

Vladimir M Mostepanenko

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1706218/publications.pdf>

Version: 2024-02-01

267
papers

10,817
citations

20817

60
h-index

40979

93
g-index

274
all docs

274
docs citations

274
times ranked

1618
citing authors

#	ARTICLE	IF	CITATIONS
1	Theory-experiment comparison for the Casimir force between metallic test bodies: A spatially nonlocal dielectric response. <i>Physical Review A</i> , 2022, 105, .	2.5	13
2	Editorial to the Special Issue "Advances in the Physics of Stars" In Memory of Prof. Yuri N. Gnedin. <i>Universe</i> , 2022, 8, 239.	2.5	0
3	Casimir-Polder attraction and repulsion between nanoparticles and graphene in out-of-thermal-equilibrium conditions. <i>Physical Review B</i> , 2022, 105, .	3.2	6
4	Casimir-Polder Interaction of an Atom with a Cavity Wall Made of Phase-Change Material out of Thermal Equilibrium. <i>Atoms</i> , 2021, 9, 4.	1.6	7
5	Measurement of the Casimir Force between 0.2 and 8 $\frac{1}{4}$ μ m: Experimental Procedures and Comparison with Theory. <i>Universe</i> , 2021, 7, 93.	2.5	39
6	Casimir Puzzle and Casimir Conundrum: Discovery and Search for Resolution. <i>Universe</i> , 2021, 7, 84.	2.5	38
7	Casimir entropy and nonlocal response functions to the off-shell quantum fluctuations. <i>Physical Review D</i> , 2021, 103, .	4.7	12
8	Demonstration of an Unusual Thermal Effect in the Casimir Force from Graphene. <i>Physical Review Letters</i> , 2021, 126, 206802.	7.8	25
9	Casimir pressure in peptide films on metallic substrates: Change of sign via graphene coating. <i>Physical Review B</i> , 2021, 103, .	3.2	4
10	Experimental and theoretical investigation of the thermal effect in the Casimir interaction from graphene. <i>Physical Review B</i> , 2021, 104, .	3.2	24
11	Editorial to the Special Issue "Selected Papers from the 17th Russian Gravitational Conference" International Conference on Gravitation, Cosmology and Astrophysics (RUSGRAV-17). <i>Universe</i> , 2021, 7, 296.	2.5	0
12	Dark Matter Axions, Non-Newtonian Gravity and Constraints on Them from Recent Measurements of the Casimir Force in the Micrometer Separation Range. <i>Universe</i> , 2021, 7, 343.	2.5	9
13	Casimir effect for magnetic media: Spatially nonlocal response to the off-shell quantum fluctuations. <i>Physical Review D</i> , 2021, 104, .	4.7	12
14	Casimir and Casimir-Polder Forces in Graphene Systems: Quantum Field Theoretical Description and Thermodynamics. <i>Universe</i> , 2020, 6, 150.	2.5	21
15	The State of the Art in Constraining Axion-to-Nucleon Coupling and Non-Newtonian Gravity from Laboratory Experiments. <i>Universe</i> , 2020, 6, 147.	2.5	14
16	Effect of increased stability of peptide-based coatings in the Casimir regime via nanoparticle doping. <i>Physical Review B</i> , 2020, 102, .	3.2	7
17	An alternative response to the off-shell quantum fluctuations: a step forward in resolution of the Casimir puzzle. <i>European Physical Journal C</i> , 2020, 80, 1.	3.9	23
18	Quantum field theoretical description of the Casimir effect between two real graphene sheets and thermodynamics. <i>Physical Review D</i> , 2020, 102, .	4.7	15

#	ARTICLE	IF	CITATIONS
19	Nonequilibrium effects in the Casimir force between two similar metallic plates kept at different temperatures. <i>Physical Review A</i> , 2020, 101, .	2.5	8
20	Nernst heat theorem for an atom interacting with graphene: Dirac model with nonzero energy gap and chemical potential. <i>Physical Review D</i> , 2020, 101, .	4.7	15
21	Constraints on non-Newtonian gravity and axionlike particles from measuring the Casimir force in nanometer separation range. <i>Physical Review D</i> , 2020, 101, .	4.7	16
22	Some remarks on axion dark matter, dark energy and energy of the quantum vacuum. <i>International Journal of Modern Physics A</i> , 2020, 35, 2040036.	1.5	1
23	Casimir force, causality, and the Gurzhi model. <i>Physical Review B</i> , 2020, 101, .	3.2	3
24	Nernst heat theorem for the Casimir-Polder interaction between a magnetizable atom and ferromagnetic dielectric plate. <i>Modern Physics Letters A</i> , 2020, 35, 2040010.	1.2	6
25	Recent measurements of the Casimir force: Comparison between experiment and theory. <i>Modern Physics Letters A</i> , 2020, 35, 2040007.	1.2	13
26	Change of sign in the Casimir interaction of peptide films deposited on a dielectric substrate. <i>Modern Physics Letters A</i> , 2020, 35, 2040020.	1.2	12
27	Role of electromagnetic fluctuations in organic electronics. <i>Journal of Electronic Science and Technology</i> , 2020, 18, 100023.	3.6	5
28	Effect of agglomeration of magnetic nanoparticles on the Casimir pressure through a ferrofluid. <i>Physical Review B</i> , 2019, 100, .	3.2	8
29	Examining the Casimir puzzle with an upgraded AFM-based technique and advanced surface cleaning. <i>Physical Review B</i> , 2019, 100, .	3.2	36
30	Casimir pressure between metallic plates out of thermal equilibrium: Proposed test for the relaxation properties of free electrons. <i>Physical Review A</i> , 2019, 100, .	2.5	19
31	Dispersion Forces between Metal and Dielectric Plates Separated by a Magnetic Fluid. <i>Technical Physics</i> , 2019, 64, 1260-1266.	0.7	5
32	Impact of magnetic nanoparticles on the Casimir pressure in three-layer systems. <i>Physical Review B</i> , 2019, 99, .	3.2	20
33	Whether an Enormously Large Energy Density of the Quantum Vacuum Is Catastrophic. <i>Symmetry</i> , 2019, 11, 314.	2.2	9
34	Prospects for Searching Thermal Effects, Non-Newtonian Gravity and Axion-Like Particles: Cannex Test of the Quantum Vacuum. <i>Symmetry</i> , 2019, 11, 407.	2.2	24
35	Fluctuation-induced free energy of thin peptide films. <i>Physical Review E</i> , 2019, 99, 022410.	2.1	19
36	Reflectance of graphene-coated dielectric plates in the framework of Dirac model: joint action of energy gap and chemical potential. <i>Journal of Physics Condensed Matter</i> , 2019, 31, 505003.	1.8	2

