Galina Klimchitskaya

List of Publications by Year
in descending order

253 papers	11,323 citations	19657 61 h-index	37204 96 g-index
258 all docs	258 docs citations	258 times ranked	1564 citing authors

#	Article	IF	Citations
1	The Casimir force between real materials: Experiment and theory. Reviews of Modern Physics, 2009, 81, 1827-1885.	45.6	638
2	Tests of new physics from precise measurements of the Casimir pressure between two gold-coated plates. Physical Review D, 2007, 75, .	4.7	367
3	Precise comparison of theory and new experiment for the Casimir force leads to stronger constraints on thermal quantum effects and long-range interactions. Annals of Physics, 2005, 318, 37-80.	2.8	358
4	Demonstration of the Lateral Casimir Force. Physical Review Letters, 2002, 88, 101801.	7.8	254
5	Novel constraints on light elementary particles and extra-dimensional physics from the Casimir effect. European Physical Journal C, 2007, 51, 963-975.	3.9	245
6	Improved tests of extra-dimensional physics and thermal quantum field theory from new Casimir force measurements. Physical Review D, 2003, 68, .	4.7	242
7	Casimir and van der Waals forces between two plates or a sphere (lens) above a plate made of real metals. Physical Review A, 2000, 61, .	2.5	201
8	Violation of the Nernst heat theorem in the theory of the thermal Casimir force between Drude metals. Physical Review A, 2004, 69, .	2.5	172
9	Casimir Force at Both Nonzero Temperature and Finite Conductivity. Physical Review Letters, 2000, 85, 503-506.	7.8	164
10	Control of the Casimir force by the modification of dielectric properties with light. Physical Review B, 2007, 76, .	3.2	161
11	Complete roughness and conductivity corrections for Casimir force measurement. Physical Review A, 1999, 60, 3487-3495.	2.5	156
12	Experimental and theoretical investigation of the lateral Casimir force between corrugated surfaces. Physical Review A, 2002, 66, .	2.5	149
13	Demonstration of optically modulated dispersion forces. Optics Express, 2007, 15, 4823.	3.4	149
14	Gradient of the Casimir force between Au surfaces of a sphere and a plate measured using an atomic force microscope in a frequency-shift technique. Physical Review B, 2012, 85, .	3.2	144
15	Theory confronts experiment in the Casimir force measurements: Quantification of errors and precision. Physical Review A, 2004, 69, .	2.5	126
16	Demonstration of the Difference in the Casimir Force for Samples with Different Charge-Carrier Densities. Physical Review Letters, 2006, 97, 170402.	7.8	125
17	Thermal quantum field theory and the Casimir interaction between dielectrics. Physical Review D, 2005, 72, .	4.7	122
18	Lateral Casimir force between sinusoidally corrugated surfaces: Asymmetric profiles, deviations from the proximity force approximation, and comparison with exact theory. Physical Review B, 2010, 81, .	3.2	122

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19	Lifshitz-type formulas for graphene and single-wall carbon nanotubes: van der Waals and Casimir interactions. Physical Review B, 2006, 74, .	3.2	121
20	Demonstration of the Casimir Force between Ferromagnetic Surfaces of a Ni-Coated Sphere and a Ni-Coated Plate. Physical Review Letters, 2013, 110, 137401.	7.8	121
21	Investigation of the Casimir force between metal and semiconductor test bodies. Physical Review A, 2005, 72, .	2.5	115
22	Correlation of energy and free energy for the thermal Casimir force between real metals. Physical Review A, 2002, 66, .	2.5	112
23	Experimental test for the conductivity properties from the Casimir force between metal and semiconductor. Physical Review A, 2006, 74, .	2.5	112
24	Surface-impedance approach solves problems with the thermal Casimir force between real metals. Physical Review A, 2003, 67, .	2.5	111
25	Constraints for hypothetical interactions from a recent demonstration of the Casimir force and some possible improvements. Physical Review D, 1998, 58, .	4.7	108
26	Casimir-Polder interaction between an atom and a cavity wall under the influence of real conditions. Physical Review A, 2004, 70, .	2.5	108
27	Van der Waals interaction between microparticle and uniaxial crystal with application to hydrogen atoms and multiwall carbon nanotubes. Physical Review B, 2005, 71, .	3.2	104
28	Thermodynamical aspects of the Casimir force between real metals at nonzero temperature. Physical Review A, 2002, 65, .	2.5	103
29	Casimir interaction between two magnetic metals in comparison with nonmagnetic test bodies. Physical Review B, 2013, 88, .	3.2	102
30	Dependences of the van der Waals atom-wall interaction on atomic and material properties. Physical Review A, 2005, 71, .	2.5	97
31	Measuring the Casimir force gradient from graphene on a SiO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>substrate. Physical Review B, 2013, 87, .	3.2	97
32	Conductivity of dielectric and thermal atomâ€“wall interaction. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 312002.	2.1	94
33	Demonstration of the asymmetric lateral Casimir force between corrugated surfaces in the nonadditive regime. Physical Review B, 2009, 80, .	3.2	90
34	Stronger constraints for nanometer scale Yukawa-type hypothetical interactions from the new measurement of the Casimir force. Physical Review D, 1999, 60, .	4.7	89
35	Investigation of the temperature dependence of the Casimir force between real metals. Physical Review A, 2001, 63, .	2.5	89
36	van der Waals interaction between a microparticle and a single-walled carbon nanotube. Physical Review B, 2007, 75, .	3.2	86

