value statistics. Physical Review B, 2012, 85, .	3.2	57
53	Influence of surface modification on the quality factor of microresonators. Physical Review B, 2012, 85, .	3.2	23
54	Casimir Force Contrast Between Amorphous and Crystalline Phases of AIST. Advanced Functional Materials, 2012, 22, 3729-3736.	14.9	35

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55	Roughness correction to the Casimir force beyond perturbation theory. Europhysics Letters, 2011, 95, 30001.	2.0	31
56	Analysis of Casimir forces with window functions: Kramers-Kronig general approach for real measured dielectric data. Physical Review A, 2011, 84, .	2.5	2
57	Characterization of Optical Properties and Surface Roughness Profiles: The Casimir Force Between Real Materials. Lecture Notes in Physics, 2011, , 311-343.	0.7	3
58	Switching Casimir forces with phase-change materials. Physical Review A, 2010, 82, .	2.5	101
59	Repulsive Casimir forces between solid materials with high-refractive-index intervening liquids. Physical Review A, 2010, 81, .	2.5	78
60	OPTICAL PROPERTIES AND KINETIC ROUGHENING INFLUENCE ON DISPERSIVE CASIMIR AND VAN DER WAALS FORCES. International Journal of Modern Physics B, 2010, 24, 6013-6042.	2.0	17
61	Kinetic Roughening and Material Optical Properties Influence on Van der Waals/Casimir Forces. Acta Physica Polonica A, 2010, 117, 379-383.	0.5	1
62	Influence of dielectric properties on van der Waals/Casimir forces in solid-liquid systems. Physical Review B, 2009, 79, .	3.2	30
63	Influence of ultrathin water layer on the van der Waals/Casimir force between gold surfaces. Physical Review B, 2009, 79, .	3.2	22
64	Distance upon contact: Determination from roughness profile. Physical Review B, 2009, 80, .	3.2	52
65	Weak dispersive forces between glass and gold macroscopic surfaces in alcohols. Physical Review E, 2009, 79, 041605.	2.1	22
66	Transition from Casimir to van der Waals force between macroscopic bodies. Applied Physics Letters, 2008, 93, .	3.3	41
67	Roughness of Microspheres for Force Measurements. Langmuir, 2008, 24, 7528-7531.	3.5	35
68	Influence of roughness on capillary forces between hydrophilic surfaces. Physical Review E, 2008, 78, 031606.	2.1	80
69	Influence of random roughness on the Casimir force at small separations. Physical Review B, 2008, 77, .	3.2	99
70	Optical properties of gold films and the Casimir force. Physical Review B, 2008, 77, .	3.2	136
71	Measurement of dispersive forces between evaporated metal surfaces in the range below 100nm. Applied Physics Letters, 2008, 92, 054101.	3.3	37
72	Quality factor due to roughness scattering of shear horizontal surface acoustic waves in nanoresonators. Journal of Applied Physics, 2008, 104, 053524.	2.5	7