#	ARTICLE	IF	CITATIONS
37	Precision measurements of the gradient of the Casimir force between ultraclean metallic surfaces at larger separations. <i>Physical Review A</i> , 2019, 100, .	2.5	35
38	Reducing detrimental electrostatic effects in Casimir-force measurements and Casimir-force-based microdevices. <i>Physical Review A</i> , 2018, 97, .	2.5	36
39	Kramers-Kronig relations and causality conditions for graphene in the framework of the Dirac model. <i>Physical Review D</i> , 2018, 97, .	4.7	14
40	Nonperturbative theory of atom-surface interaction: corrections at short separations. <i>Journal of Physics Condensed Matter</i> , 2018, 30, 055003.	1.8	7
41	Influence of the chemical potential on the Casimir-Polder interaction between an atom and gapped graphene or a graphene-coated substrate. <i>Physical Review A</i> , 2018, 97, .	2.5	32
42	Impact of Magnetic Particles on Dispersion Forces in Ferrofluid-Based Microdevices. , 2018, , .		7
43	Contribution of Electromagnetic Fluctuations to the Free Energy of Protein Films. , 2018, , .		4
44	Low-temperature behavior of the Casimir-Polder free energy and entropy for an atom interacting with graphene. <i>Physical Review A</i> , 2018, 98, .	2.5	13
45	Graphene may help to solve the Casimir conundrum in indium tin oxide systems. <i>Physical Review B</i> , 2018, 98, .	3.2	8
46	Impact of chemical potential on the reflectance of graphene in the infrared and microwave domains. <i>Physical Review A</i> , 2018, 98, .	2.5	15
47	Optical Chopper Driven by the Casimir Force. <i>Physical Review Applied</i> , 2018, 10, .	3.8	16
48	Reflective properties of graphene for optical and near-infrared wavelength range. , 2018, , .		0
49	Maximum reflectance and transmittance of films coated with gapped graphene in the context of the Dirac model. <i>Physical Review A</i> , 2018, 97, .	2.5	4
50	The Casimir-Operated Microdevice for Application in Optical Networks. <i>Lecture Notes in Computer Science</i> , 2018, , 613-623.	1.3	0
51	Optical properties of dielectric plates coated with gapped graphene. <i>Physical Review B</i> , 2017, 95, .	3.2	13
52	Casimir free energy of dielectric films: classical limit, low-temperature behavior and control. <i>Journal of Physics Condensed Matter</i> , 2017, 29, 275701.	1.8	22
53	Low-temperature behavior of the Casimir free energy and entropy of metallic films. <i>Physical Review A</i> , 2017, 95, .	2.5	33
54	Thermal effect in the Casimir force for graphene and graphene-coated substrates: Impact of nonzero mass gap and chemical potential. <i>Physical Review B</i> , 2017, 96, .	3.2	20