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37	Thermal Casimir-Polder interaction of different atoms with graphene. Physical Review A, 2012, 86, .	2.5	86
38	Measurement of the gradient of the Casimir force between a nonmagnetic gold sphere and a magnetic nickel plate. Physical Review B, 2012, 85, .	3.2	86
39	Experiment and theory in the Casimir effect. Contemporary Physics, 2006, 47, 131-144.	1.8	85
40	Comment on â€œTemperature dependence of the Casimir effectâ€: Physical Review E, 2006, 73, 028101.	2.1	85
41	Reduction of the Casimir Force from Indium Tin Oxide Film by UV Treatment. Physical Review Letters, 2011, 107, 090403.	7.8	84
42	THE CASIMIR FORCE BETWEEN PLATES WITH SMALL DEVIATIONS FROM PLANE PARALLEL GEOMETRY. International Journal of Modern Physics A, 1995, 10, 2661-2681.	1.5	83
43	Quantum field theoretical description for the reflectivity of graphene. Physical Review D, 2015, 91, .	4.7	79
44	Comment on â€œAnomalies in electrostatic calibrations for the measurement of the Casimir force in a sphere-plane geometryâ€: Physical Review A, 2009, 79, .	2.5	76
45	Present status of controversies regarding the thermal Casimir force. Journal of Physics A, 2006, 39, 6589-6600.	1.6	75
46	New constraints for non-Newtonian gravity in the nanometer range from the improved precision measurement of the Casimir force. Physical Review D, 2000, 62, .	4.7	74
47	Thermal Casimir effect in the interaction of graphene with dielectrics and metals. Physical Review B, 2012, 86, .	3.2	74
48	Theory of the Casimir interaction from graphene-coated substrates using the polarization tensor and comparison with experiment. Physical Review B, 2014, 89, .	3.2	74
49	Kramersâ€“Kronig relations for plasma-like permittivities and the Casimir force. Journal of Physics A: Mathematical and Theoretical, 2007, 40, F339-F346.	2.1	73
50	van der Waals and Casimir interactions between two graphene sheets. Physical Review B, 2013, 87, .	3.2	72
51	New Features of the Thermal Casimir Force at Small Separations. Physical Review Letters, 2003, 90, 160404.	7.8	70
52	Higher-order conductivity corrections to the Casimir force. Physical Review A, 2000, 62, .	2.5	69
53	Thermal Casimir effect in ideal metal rectangular boxes. European Physical Journal C, 2008, 57, 823-834.	3.9	68
54	Lifshitz theory of atom-wall interaction with applications to quantum reflection. Physical Review A, 2008, 78, .	2.5	67

