

Roughness correction to the Casimir force at short separation: extreme value statistics

Physical Review B

85,

DOI: [10.1103/physrevb.85.155410](https://doi.org/10.1103/physrevb.85.155410)

Citation Report

#	ARTICLE	IF	CITATIONS
1	Geometry and charge carrier induced stability in Casimir actuated nanodevices. European Physical Journal B, 2013, 86, 1.	1.5	19
2	Significance of the Casimir force and surface roughness for actuation dynamics of MEMS. Physical Review B, 2013, 87, .	3.2	48
3	Interplay of roughness/modulation and curvature for surface interactions at proximity. Europhysics Letters, 2013, 104, 41001.	2.0	20
4	Locality of surface interactions on colloidal probes. Physical Review B, 2013, 88, .	3.2	7
5	Perturbative roughness corrections to electromagnetic Casimir energies. Physical Review D, 2014, 89, .	4.7	6
6	Surface forces: Surface roughness in theory and experiment. Journal of Chemical Physics, 2014, 140, 164701.	3.0	60
7	Derivation of the Lifshitz-Matsubara sum formula for the Casimir pressure between metallic plane mirrors. Physical Review E, 2014, 90, 042125.	2.1	18
8	Casimir force between liquid metals. Europhysics Letters, 2014, 107, 40004.	2.0	5
9	Casimir forces from conductive silicon carbide surfaces. Physical Review B, 2014, 89, .	3.2	37
10	Nonlinear Actuation Dynamics of Driven Casimir Oscillators with Rough Surfaces. Physical Review Applied, 2015, 4, .	3.8	43
11	Increased porosity turns desorption to adsorption for gas bubbles near water-SiO ₂ interface. Physical Review B, 2015, 91, .	3.2	3
12	Quantum vacuum photon modes and repulsive Lifshitz-van der Waals interactions. Physical Review B, 2015, 92, .	3.2	4
13	Nanolevitation Phenomena in Real Plane-Parallel Systems Due to the Balance between Casimir and Gravity Forces. Journal of Physical Chemistry C, 2015, 119, 5663-5670.	3.1	21
14	Influence of surface roughness on dispersion forces. Advances in Colloid and Interface Science, 2015, 216, 1-19.	14.7	47
15	Classical and fluctuation-induced electromagnetic interactions in micron-scale systems: designer bonding, antibonding, and Casimir forces. Annalen Der Physik, 2015, 527, 45-80.	2.4	45
16	Casimir force measurements from silicon carbide surfaces. Physical Review B, 2016, 93, .	3.2	47
17	Materials perspective on Casimir and van der Waals interactions. Reviews of Modern Physics, 2016, 88, .	45.6	276
18	Giant heat transfer in the crossover regime between conduction and radiation. Nature Communications, 2017, 8, .	12.8	121

#	ARTICLE	IF	CITATIONS
19	Effect of surface roughness on van der Waals and Casimir-Polder/Casimir attraction energies. <i>Surface Science</i> , 2017, 663, 88-99.	1.9	2
20	Global consequences of a local Casimir force: Adhered cantilever. <i>Applied Physics Letters</i> , 2017, 111, .	3.3	12
21	Status Report and first Light from Cannex: Casimir Force Measurements between flat parallel Plates. <i>Journal of Physics: Conference Series</i> , 2018, 1138, 012014.	0.4	18
22	Measurement of the Casimir force in a gas and in a liquid. <i>Physical Review B</i> , 2018, 98, .	3.2	14
23	Sensitivity and accuracy of Casimir force measurements in air. <i>Physical Review A</i> , 2019, 100, .	2.5	7
24	Examining the Casimir puzzle with an upgraded AFM-based technique and advanced surface cleaning. <i>Physical Review B</i> , 2019, 100, .	3.2	36
25	Building a Casimir metrology platform with a commercial MEMS sensor. <i>Microsystems and Nanoengineering</i> , 2019, 5, 14.	7.0	25
26	Trapping of Gas Bubbles in Water at a Finite Distance below a Water-Solid Interface. <i>Langmuir</i> , 2019, 35, 4218-4223.	3.5	5
27	Statistics of the separation between sliding rigid rough surfaces: Simulations and extreme value theory approach. <i>Physical Review E</i> , 2019, 99, 023004.	2.1	6
28	A new DLVO-R theory. , 2019, , 129-147.		0
29	Comparison of Casimir forces and electrostatics from conductive SiC-Si/C and Ru surfaces. <i>Physical Review B</i> , 2019, 100, .	3.2	6
30	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
31	Applications of Casimir forces: Nanoscale actuation and adhesion. <i>Applied Physics Letters</i> , 2020, 117, .	3.3	15
32	Measuring the Dispersion Forces Near the van der Waals-Casimir Transition. <i>Physical Review Applied</i> , 2020, 13, .	3.8	14
33	Adhered cantilevers: A new method to measure dispersion forces between rough surfaces at short distances. <i>Modern Physics Letters A</i> , 2020, 35, 2040014.	1.2	1
34	Casimir force, causality, and the Gurzhi model. <i>Physical Review B</i> , 2020, 101, .	3.2	3
35	Mechanical Integrity of 3D Rough Surfaces during Contact. <i>Coatings</i> , 2020, 10, 15.	2.6	3
36	Elimination of electrostatic forces in precision Casimir force measurements using UV and Argon ion radiation. <i>Modern Physics Letters A</i> , 2020, 35, 2040001.	1.2	3