#	ARTICLE	IF	CITATIONS
55	Universal experimental test for the role of free charge carriers in the thermal Casimir effect within a micrometer separation range. <i>Physical Review A</i> , 2017, 95, .	2.5	9
56	How to observe the giant thermal effect in the Casimir force for graphene systems. <i>Physical Review A</i> , 2017, 96, .	2.5	22
57	Constraints on axionlike particles and non-Newtonian gravity from measuring the difference of Casimir forces. <i>Physical Review D</i> , 2017, 95, .	4.7	23
58	Conductivity of graphene in the framework of Dirac model: Interplay between nonzero mass gap and chemical potential. <i>Physical Review B</i> , 2017, 96, .	3.2	21
59	Comment on "Lifshitz-Matsubara sum formula for the Casimir pressure between magnetic metallic mirrors". <i>Physical Review E</i> , 2016, 94, 026101.	2.1	6
60	Nernst heat theorem for the thermal Casimir interaction between two graphene sheets. <i>Physical Review A</i> , 2016, 94, .	2.5	19
61	Constraining axion coupling constants from measuring the Casimir interaction between polarized test bodies. <i>Physical Review D</i> , 2016, 94, .	4.7	12
62	Casimir free energy and pressure for magnetic metal films. <i>Physical Review B</i> , 2016, 94, .	3.2	16
63	Reflectivity properties of graphene with a nonzero mass-gap parameter. <i>Physical Review A</i> , 2016, 93, .	2.5	21
64	Conductivity of pure graphene: Theoretical approach using the polarization tensor. <i>Physical Review B</i> , 2016, 93, .	3.2	28
65	Characteristic properties of the Casimir free energy for metal films deposited on metallic plates. <i>Physical Review A</i> , 2016, 93, .	2.5	12
66	Quantum electrodynamic approach to the conductivity of gapped graphene. <i>Physical Review B</i> , 2016, 94, .	3.2	20
67	Progress in constraining axion and non-Newtonian gravity from the Casimir effect. <i>International Journal of Modern Physics A</i> , 2016, 31, 1641020.	1.5	7
68	A few remarks on the relationship between elementary particle physics, gravitation and cosmology. <i>Gravitation and Cosmology</i> , 2016, 22, 116-121.	1.1	3
69	Quantum Field Theoretical Approach to the Electrical Conductivity of Graphene. <i>Lecture Notes in Computer Science</i> , 2016, , 699-707.	1.3	0
70	Laboratory and astrophysical constraints on an axion. , 2016, , .		0
71	Special features of the thermal Casimir effect across a uniaxial anisotropic film. <i>Physical Review A</i> , 2015, 92, .	2.5	5
72	Casimir free energy of metallic films: Discriminating between Drude and plasma model approaches. <i>Physical Review A</i> , 2015, 92, .	2.5	22

#	ARTICLE	IF	CITATIONS
73	Origin of large thermal effect in the Casimir interaction between two graphene sheets. <i>Physical Review B</i> , 2015, 91, .	3.2	41
74	Casimir and van der Waals energy of anisotropic atomically thin metallic films. <i>Physical Review B</i> , 2015, 92, .	3.2	13
75	Improved constraints on the coupling constants of axion-like particles to nucleons from recent Casimir-less experiment. <i>European Physical Journal C</i> , 2015, 75, 1.	3.9	25
76	Comparison of hydrodynamic model of graphene with recent experiment on measuring the Casimir interaction. <i>Physical Review B</i> , 2015, 91, .	3.2	24
77	Quantum field theoretical description for the reflectivity of graphene. <i>Physical Review D</i> , 2015, 91, .	4.7	79
78	Constraints on the axion and corrections to newtonian gravity from the Casimir effect. <i>Gravitation and Cosmology</i> , 2015, 21, 1-12.	1.1	10
79	How to confirm and exclude different models of material properties in the Casimir effect. <i>Journal of Physics Condensed Matter</i> , 2015, 27, 214013.	1.8	17
80	Classical Casimir-Polder force between polarizable microparticles and thin films including graphene. <i>Physical Review A</i> , 2014, 89, .	2.5	24
81	Two approaches for describing the Casimir interaction in graphene: Density-density correlation function versus polarization tensor. <i>Physical Review B</i> , 2014, 89, .	3.2	64
82	Classical limit of the Casimir interaction for thin films with applications to graphene. <i>Physical Review B</i> , 2014, 89, .	3.2	23
83	Constraints on axion-nucleon coupling constants from measuring the Casimir force between corrugated surfaces. <i>Physical Review D</i> , 2014, 90, .	4.7	22
84	Stronger constraints on an axion from measuring the Casimir interaction by means of a dynamic atomic force microscope. <i>Physical Review D</i> , 2014, 89, .	4.7	19
85	Theory of the Casimir interaction from graphene-coated substrates using the polarization tensor and comparison with experiment. <i>Physical Review B</i> , 2014, 89, .	3.2	74
86	Impact of graphene coating on the atom-plate interaction. <i>Physical Review A</i> , 2014, 89, .	2.5	29
87	Constraints on the parameters of an axion from measurements of the thermal Casimir-Polder force. <i>Physical Review D</i> , 2014, 89, .	4.7	25
88	Reflectivity Properties of Graphene and Graphene-Coated Substrates. <i>Lecture Notes in Computer Science</i> , 2014, , 451-458.	1.3	5
89	Observability of thermal effects in the Casimir interaction from graphene-coated substrates. <i>Physical Review A</i> , 2014, 89, .	2.5	47
90	New constraints on Yukawa-type corrections to Newtonian gravity at short separations. <i>Gravitation and Cosmology</i> , 2014, 20, 3-9.	1.1	15