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55	Advance and prospects in constraining the Yukawa-type corrections to Newtonian gravity from the Casimir effect. Physical Review D, 2010, 81, .	4.7	64
56	Two approaches for describing the Casimir interaction in graphene: Density-density correlation function versus polarization tensor. Physical Review B, 2014, 89, .	3.2	64
57	Casimir Force Between a Flat Plate and a Spherical Lens: Application to the Results of a New Experiment. Modern Physics Letters A, 1997, 12, 2613-2622.	1.2	63
58	Corrections to the Casimir force between plates with stochastic surfaces. Physics Letters, Section A: General, Atomic and Solid State Physics, 1995, 200, 95-102.	2.1	62
59	Thermal Casimirâ€"Polder force between an atom and a dielectric plate: thermodynamics and experiment. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 432001.	2.1	62
60	Modifying the Casimir force between indium tin oxide film and Au sphere. Physical Review B, 2012, 85, .	3.2	62
61	Experimental approaches to the difference in the Casimir force due to modifications in the optical properties of the boundary surface. Physical Review A, 2007, 75, .	2.5	61
62	Analytic approach to the thermal Casimir force between metal and dielectric. Annals of Physics, 2008, 323, 291-316.	2.8	61
63	Surface roughness contribution to the Casimir interaction between an isolated atom and a cavity wall. Physical Review A, 2000, 61, .	2.5	60
64	CASIMIR EFFECT AS A TEST FOR THERMAL CORRECTIONS AND HYPOTHETICAL LONG-RANGE INTERACTIONS. International Journal of Modern Physics A, 2005, 20, 2205-2221.	1.5	59
65	Thermal correction to the Casimir force, radiative heat transfer, and an experiment. European Physical Journal C, 2007, 52, 701-720.	3.9	59
66	THE CORRECTIONS TO THE CASIMIR FORCES FOR CONFIGURATIONS USED IN EXPERIMENTS: THE SPHERICAL LENS ABOVE THE PLANE AND TWO CROSSED CYLINDERS. International Journal of Modern Physics A, 1996, 11, 3723-3742.	1.5	55
67	Universal behaviour of dispersion forces between two dielectric plates in the low-temperature limit. Journal of Physics A, 2006, 39, 6495-6499.	1.6	55
68	Perturbation approach to the Casimir force between two bodies made of different real metals. Physical Review A, 2002, 65, .	2.5	52
69	RECENT RESULTS ON THERMAL CASIMIR FORCE BETWEEN DIELECTRICS AND RELATED PROBLEMS. International Journal of Modern Physics A, 2006, 21, 5007-5042.	1.5	52
70	Corrections to the van der Waals forces in application to atomic force microscopy. Surface Science, 1995, 328, 129-134.	1.9	51
71	Impact of surface imperfections on the Casimir force for lenses of centimeter-size curvature radii. Physical Review B, 2011, 83, .	3.2	51
72	CASIMIR FORCE UNDER THE INFLUENCE OF REAL CONDITIONS. International Journal of Modern Physics A, 2001, 16, 3291-3308.	1.5	49

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73	Pulsating Casimir force. Journal of Physics A: Mathematical and Theoretical, 2007, 40, F841-F847.	2.1	48
74	Constraints on corrections to Newtonian gravity from two recent measurements of the Casimir interaction between metallic surfaces. Physical Review D, 2013, 87, .	4.7	48
75	Thermal corrections in the Casimir interaction between a metal and dielectric. Physical Review A, 2005, 72, .	2.5	47
76	Generalized plasma-like permittivity and thermal Casimir force between real metals. Journal of Physics A: Mathematical and Theoretical, 2007, 40, 13485-13499.	2.1	47
77	CONTROL OF THE CASIMIR FORCE USING SEMICONDUCTOR TEST BODIES. International Journal of Modern Physics B, 2011, 25, 171-230.	2.0	47
78	Observability of thermal effects in the Casimir interaction from graphene-coated substrates. Physical Review A, 2014, 89, .	2.5	47
79	Stronger constraints on non-Newtonian gravity from the Casimir effect. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164054.	2.1	46
80	Casimirâ€“Polder interaction between an atom and a cylinder with application to nanosystems. Journal of Physics A, 2006, 39, 6481-6484.	1.6	45
81	Comment on â€œEffects of spatial dispersion on electromagnetic surface modes and on modes associated with a gap between two half spacesâ€• Physical Review B, 2007, 75, .	3.2	44
82	Application of the proximity force approximation to gravitational and Yukawa-type forces. Physical Review D, 2009, 79, .	4.7	44
83	WHY SCREENING EFFECTS DO NOT INFLUENCE THE CASIMIR FORCE. International Journal of Modern Physics A, 2009, 24, 1721-1742.	1.5	42
84	Reply to â€œComment on â€˜Surface-impedance approach solves problems with the thermal Casimir force between real metalsâ€™ â€• Physical Review A, 2004, 70, .	2.5	41
85	Precise Determination of the Casimir Force and First Realization of a â€œCasimir Lessâ€•Experiment. Journal of Low Temperature Physics, 2004, 135, 63-74.	1.4	41
86	Origin of large thermal effect in the Casimir interaction between two graphene sheets. Physical Review B, 2015, 91, .	3.2	41
87	Rigorous approach to the comparison between experiment and theory in Casimir force measurements. Journal of Physics A, 2006, 39, 6485-6493.	1.6	39
88	Thermal Casimir interaction between two magnetodielectric plates. Physical Review B, 2010, 81, .	3.2	39
89	Comparison of hydrodynamic and Dirac models of dispersion interaction between graphene and H,<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mtext>He</mml:mtext></mml:mrow><mml:mo>â^—</mml:mo></mml:m or Na atoms. Physical Review B, 2010, 82, .	3.2	39
90	Creation of quasiparticles in graphene by a time-dependent electric field. Physical Review D, 2013, 87, .	4.7	39