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73	Random surface roughness influence on gas damped nanoresonators. Applied Physics Letters, 2007, 90, 041914.	3.3	19
74	Pull-in voltage of microswitch rough plates in the presence of electromagnetic and acoustic Casimir forces. Journal of Applied Physics, 2007, 101, 063548.	2.5	41
75	Adsorption-desorption noise influence on mass sensitivity and dynamic range of nanoresonators with rough surfaces. Journal of Applied Physics, 2007, 101, 076103.	2.5	14
76	Roughness corrections to the Casimir force: The importance of local surface slope. Applied Physics Letters, 2007, 91, .	3.3	18
77	Contact angle influence on the pull-in voltage of microswitches in the presence of capillary and quantum vacuum effects. Journal of Applied Physics, 2007, 101, 053512.	2.5	46
78	Dynamic range of nanoresonators with random rough surfaces in the presence of thermomechanical and momentum exchange noise. Applied Physics Letters, 2007, 91, 021901.	3.3	9
79	Influence of random roughness on the adhesion between metal surfaces due to capillary condensation. Applied Physics Letters, 2007, 91, .	3.3	38
80	Surface roughness influence on the pull-in voltage of microswitches in presence of thermal and quantum vacuum fluctuations. Surface Science, 2006, 600, 1450-1455.	1.9	17
81	Light on the moth-eye corneal nipple array of butterflies. Proceedings of the Royal Society B: Biological Sciences, 2006, 273, 661-667.	2.6	483
82	Self-affine roughness influence on the Casimir effect. Journal of Applied Physics, 2005, 97, 126104.	2.5	15
83	Influence of anomalous roughness growth on the electrical conductivity of thin films. Physical Review B, 2005, 71, .	3.2	11
84	Pull-in characteristics of electromechanical switches in the presence of Casimir forces: Influence of self-affine surface roughness. Physical Review B, 2005, 72, .	3.2	47
85	Phase maps of microelectromechanical switches in the presence of electrostatic and Casimir forces. Physical Review B, 2005, 72, .	3.2	41
86	Wetting on rough surfaces. Acta Materialia, 2001, 49, 3533-3538.	7.9	109
87	Electrical conductivity and thin-film growth dynamics. Physical Review B, 2000, 61, 11109-11117.	3.2	54
88	Static and dynamic aspects of the demagnetizing factor in magnetic thin films with random rough surfaces. Journal of Applied Physics, 1999, 86, 2196-2199.	2.5	12
89	Roughness-induced fluid interface fluctuations due to polar and apolar interactions. Physical Review E, 1999, 59, 1259-1262.	2.1	1
90	Conductivity of Quantum Wires with Rough Boundaries. Physica Status Solidi (B): Basic Research, 1999, 211, 671-679.	1.5	2

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91	Fabrication of Co/Si nanowires by ultrahigh-vacuum scanning tunneling microscopy on hydrogen-passivated Si(100) surfaces. Journal of Applied Physics, 1999, 85, 1907-1910.	2.5	40
92	Interface Roughness Fractality Effects on the Electron Mobility in Semiconducting Quantum Wells. Physica Status Solidi (B): Basic Research, 1998, 209, 319-327.	1.5	11
93	Roughness effects on the critical fracture toughness of materials under uniaxial stress. Journal of Applied Physics, 1998, 83, 5212-5216.	2.5	2
94	Static and dynamic aspects of the rms local slope of growing random surfaces. Physical Review E, 1997, 56, 1254-1257.	2.1	69
95	Roughness effects on the thermal stability of thin films. Journal of Applied Physics, 1997, 81, 246-250.	2.5	8
96	Roughness effects on the electrostatic-image potential near a dielectric interface. Journal of Applied Physics, 1997, 82, 351-355.	2.5	20
97	Interface roughness effects in the giant magnetoresistance in magnetic multilayers. Journal of Applied Physics, 1997, 82, 3950-3956.	2.5	31
98	Surface-roughness fractality effects in electrical conductivity of single metallic and semiconducting films. Physical Review B, 1997, 56, 7726-7731.	3.2	97
99	EXPERIMENTAL OBSERVATIONS OF SELF-AFFINE SCALING AND KINETIC ROUGHENING AT SUB-MICRON LENGTHSCALES. International Journal of Modern Physics B, 1995, 09, 599-632.	2.0	265
100	Scanning Tunneling Microscopy Study of the Thick Film Limit of Kinetic Roughening. Physical Review Letters, 1994, 73, 3564-3567.	7.8	145
101	Roughness spectrum and surface width of self-affine fractal surfaces via the K-correlation model. Physical Review B, 1993, 48, 14472-14478.	3.2	289
102	Effect of the form of the height-height correlation function on diffuse x-ray scattering from a self-affine surface. Physical Review B, 1993, 48, 2873-2877.	3.2	127