#	ARTICLE	IF	CITATIONS
91	Andrei Anatolyevich Grib, on the 75th birthday. Gravitation and Cosmology, 2014, 20, 1-2.	1.1	1
92	Constraining axion-nucleon coupling constants from measurements of effective Casimir pressure by means of micromachined oscillator. European Physical Journal C, 2014, 74, 1.	3.9	25
93	Measuring the Casimir force gradient from graphene on a SiO ₂ substrate. Physical Review B, 2013, 87, .	3.2	97
94	Casimir interaction between two magnetic metals in comparison with nonmagnetic test bodies. Physical Review B, 2013, 88, .	3.2	102
95	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
96	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
97	Casimir interaction at liquid nitrogen temperature: Comparison between experiment and theory. Physical Review B, 2013, 88, .	3.2	19
98	van der Waals and Casimir interactions between two graphene sheets. Physical Review B, 2013, 87, .	3.2	72
99	Creation of quasiparticles in graphene by a time-dependent electric field. Physical Review D, 2013, 87, .	4.7	39
100	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
101	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
102	Modifying the Casimir force between indium tin oxide film and Au sphere. Physical Review B, 2012, 85, .	3.2	62
103	COMPARISON BETWEEN EXPERIMENT AND THEORY FOR THE THERMAL CASIMIR FORCE. International Journal of Modern Physics A, 2012, 27, 1260012.	1.5	24
104	OBSERVATION OF REDUCTION IN CASIMIR FORCE WITHOUT CHANGE OF DIELECTRIC PERMITTIVITY. International Journal of Modern Physics A, 2012, 27, 1260001.	1.5	12
105	NEW CONSTRAINTS ON YUKAWA-TYPE INTERACTIONS FROM THE CASIMIR EFFECT. International Journal of Modern Physics A, 2012, 27, 1260015.	1.5	10
106	OBSERVATION OF REDUCTION IN CASIMIR FORCE WITHOUT CHANGE OF DIELECTRIC PERMITTIVITY. International Journal of Modern Physics Conference Series, 2012, 14, 1-15.	0.7	1
107	PRECISION MEASUREMENT OF THE CASIMIR FORCE FOR Au USING A DYNAMIC AFM. International Journal of Modern Physics Conference Series, 2012, 14, 270-280.	0.7	3
108	COMPARISON BETWEEN EXPERIMENT AND THEORY FOR THE THERMAL CASIMIR FORCE. International Journal of Modern Physics Conference Series, 2012, 14, 155-170.	0.7	2

#	ARTICLE	IF	CITATIONS
109	NEW CONSTRAINTS ON YUKAWA-TYPE INTERACTIONS FROM THE CASIMIR EFFECT. International Journal of Modern Physics Conference Series, 2012, 14, 200-214.	0.7	1
110	Comment on "Casimir Force and In-Situ Surface Potential Measurements on Nanomembranes". Physical Review Letters, 2012, 109, 199701.	7.8	16
111	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
112	Thermal Casimir effect in the interaction of graphene with dielectrics and metals. Physical Review B, 2012, 86, .	3.2	74
113	Thermal Casimir-Polder interaction of different atoms with graphene. Physical Review A, 2012, 86, .	2.5	86
114	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
115	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
116	Thermal Casimir effect for neutrino and electromagnetic fields in the closed Friedmann cosmological model. Physical Review D, 2011, 84, .	4.7	25
117	Thermal Casimir effect in closed Friedmann universe revisited. Physical Review D, 2011, 83, .	4.7	30
118	CAPACITANCE MEASUREMENTS AND ELECTROSTATIC CALIBRATIONS IN EXPERIMENTS MEASURING THE CASIMIR FORCE. International Journal of Modern Physics Conference Series, 2011, 03, 527-540.	0.7	1
119	WHAT IS CREDIBLE AND WHAT IS INCREDIBLE IN THE MEASUREMENTS OF THE CASIMIR FORCE. International Journal of Modern Physics Conference Series, 2011, 03, 541-554.	0.7	2
120	OBSERVATION OF THE THERMAL CASIMIR FORCE IS OPEN TO QUESTION. International Journal of Modern Physics Conference Series, 2011, 03, 515-526.	0.7	4
121	Exact Casimir-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
122	Casimir force between a microfabricated elliptic cylinder and a plate. Physical Review A, 2011, 84, .	2.5	11
123	Comment on "Temperature dependence of the Casimir force for lossy bulk media". Physical Review A, 2011, 84, .	2.5	2
124	Impact of surface imperfections on the Casimir force for lenses of centimeter-size curvature radii. Physical Review B, 2011, 83, .	3.2	51
125	Reduction of the Casimir Force from Indium Tin Oxide Film by UV Treatment. Physical Review Letters, 2011, 107, 090403.	7.8	84
126	OBSERVATION OF THE THERMAL CASIMIR FORCE IS OPEN TO QUESTION. International Journal of Modern Physics A, 2011, 26, 3918-3929.	1.5	32