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91	Measurement of the Casimir Force between 0.2 and 8 Î¼m: Experimental Procedures and Comparison with Theory. Universe, 2021, 7, 93.	2.5	39
92	CONSTRAINTS ON YUKAWA-TYPE HYPOTHETICAL INTERACTIONS FROM RECENT CASIMIR FORCE MEASUREMENTS. International Journal of Modern Physics A, 2002, 17, 4143-4152.	1.5	38
93	van der Waals and Casimir interactions between atoms and carbon nanotubes. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164012.	2.1	38
94	Comment on â€œAnalytical and numerical verification of the Nernst theorem for metalsâ€. Physical Review E, 2008, 77, 023101; discussion 023102.	2.1	38
95	Control of the lateral Casimir force between corrugated surfaces. Physical Review A, 2004, 69, .	2.5	37
96	Problems and paradoxes of the Lifshitz theory. Journal of Physics: Conference Series, 2009, 161, 012002.	0.4	37
97	Comment on â€œLateral Casimir Force beyond the Proximity-Force Approximationâ€. Physical Review Letters, 2007, 98, 068901; author reply 068902.	7.8	36
98	Comment on â€œPrecision measurement of the Casimir-Lifshitz force in a fluidâ€. Physical Review A, 2008, 77, .	2.5	36
99	Constraints on non-Newtonian gravity from measuring the Casimir force in a configuration with nanoscale rectangular corrugations. Physical Review D, 2011, 83, .	4.7	36
100	Reducing detrimental electrostatic effects in Casimir-force measurements and Casimir-force-based microdevices. Physical Review A, 2018, 97, .	2.5	36
101	Examining the Casimir puzzle with an upgraded AFM-based technique and advanced surface cleaning. Physical Review B, 2019, 100, .	3.2	36
102	PROBLEMS IN THE LIFSHITZ THEORY OF ATOM-WALL INTERACTION. International Journal of Modern Physics A, 2009, 24, 1777-1788.	1.5	35
103	Precision measurements of the gradient of the Casimir force between ultraclean metallic surfaces at larger separations. Physical Review A, 2019, 100, .	2.5	35
104	PERTURBATION EXPANSION OF THE CONDUCTIVITY CORRECTION TO THE CASIMIR FORCE. International Journal of Modern Physics A, 2001, 16, 3103-3115.	1.5	34
105	Dependence of the Casimirâ€"Polder interaction between an atom and a cavity wall on atomic and material properties. Journal of Physics A, 2006, 39, 6583-6587.	1.6	34
106	Low-temperature behavior of the Casimir free energy and entropy of metallic films. Physical Review A, 2017, 95, .	2.5	33
107	OBSERVATION OF THE THERMAL CASIMIR FORCE IS OPEN TO QUESTION. International Journal of Modern Physics A, 2011, 26, 3918-3929.	1.5	32
108	Influence of the chemical potential on the Casimir-Polder interaction between an atom and gapped graphene or a graphene-coated substrate. Physical Review A, 2018, 97, .	2.5	32