#	ARTICLE	IF	CITATIONS
37	Measuring the Casimir Forces with an Adhered Cantilever: Analysis of Roughness and Background Effects. Universe, 2021, 7, 64.	2.5	3
38	Casimir Puzzle and Casimir Conundrum: Discovery and Search for Resolution. Universe, 2021, 7, 84.	2.5	38
39	Casimir and electrostatic forces from thin films of varying thickness. Physical Review B, 2021, 103, .	2.2	1
40	Next Generation Design and Prospects for Cannex. Universe, 2021, 7, 234.	2.5	11
41	Excessive number of high asperities for sputtered rough films. Physical Review B, 2021, 104, .	3.2	5
42	Weak adhesion between deposited rough films: Relation to dispersion forces. Physical Review B, 2021, 104, .	3.2	4
43	Qualitative chirality effects on the Casimir-Lifshitz torque with liquid crystals. Physical Review Research, 2021, 3, .	3.6	6
44	Toward an Improved Method for Determining the Hamaker Constant of Solid Materials Using Atomic Force Microscopy. II. Dynamic Analysis and Preliminary Validation. Journal of Physical Chemistry C, 2021, 125, 20003-20013.	3.1	5
45	13.5 Dependence on surface roughness. , 2015, , 739-742.		0
46	The role of small separation interactions in ferrofluid structure. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2022, 635, 128082.	4.7	3
47	Theory-experiment comparison for the Casimir force between metallic test bodies: A spatially nonlocal dielectric response. Physical Review A, 2022, 105, .	2.5	13
48	Dispersion forces and equilibrium distance between deposited rough films in contact. Physical Review B, 2022, 105, .	3.2	4
49	Current status of the problem of thermal Casimir force. International Journal of Modern Physics A, 0, , .	1.5	5
50	Problems in measuring the Casimir forces at short separations. International Journal of Modern Physics A, 2022, 37, .	1.5	2
51	The Casimir effect in graphene systems: Experiment and theory. International Journal of Modern Physics A, 2022, 37, .	1.5	3
52	Sign reversal of Casimir-Lifshitz torque with separation distance: A theoretical guide to experimentation. Physical Review B, 2022, 105, .	3.2	1
53	Weak Adhesion between Contacting Rough Surfaces as Applied to Micro/Nanotechnologies. Colloid Journal, 2022, 84, 321-331.	1.3	0
54	Casimir Forces between a Dielectric and Metal: Compensation of the Electrostatic Interaction. Physics, 2023, 5, 814-822.	1.4	1

#	ARTICLE	IF	CITATIONS
55	Casimir Effect Invalidates the Drude Model for Transverse Electric Evanescent Waves. Physics, 2023, 5, 952-967.	1.4	3
56	Casimir force between semiconductor and metal and compensation of surface charges. Physics Letters, Section A: General, Atomic and Solid State Physics, 2023, 486, 129102.	2.1	0
57	Casimir-Lifshitz Optical Resonators: A New Platform for Exploring Physics at the Nanoscale. , 2024, 3, .		0