#	ARTICLE	IF	CITATIONS
127	CONTROL OF THE CASIMIR FORCE USING SEMICONDUCTOR TEST BODIES. International Journal of Modern Physics B, 2011, 25, 171-230.	2.0	47
128	WHAT IS CREDIBLE AND WHAT IS INCREDIBLE IN THE MEASUREMENTS OF THE CASIMIR FORCE. International Journal of Modern Physics A, 2011, 26, 3944-3957.	1.5	6
129	CAPACITANCE MEASUREMENTS AND ELECTROSTATIC CALIBRATIONS IN EXPERIMENTS MEASURING THE CASIMIR FORCE. International Journal of Modern Physics A, 2011, 26, 3930-3943.	1.5	7
130	Authors question book reviewer's fairness. Physics Today, 2010, 63, 12-13.	0.3	0
131	On the validity of constraints on light elementary particles and extra-dimensional physics from the Casimir effect. European Physical Journal C, 2010, 68, 223-226.	3.9	22
132	Comparison of the experimental data for the Casimir pressure with the Lifshitz theory at zero temperature. Physical Review B, 2010, 81, .	3.2	7
133	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
134	Possibility of measuring thermal effects in the Casimir force. Physical Review A, 2010, 82, .	2.5	19
135	Thermal Casimir interaction between two magnetodielectric plates. Physical Review B, 2010, 81, .	3.2	39
136	THERMAL CASIMIR FORCE BETWEEN MAGNETIC MATERIALS. International Journal of Modern Physics A, 2010, 25, 2293-2301.	1.5	12
137	On the definition of dielectric permittivity for media with temporal dispersion in the presence of free charge carriers. Journal of Physics A: Mathematical and Theoretical, 2010, 43, 015402.	2.1	0
138	THE CASIMIR EFFECT AND THE FOUNDATIONS OF STATISTICAL PHYSICS. International Journal of Modern Physics A, 2010, 25, 2302-2312.	1.5	25
139	Advance and prospects in constraining the Yukawa-type corrections to Newtonian gravity from the Casimir effect. Physical Review D, 2010, 81, .	4.7	64
140	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
141	THERMAL CASIMIR FORCE BETWEEN MAGNETIC MATERIALS. , 2010, , .		0
142	THE CASIMIR EFFECT AND THE FOUNDATIONS OF STATISTICAL PHYSICS. , 2010, , .		0
143	Demonstration of the asymmetric lateral Casimir force between corrugated surfaces in the nonadditive regime. Physical Review B, 2009, 80, .	3.2	90
144	Impact of magnetic properties on atom-wall interactions. Physical Review A, 2009, 79, .	2.5	27

#	ARTICLE	IF	CITATIONS
145	Comment on "Thermal Lifshitz Force between an Atom and a Conductor with a Small Density of Carriers": Physical Review Letters, 2009, 102, 189301; author reply 189302.	7.8	13
146	Comment on "Anomalies in electrostatic calibrations for the measurement of the Casimir force in a sphere-plane geometry": Physical Review A, 2009, 79, .	2.5	76
147	Comment on "Contribution of Drifting Carriers to the Casimir-Lifshitz and Casimir-Polder Interactions with Semiconductor Materials": Physical Review Letters, 2009, 102, 189303; author reply 189304.	7.8	11
148	WHY SCREENING EFFECTS DO NOT INFLUENCE THE CASIMIR FORCE. International Journal of Modern Physics A, 2009, 24, 1721-1742.	1.5	42
149	PROBLEMS IN THE LIFSHITZ THEORY OF ATOM-WALL INTERACTION. International Journal of Modern Physics A, 2009, 24, 1777-1788.	1.5	35
150	Application of the proximity force approximation to gravitational and Yukawa-type forces. Physical Review D, 2009, 79, .	4.7	44
151	The Casimir force between real materials: Experiment and theory. Reviews of Modern Physics, 2009, 81, 1827-1885.	45.6	638
152	Experiment, theory and the Casimir effect. Journal of Physics: Conference Series, 2009, 161, 012003.	0.4	43
153	Thermal Casimir effect in ideal metal rectangular boxes. European Physical Journal C, 2008, 57, 823-834.	3.9	68
154	New approach to the thermal Casimir force between real metals. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164014.	2.1	42
155	Stronger constraints on non-Newtonian gravity from the Casimir effect. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164054.	2.1	46
156	van der Waals and Casimir interactions between atoms and carbon nanotubes. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 164012.	2.1	38
157	Comment on "Precision measurement of the Casimir-Lifshitz force in a fluid": Physical Review A, 2008, 77, .	2.5	36
158	Lifshitz theory of atom-wall interaction with applications to quantum reflection. Physical Review A, 2008, 78, .	2.5	67
159	Comment on "Analytical and numerical verification of the Nernst theorem for metals": Physical Review E, 2008, 77, 023101; discussion 023102.	2.1	38
160	Thermal Casimir-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
161	Conductivity of dielectric and thermal atom-wall interaction. Journal of Physics A: Mathematical and Theoretical, 2008, 41, 312002.	2.1	94
162	THE CASIMIR EFFECT IN RELATIVISTIC QUANTUM FIELD THEORIES. , 2008, , .		3

#	ARTICLE	IF	CITATIONS
163	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
164	Control of the Casimir force by the modification of dielectric properties with light. Physical Review B, 2007, 76, .	3.2	161
165	van der Waals interaction between a microparticle and a single-walled carbon nanotube. Physical Review B, 2007, 75, .	3.2	86
166	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
167	Comment on "Lateral Casimir Force beyond the Proximity-Force Approximation" Physical Review Letters, 2007, 98, 068901; author reply 068902.	7.8	36
168	Kramers-Kronig relations for plasma-like permittivities and the Casimir force. Journal of Physics A: Mathematical and Theoretical, 2007, 40, F339-F346.	2.1	73
169	Demonstration of optically modulated dispersion forces. Optics Express, 2007, 15, 4823.	3.4	149
170	Tests of new physics from precise measurements of the Casimir pressure between two gold-coated plates. Physical Review D, 2007, 75, .	4.7	367
171	Comment on "Effects of spatial dispersion on electromagnetic surface modes and on modes associated with a gap between two half spaces" Physical Review B, 2007, 75, .	3.2	44
172	Pulsating Casimir force. Journal of Physics A: Mathematical and Theoretical, 2007, 40, F841-F847.	2.1	48
173	Lifshitz-type formulas for graphene and single-wall carbon nanotubes: van der Waals and Casimir interactions. Physical Review B, 2006, 74, .	3.2	121
174	Experiment and theory in the Casimir effect. Contemporary Physics, 2006, 47, 131-144.	1.8	85
175	RECENT RESULTS ON THERMAL CASIMIR FORCE BETWEEN DIELECTRICS AND RELATED PROBLEMS. International Journal of Modern Physics A, 2006, 21, 5007-5042.	1.5	52
176	Rigorous approach to the comparison between experiment and theory in Casimir force measurements. Journal of Physics A, 2006, 39, 6485-6493.	1.6	39
177	Dependence of the Casimir-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
178	Casimir-Polder interaction between an atom and a cylinder with application to nanosystems. Journal of Physics A, 2006, 39, 6481-6484.	1.6	45
179	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
180	Present status of controversies regarding the thermal Casimir force. Journal of Physics A, 2006, 39, 6589-6600.	1.6	75