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109	Thermal Casimir effect in closed Friedmann universe revisited. Physical Review D, 2011, 83, .	4.7	30
110	Surface impedance and the Casimir force. Physical Review A, 2001, 65, .	2.5	29
111	Impact of graphene coating on the atom-plate interaction. Physical Review A, 2014, 89, .	2.5	29
112	Analytic results for the Casimir free energy between ferromagnetic metals. Physical Review A, 2015, 91, .	2.5	28
113	Conductivity of pure graphene: Theoretical approach using the polarization tensor. Physical Review B, 2016, 93, .	3.2	28
114	Impact of magnetic properties on atom-wall interactions. Physical Review A, 2009, 79, .	2.5	27
115	Theory of reflectivity properties of graphene-coated material plates. Physical Review B, 2015, 92, .	3.2	27
116	Theoretical and experimental investigation of the forceâ€"distance relation for an atomic force microscope with a pyramidal tip. Surface Science, 2000, 453, 75-82.	1.9	25
117	THE CASIMIR EFFECT AND THE FOUNDATIONS OF STATISTICAL PHYSICS. International Journal of Modern Physics A, 2010, 25, 2302-2312.	1.5	25
118	Constraints on the parameters of an axion from measurements of the thermal Casimir-Polder force. Physical Review D, 2014, 89, .	4.7	25
119	Constraining axionâ€"nucleon coupling constants from measurements of effective Casimir pressure by means of micromachined oscillator. European Physical Journal C, 2014, 74, 1.	3.9	25
120	Improved constraints on the coupling constants of axion-like particles to nucleons from recent Casimir-less experiment. European Physical Journal C, 2015, 75, 1.	3.9	25
121	Demonstration of an Unusual Thermal Effect in the Casimir Force from Graphene. Physical Review Letters, 2021, 126, 206802.	7.8	25
122	Problems in the theory of the thermal Casimir force between dielectrics and semiconductors. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164032.	2.1	24
123	COMPARISON BETWEEN EXPERIMENT AND THEORY FOR THE THERMAL CASIMIR FORCE. International Journal of Modern Physics A, 2012, 27, 1260012.	1.5	24
124	Classical Casimir-Polder force between polarizable microparticles and thin films including graphene. Physical Review A, 2014, 89, .	2.5	24
125	Comparison of hydrodynamic model of graphene with recent experiment on measuring the Casimir interaction. Physical Review B, 2015, 91, .	3.2	24
126	Prospects for Searching Thermal Effects, Non-Newtonian Gravity and Axion-Like Particles: Cannex Test of the Quantum Vacuum. Symmetry, 2019, 11, 407.	2.2	24

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127	Experimental and theoretical investigation of the thermal effect in the Casimir interaction from graphene. Physical Review B, 2021, 104, .	3.2	24
128	Classical limit of the Casimir interaction for thin films with applications to graphene. Physical Review B, 2014, 89, .	3.2	23
129	Casimir entropy for magnetodielectrics. Journal of Physics Condensed Matter, 2015, 27, 214007.	1.8	23
130	Constraints on axionlike particles and non-Newtonian gravity from measuring the difference of Casimir forces. Physical Review D, 2017, 95, .	4.7	23
131	An alternative response to the off-shell quantum fluctuations: a step forward in resolution of the Casimir puzzle. European Physical Journal C, 2020, 80, 1.	3.9	23
132	On the validity of constraints on light elementary particles andÂextra-dimensional physics from the Casimir effect. European Physical Journal C, 2010, 68, 223-226.	3.9	22
133	Exact Casimirâ€"Polder potential between a particle and an ideal metal cylindrical shell and the proximity force approximation. European Physical Journal C, 2011, 71, 1.	3.9	22
134	Constraints on axion-nucleon coupling constants from measuring the Casimir force between corrugated surfaces. Physical Review D, 2014, 90, .	4.7	22
135	Casimir free energy of metallic films: Discriminating between Drude and plasma model approaches. Physical Review A, 2015, 92, .	2.5	22
136	Casimir free energy of dielectric films: classical limit, low-temperature behavior and control. Journal of Physics Condensed Matter, 2017, 29, 275701.	1.8	22
137	How to observe the giant thermal effect in the Casimir force for graphene systems. Physical Review A, 2017, 96, .	2.5	22
138	Reflectivity properties of graphene with a nonzero mass-gap parameter. Physical Review A, 2016, 93, .	2.5	21
139	Conductivity of graphene in the framework of Dirac model: Interplay between nonzero mass gap and chemical potential. Physical Review B, 2017, 96, .	3.2	21
140	Casimir and Casimir-Polder Forces in Graphene Systems: Quantum Field Theoretical Description and Thermodynamics. Universe, 2020, 6, 150.	2.5	21
141	Bordag, Geyer, Klimchitskaya, and Mostepanenko Reply:. Physical Review Letters, 2001, 87, .	7.8	20
142	Quantum electrodynamic approach to the conductivity of gapped graphene. Physical Review B, 2016, 94, .	3.2	20
143	Thermal effect in the Casimir force for graphene and graphene-coated substrates: Impact of nonzero mass gap and chemical potential. Physical Review B, 2017, 96, .	3.2	20
144	Impact of magnetic nanoparticles on the Casimir pressure in three-layer systems. Physical Review B, 2019, 99, .	3.2	20