#	ARTICLE	IF	CITATIONS
181	Demonstration of the Difference in the Casimir Force for Samples with Different Charge-Carrier Densities. <i>Physical Review Letters</i> , 2006, 97, 170402.	7.8	125
182	Experimental test for the conductivity properties from the Casimir force between metal and semiconductor. <i>Physical Review A</i> , 2006, 74, .	2.5	112
183	Comment on "Temperature dependence of the Casimir effect". <i>Physical Review E</i> , 2006, 73, 028101.	2.1	85
184	SHORT-RANGE NON-NEWTONIAN GRAVITY AND CONSTRAINTS ON IT. , 2006, , .		0
185	Investigation of the Casimir force between metal and semiconductor test bodies. <i>Physical Review A</i> , 2005, 72, .	2.5	115
186	Thermal corrections in the Casimir interaction between a metal and dielectric. <i>Physical Review A</i> , 2005, 72, .	2.5	47
187	CASIMIR EFFECT AS A TEST FOR THERMAL CORRECTIONS AND HYPOTHETICAL LONG-RANGE INTERACTIONS. <i>International Journal of Modern Physics A</i> , 2005, 20, 2205-2221.	1.5	59
188	Dependences of the van der Waals atom-wall interaction on atomic and material properties. <i>Physical Review A</i> , 2005, 71, .	2.5	97
189	Van der Waals interaction between microparticle and uniaxial crystal with application to hydrogen atoms and multiwall carbon nanotubes. <i>Physical Review B</i> , 2005, 71, .	3.2	104
190	Thermal quantum field theory and the Casimir interaction between dielectrics. <i>Physical Review D</i> , 2005, 72, .	4.7	122
191	Experimental status of corrections to Newton's gravitational law inspired by extra dimensional physics. <i>Brazilian Journal of Physics</i> , 2004, 34, 211-216.	1.4	1
192	Reply to "Comment on "Surface-impedance approach solves problems with the thermal Casimir force between real metals""". <i>Physical Review A</i> , 2004, 70, .	2.5	41
193	Casimir-Polder interaction between an atom and a cavity wall under the influence of real conditions. <i>Physical Review A</i> , 2004, 70, .	2.5	108
194	Theory confronts experiment in the Casimir force measurements: Quantification of errors and precision. <i>Physical Review A</i> , 2004, 69, .	2.5	126
195	Control of the lateral Casimir force between corrugated surfaces. <i>Physical Review A</i> , 2004, 69, .	2.5	37
196	Precise Determination of the Casimir Force and First Realization of a "Casimir Less" Experiment. <i>Journal of Low Temperature Physics</i> , 2004, 135, 63-74.	1.4	41
197	Violation of the Nernst heat theorem in the theory of the thermal Casimir force between Drude metals. <i>Physical Review A</i> , 2004, 69, .	2.5	172
198	Constraints on Non-Newtonian Gravity from Recent Casimir Force Measurements. , 2004, , 269-288.		1