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145	Possibility of measuring thermal effects in the Casimir force. Physical Review A, 2010, 82, .	2.5	19
146	Casimir interaction at liquid nitrogen temperature: Comparison between experiment and theory. Physical Review B, 2013, 88, .	3.2	19
147	Stronger constraints on an axion from measuring the Casimir interaction by means of a dynamic atomic force microscope. Physical Review D, 2014, 89, .	4.7	19
148	Nernst heat theorem for the thermal Casimir interaction between two graphene sheets. Physical Review A, 2016, 94, .	2.5	19
149	Casimir pressure between metallic plates out of thermal equilibrium: Proposed test for the relaxation properties of free electrons. Physical Review A, 2019, 100, .	2.5	19
150	Fluctuation-induced free energy of thin peptide films. Physical Review E, 2019, 99, 022410.	2.1	19
151	Recent breakthrough and outlook in constraining the non-Newtonian gravity and axion-like particles from Casimir physics. European Physical Journal C, 2017, 77, 1.	3.9	17
152	Possibility of measuring the thermal Casimir interaction between a plate and a cylinder attached to a micromachined oscillator. Physical Review A, 2010, 82, .	2.5	16
153	Comment on â€œCasimir Force andInÂSituSurface Potential Measurements on Nanomembranesâ€. Physical Review Letters, 2012, 109, 199701.	7.8	16
154	Casimir free energy and pressure for magnetic metal films. Physical Review B, 2016, 94, .	3.2	16
155	Optical Chopper Driven by the Casimir Force. Physical Review Applied, 2018, 10, .	3.8	16
156	Constraints on non-Newtonian gravity and axionlike particles from measuring the Casimir force in nanometer separation range. Physical Review D, 2020, 101, .	4.7	16
157	New constraints on Yukawa-type corrections to Newtonian gravity at short separations. Gravitation and Cosmology, 2014, 20, 3-9.	1.1	15
158	Impact of chemical potential on the reflectance of graphene in the infrared and microwave domains. Physical Review A, 2018, 98, .	2.5	15
159	Quantum field theoretical description of the Casimir effect between two real graphene sheets and thermodynamics. Physical Review D, 2020, 102, .	4.7	15
160	Nernst heat theorem for an atom interacting with graphene: Dirac model with nonzero energy gap and chemical potential. Physical Review D, 2020, 101, .	4.7	15
161	Lateral projection as a possible explanation of the nontrivial boundary dependence of the Casimir force. Physical Review A, 2000, 63, .	2.5	14
162	Constraints on non-Newtonian gravity and light elementary particles from measurements of the Casimir force by means of a dynamic atomic force microscope. Physical Review D, 2012, 86, .	4.7	14

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163	Kramers-Kronig relations and causality conditions for graphene in the framework of the Dirac model. Physical Review D, 2018, 97, .	4.7	14
164	The State of the Art in Constraining Axion-to-Nucleon Coupling and Non-Newtonian Gravity from Laboratory Experiments. Universe, 2020, 6, 147.	2.5	14
165	Comment on â€œThermal Lifshitz Force between an Atom and a Conductor with a Small Density of Carriersâ€• Physical Review Letters, 2009, 102, 189301; author reply 189302.	7.8	13
166	Casimir and van der Waals energy of anisotropic atomically thin metallic films. Physical Review B, 2015, 92, .	3.2	13
167	Quantum field theory of the Casimir force for graphene. International Journal of Modern Physics A, 2016, 31, 1641026.	1.5	13
168	Optical properties of dielectric plates coated with gapped graphene. Physical Review B, 2017, 95, .	3.2	13
169	Low-temperature behavior of the Casimir-Polder free energy and entropy for an atom interacting with graphene. Physical Review A, 2018, 98, .	2.5	13
170	Recent measurements of the Casimir force: Comparison between experiment and theory. Modern Physics Letters A, 2020, 35, 2040007.	1.2	13
171	Theory-experiment comparison for the Casimir force between metallic test bodies: A spatially nonlocal dielectric response. Physical Review A, 2022, 105, .	2.5	13
172	THERMAL CASIMIR FORCE BETWEEN MAGNETIC MATERIALS. International Journal of Modern Physics A, 2010, 25, 2293-2301.	1.5	12
173	OBSERVATION OF REDUCTION IN CASIMIR FORCE WITHOUT CHANGE OF DIELECTRIC PERMITTIVITY. International Journal of Modern Physics A, 2012, 27, 1260001.	1.5	12
174	Constraining axion coupling constants from measuring the Casimir interaction between polarized test bodies. Physical Review D, 2016, 94, .	4.7	12
175	Characteristic properties of the Casimir free energy for metal films deposited on metallic plates. Physical Review A, 2016, 93, .	2.5	12
176	Casimir entropy and nonlocal response functions to the off-shell quantum fluctuations. Physical Review D, 2021, 103, .	4.7	12
177	Casimir effect for magnetic media: Spatially nonlocal response to the off-shell quantum fluctuations. Physical Review D, 2021, 104, .	4.7	12
178	Comment on â€œContribution of Drifting Carriers to the Casimir-Lifshitz and Casimir-Polder Interactions with Semiconductor Materialsâ€• Physical Review Letters, 2009, 102, 189303; author reply 189304.	7.8	11
179	Strengthening constraints on Yukawa-type corrections to Newtonian gravity from measuring the Casimir force between a cylinder and a plate. Physical Review D, 2010, 82, .	4.7	11
180	Casimir force between a microfabricated elliptic cylinder and a plate. Physical Review A, 2011, 84, .	2.5	11

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181	Relativistic calculations of transition probabilities in two-electron multicharged ions. Journal of Physics B: Atomic and Molecular Physics, 1974, 7, 2471-2475.	1.6	10
182	NEW CONSTRAINTS ON YUKAWA-TYPE INTERACTIONS FROM THE CASIMIR EFFECT. International Journal of Modern Physics A, 2012, 27, 1260015.	1.5	10
183	Constraints on the axion and corrections to newtonian gravity from the Casimir effect. Gravitation and Cosmology, 2015, 21, 1-12.	1.1	10
184	Description of force surfaces in atomic force microscopy with allowance for the mobility of the lattice atoms. Technical Physics, 1999, 44, 970-976.	0.7	9
185	WHAT IS THE TEMPERATURE DEPENDENCE OF THE CASIMIR FORCE BETWEEN REAL METALS?. International Journal of Modern Physics A, 2002, 17, 751-760.	1.5	9
186	How to modify the van der Waals and Casimir forces without change of the dielectric permittivity. Journal of Physics Condensed Matter, 2012, 24, 424202.	1.8	9
187	Universal experimental test for the role of free charge carriers in the thermal Casimir effect within a micrometer separation range. Physical Review A, 2017, 95, .	2.5	9
188	Whether an Enormously Large Energy Density of the Quantum Vacuum Is Catastrophic. Symmetry, 2019, 11, 314.	2.2	9
189	Constraints on Theoretical Predictions beyond the Standard Model from the Casimir Effect and Some Other Tabletop Physics. Universe, 2021, 7, 47.	2.5	9
190	Dark Matter Axions, Non-Newtonian Gravity and Constraints on Them from Recent Measurements of the Casimir Force in the Micrometer Separation Range. Universe, 2021, 7, 343.	2.5	9
191	Graphene may help to solve the Casimir conundrum in indium tin oxide systems. Physical Review B, 2018, 98, .	3.2	8
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