#	ARTICLE	IF	CITATIONS
199	Improved tests of extra-dimensional physics and thermal quantum field theory from new Casimir force measurements. <i>Physical Review D</i> , 2003, 68, .	4.7	242
200	New Features of the Thermal Casimir Force at Small Separations. <i>Physical Review Letters</i> , 2003, 90, 160404.	7.8	70
201	Surface-impedance approach solves problems with the thermal Casimir force between real metals. <i>Physical Review A</i> , 2003, 67, .	2.5	111
202	Unexpected Applications of Hill's Differential Equations in Quantum Field Theory and Cosmology. <i>International Journal of Modern Physics A</i> , 2003, 18, 2159-2166.	1.5	28
203	Experimental Status of Corrections to Newtonian Gravity Inspired by the Extra Dimensional Physics. <i>AIP Conference Proceedings</i> , 2003, , .	0.4	0
204	Demonstration of the Lateral Casimir Force. <i>Physical Review Letters</i> , 2002, 88, 101801.	7.8	254
205	Experimental and theoretical investigation of the lateral Casimir force between corrugated surfaces. <i>Physical Review A</i> , 2002, 66, .	2.5	149
206	Thermodynamical aspects of the Casimir force between real metals at nonzero temperature. <i>Physical Review A</i> , 2002, 65, .	2.5	103
207	Perturbation approach to the Casimir force between two bodies made of different real metals. <i>Physical Review A</i> , 2002, 65, .	2.5	52
208	Correlation of energy and free energy for the thermal Casimir force between real metals. <i>Physical Review A</i> , 2002, 66, .	2.5	112
209	PARTICLE CREATION IN THE CHIRAL COSMIC STRING SPACETIME. <i>International Journal of Modern Physics D</i> , 2002, 11, 437-445.	2.1	5
210	CONSTRAINTS ON FORCES INSPRIRED BY EXTRA DIMENSIONAL PHYSICS FOLLOWING FROM THE CASIMIR EFFECT. <i>International Journal of Modern Physics A</i> , 2002, 17, 722-731.	1.5	34
211	EXPERIMENTAL STATUS OF CORRECTIONS TO NEWTONIAN GRAVITATION INSPIRED BY EXTRA DIMENSIONS. <i>International Journal of Modern Physics A</i> , 2002, 17, 4307-4316.	1.5	33
212	CASIMIR FORCE UNDER THE INFLUENCE OF REAL CONDITIONS. <i>International Journal of Modern Physics A</i> , 2001, 16, 3291-3308.	1.5	49
213	Constraints on non-Newtonian gravity from the Casimir force measurements between two crossed cylinders. <i>Physical Review D</i> , 2001, 63, .	4.7	75
214	New constraints on ultrashort-ranged Yukawa interactions from atomic force microscopy. <i>Physical Review D</i> , 2001, 64, .	4.7	106
215	Bordag, Geyer, Klimchitskaya, and Mostepanenko Reply:. <i>Physical Review Letters</i> , 2001, 87, .	7.8	20
216	Investigation of the temperature dependence of the Casimir force between real metals. <i>Physical Review A</i> , 2001, 63, .	2.5	89

#	ARTICLE	IF	CITATIONS
217	WEAK SCALE COMPACTIFICATION AND CONSTRAINTS ON NON-NEWTONIAN GRAVITY IN SUBMILLIMETER RANGE. , 2001, , .		1
218	JACOBI ELLIPTIC SOLUTIONS OF \hat{g}_4 THEORY IN A FINITE DOMAIN. International Journal of Modern Physics A, 2000, 15, 2645-2659.	1.5	7
219	Higher-order conductivity corrections to the Casimir force. Physical Review A, 2000, 62, .	2.5	69
220	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
221	Casimir Force at Both Nonzero Temperature and Finite Conductivity. Physical Review Letters, 2000, 85, 503-506.	7.8	164
222	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
223	New experimental results on the Casimir effect. Brazilian Journal of Physics, 2000, 30, .	1.4	8
224	Complete roughness and conductivity corrections for Casimir force measurement. Physical Review A, 1999, 60, 3487-3495.	2.5	156
225	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
226	INDUCED PARITY VIOLATION ANOMALY FOR THE PROCA FIELD IN A THREE-DIMENSIONAL SPACE-TIME. International Journal of Modern Physics A, 1999, 14, 271-280.	1.5	0
227	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
228	Particle creation and vacuum polarization of a non-conformal scalar field near the isotropic cosmological singularity. Classical and Quantum Gravity, 1998, 15, 581-602.	4.0	21
229	Constraints for hypothetical interactions from a recent demonstration of the Casimir force and some possible improvements. Physical Review D, 1998, 58, .	4.7	108
230	VACUUM QUANTUM EFFECTS OF NONCONFORMAL SCALAR FIELD IN A NONSINGULAR COSMOLOGICAL MODEL. International Journal of Modern Physics D, 1998, 07, 779-792.	2.1	1
231	The Feasibility of Determining Vacancy Migration Energy by Atomic Force Microscopy Data. Surface Review and Letters, 1998, 05, 559-567.	1.1	1
232	HAMILTONIAN DIAGONALIZATION FOR A NONCONFORMAL SCALAR FIELD IN AN ISOTROPIC GRAVITATIONAL BACKGROUND. International Journal of Modern Physics D, 1998, 07, 249-259.	2.1	5
233	Atomic Paths in Scanning of the AFM Tip above the Close-Packed Surface in Repulsive Mode. Surface Review and Letters, 1998, 05, 989-996.	1.1	1
234	CALCULATION OF LATERAL FORCE COMPONENTS IN AFM CONTACT MODE IN APPLICATION TO THE DIAGNOSTIC OF POINT DEFECTS. Surface Review and Letters, 1997, 04, 271-278.	1.1	6

#	ARTICLE	IF	CITATIONS
235	New constraints on the Yukawa-type hypothetical interaction from the recent Casimir force measurement. <i>Physical Review D</i> , 1997, 56, R6-R10.	4.7	10
236	Creation of Nonconformal Particles from Vacuum by A Test-Model Isotropic Gravitational Field. <i>Modern Physics Letters A</i> , 1997, 12, 145-154.	1.2	7
237	AFM OPERATING MODE WITH A CONSTANT FORCE PROJECTION ONTO THE ARBITRARY AXIS. <i>Surface Review and Letters</i> , 1997, 04, 613-620.	1.1	2
238	Vacuum Stress-Energy Tensor of Nonconformal Scalar Field in Quasi-Euclidean Gravitational Background. <i>International Journal of Modern Physics D</i> , 1997, 06, 449-463.	2.1	15
239	A Proposed Experiment Using a Sphere with an Eccentric Cavity for Hypothetical Long-Range Interactions. <i>International Journal of Modern Physics A</i> , 1997, 12, 1465-1482.	1.5	3
240	Modeling of surfaces of constant force above a lattice of close-packed atoms in the repulsive mode. <i>Technical Physics</i> , 1997, 42, 655-662.	0.7	1
241	Casimir Force Between Real Boundaries: Contributions of Mechanical and Electrical Imperfections. <i>Teubner-Texte Zur Physik</i> , 1996, , 55-56.	3.0	0
242	RESTRICTIONS ON THE HYPOTHETICAL LONG RANGE INTERACTIONS FROM THE CASIMIR-TYPE NULL EXPERIMENT WITH THREE TEST BODIES. <i>Modern Physics Letters A</i> , 1994, 09, 2671-2680.	1.2	2
243	Heisenberg representation of second-quantized fields in stationary external fields and nonlinear dielectric media. <i>Theoretical and Mathematical Physics(Russian Federation)</i> , 1993, 97, 1393-1404.	0.9	1
244	Hypothetical long-range interactions and restrictions on their parameters from force measurements. <i>Physical Review D</i> , 1993, 47, 2882-2891.	4.7	55
245	Prospects of decentralizing the system of provision for unity in measurements and quantum metrology. <i>Measurement Techniques</i> , 1992, 35, 1235-1239.	0.6	0
246	Quantum effects associated with parametric generation of light and the theory of squeezed states. <i>Theoretical and Mathematical Physics(Russian Federation)</i> , 1991, 88, 913-925.	0.9	12
247	Quantum effects in nonlinear insulating materials in the presence of a nonstationary electromagnetic field. <i>Theoretical and Mathematical Physics(Russian Federation)</i> , 1991, 86, 303-309.	0.9	14
248	Metrological surface scanning tunneling and atomic-force microscopy. <i>Measurement Techniques</i> , 1990, 33, 26-30.	0.6	0
249	Laboratory tests for the constituents of dark matter. <i>Astronomische Nachrichten</i> , 1990, 311, 197-200.	1.2	2
250	Corrections to vacuum forces resulting from small distortions of the geometry of a region. <i>Theoretical and Mathematical Physics(Russian Federation)</i> , 1989, 79, 487-493.	0.9	2
251	Energy-momentum tensor of intermediate vector bosons in an external electromagnetic field. <i>Theoretical and Mathematical Physics(Russian Federation)</i> , 1988, 74, 137-142.	0.9	0
252	The Casimir effect and its applications. <i>Uspekhi Fizicheskikh Nauk</i> , 1988, 31, 965-987.	0.3	108

#	ARTICLE	IF	CITATIONS
253	Fundamental physical constants and standards. Measurement Techniques, 1986, 29, 691-694.	0.6	0
254	Prospects for improving voltage standards based on the Josephson Effect. Measurement Techniques, 1986, 29, 712-716.	0.6	0
255	Method of dimensional regularization for scalar and vector fields in homogeneous isotropic spaces. Theoretical and Mathematical Physics(Russian Federation), 1985, 63, 366-375.	0.9	9
256	Self-Consistent Treatment of Vacuum Quantum Effects in Isotropic Cosmology. , 1984, , 197-212.		3
257	Vacuum Stressâ€Energy Tensor and Particle Creation in Isotropic Cosmological Models. Fortschritte Der Physik, 1980, 28, 173-199.	4.4	46
258	Particle creation and vacuum polarization by a nonstationary electric field. Theoretical and Mathematical Physics(Russian Federation), 1980, 45, 983-991.	0.9	3
259	Particle creation and vacuum polarisation in an isotropic universe. Journal of Physics A, 1980, 13, 2057-2065.	1.6	22
260	Breaking of conformal symmetry and quantization in curved spacetime. Theoretical and Mathematical Physics(Russian Federation), 1978, 37, 1065-1070.	0.9	2
261	Spontaneous breaking of CP symmetry in a nonstationary isotropic metric. Theoretical and Mathematical Physics(Russian Federation), 1978, 37, 975-983.	0.9	2
262	Spontaneous breaking of gauge symmetry in a nonstationary isotropic metric. Theoretical and Mathematical Physics(Russian Federation), 1977, 33, 869-876.	0.9	13
263	Creation and scattering of particles by a nonstationary electromagnetic field in the canonical formalism. Theoretical and Mathematical Physics(Russian Federation), 1976, 26, 148-155.	0.9	3
264	Spontaneous symmetry breaking in the interaction of a scalar field with an external vector field. Theoretical and Mathematical Physics(Russian Federation), 1976, 29, 1131-1135.	0.9	1
265	Particle creation from vacuum in homogeneous isotropic models of the Universe. General Relativity and Gravitation, 1976, 7, 535-547.	2.0	111
266	Particle creation from vacuum by a nonstationary gravitational field in the canonical formalism. Theoretical and Mathematical Physics(Russian Federation), 1974, 19, 349-361.	0.9	12
267	Particle creation from vacuum by a homogeneous electric field in the canonical formalism. Theoretical and Mathematical Physics(Russian Federation), 1972, 13, 1207-1217.	0.9	21