

Jose M Pitarke

List of Publications by Year in descending order

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122
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126
times ranked

3869
citing authors

#	ARTICLE	IF	CITATIONS
1	Semilocal approximations to the Kohn-Sham exchange potential as applied to a metal surface. <i>Physical Review B</i> , 2022, 105, .	1.1	3
2	Asymptotics of the metal-surface Kohn-Sham exact exchange potential revisited. <i>Physical Review B</i> , 2021, 104, .	1.1	5
3	Constraint-based wave vector and frequency dependent exchange-correlation kernel of the uniform electron gas. <i>Physical Review B</i> , 2020, 101, .	1.1	17
4	San Sebastian, a City of (Nano)Science and Technology. <i>ACS Nano</i> , 2019, 13, 12254-12256.	7.3	2
5	Comparison of dispersion-corrected exchange-correlation functionals using atomic orbitals. <i>Physical Review B</i> , 2019, 100, .	1.1	5
6	Dispersion-corrected PBEsol exchange-correlation functional. <i>Physical Review B</i> , 2018, 98, .	1.1	40
7	Solid-State Testing of a Van-Der-Waals-Corrected Exchange-Correlation Functional Based on the Semiclassical Atom Theory. <i>Computation</i> , 2018, 6, 7.	1.0	17
8	Gradient-dependent exchange-correlation kernel for materials optical properties. <i>Physical Review B</i> , 2018, 98, .	1.1	27
9	Plasmon Modes of Graphene Nanoribbons with Periodic Planar Arrangements. <i>Physical Review Letters</i> , 2016, 117, 116801.	2.9	52
10	Semilocal density functional theory with correct surface asymptotics. <i>Physical Review B</i> , 2016, 93, .	1.1	41
11	Dielectric screening and plasmon resonances in bilayer graphene. <i>Physical Review B</i> , 2016, 93, .	1.1	27
12	Kernel-corrected random-phase approximation for the uniform electron gas and jellium surface energy. <i>Physical Review B</i> , 2016, 94, .	1.1	16
13	Acoustic plasmons in extrinsic free-standing graphene. <i>New Journal of Physics</i> , 2014, 16, 083003.	1.2	53
14	Momentum-space finite-size corrections for quantum Monte Carlo calculations. <i>Physical Review B</i> , 2012, 85, .	1.1	1
15	Spherical-shell model for the van der Waals coefficients between fullerenes and/or nearly spherical nanoclusters. <i>Journal of Physics Condensed Matter</i> , 2012, 24, 424207.	0.7	12
16	Van der Waals Coefficients for Nanostructures: Fullerenes Defy Conventional Wisdom. <i>Physical Review Letters</i> , 2012, 109, 233203.	2.9	66
17	Adiabatic-connection-fluctuation-dissipation approach to long-range behavior of exchange-correlation energy at metal surfaces: A numerical study for jellium slabs. <i>Physical Review B</i> , 2011, 83, .	1.1	30
18	Benchmark quantum Monte Carlo calculations of the ground-state kinetic, interaction and total energy of the three-dimensional electron gas. <i>Journal of Physics Condensed Matter</i> , 2010, 22, 065501.	0.7	9

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19	Efficient method for the quantum Monte Carlo evaluation of the static density response function of a many-electron system. Physical Review B, 2010, 81, .	1.1	5
20	Localized versus extended systems in density functional theory: Some lessons from the Kohn-Sham exact exchange potential. Physical Review B, 2010, 81, .	1.1	20
21	Exchange-correlation hole of a generalized gradient approximation for solids and surfaces. Physical Review B, 2009, 79, .	1.1	54
22	The Many-Body Exchange-Correlation Hole at Metal Surfaces. Journal of Chemical Theory and Computation, 2009, 5, 895-901.	2.3	8
23	Position-dependent exact-exchange energy for slabs and semi-infinite jellium. Physical Review B, 2009, 80, .	1.1	30
24	Band structure effects on the Be(0001) acoustic surface plasmon energy dispersion. Physica Status Solidi (A) Applications and Materials Science, 2008, 205, 1307-1311.	0.8	19
25	Energy loss of charged particles moving parallel to a magnesium surface: Ab initio calculations. Physical Review B, 2008, 78, .	1.1	4
26	TIME-DEPENDENT CURRENT-DENSITY FUNCTIONAL THEORY FOR THE FRICTION OF IONS IN AN INTERACTING ELECTRON GAS. International Journal of Modern Physics B, 2008, 22, 3813-3839.	1.0	12
27	Theory of inelastic lifetimes of surface-state electrons and holes at metal surfaces. Journal of Physics Condensed Matter, 2008, 20, 304207.	0.7	2
28	Collapse of the Electron Gas to Two Dimensions in Density Functional Theory. Physical Review Letters, 2008, 101, 016406.	2.9	42
29	High-Level Correlated Approach to the Jellium Surface Energy, without Uniform-Gas Input. Physical Review Letters, 2008, 100, 036401.	2.9	68
30	Exact-exchange Kohn-Sham potential, surface energy, and work function of jellium slabs. Physical Review B, 2008, 78, .	1.1	26
31	Surface-plasmon polaritons in a lattice of metal cylinders. Physical Review B, 2007, 75, .	1.1	11
32	Simple dynamic exchange-correlation kernel of a uniform electron gas. Physical Review B, 2007, 75, .	1.1	50
33	Hellman-Feynman Operator Sampling in Diffusion Monte Carlo Calculations. Physical Review Letters, 2007, 99, 126406.	2.9	24
34	Including nonlocality in the exchange-correlation kernel from time-dependent current density functional theory: Application to the stopping power of electron liquids. Physical Review B, 2007, 76, .	1.1	56
35	Role of the electric field in surface electron dynamics above the vacuum level. Physical Review B, 2007, 75, .	1.1	33
36	Self-energy and lifetime of Shockley and image states on Cu(100) and Cu(111): Beyond the G - W approximation of many-body theory. Physical Review B, 2007, 76, .	1.1	8

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37	Quantum Monte Carlo modeling of the spherically averaged structure factor of a many-electron system. <i>Physical Review B</i> , 2007, 75, .	1.1	5
38	Low-energy acoustic plasmons at metal surfaces. <i>Nature</i> , 2007, 448, 57-59.	13.7	189
39	Theory of surface plasmons and surface-plasmon polaritons. <i>Reports on Progress in Physics</i> , 2007, 70, 1-87.	8.1	1,228
40	Wave-vector analysis of the jellium exchange-correlation surface energy in the random-phase approximation: Support for nonempirical density functionals. <i>Physical Review B</i> , 2006, 74, .	1.1	24
41	Surface plasmons in metallic structures. <i>Journal of Optics</i> , 2005, 7, S73-S84.	1.5	32
42	Time-dependent density-functional theory for the stopping power of an interacting electron gas for slow ions. <i>Physical Review B</i> , 2005, 71, .	1.1	40
43	Variational approach to the scattering of charged particles by a many-electron system. <i>Physical Review B</i> , 2005, 71, .	1.1	2
44	Acoustic surface plasmons in the noble metals Cu, Ag, and Au. <i>Physical Review B</i> , 2005, 72, .	1.1	102
45	Lifetimes of Shockley electrons and holes at Cu(111). <i>Physical Review B</i> , 2005, 72, .	1.1	13
46	Electron-hole and plasmon excitations in 3d transition metals: Ab initio calculations and inelastic x-ray scattering measurements. <i>Physical Review B</i> , 2005, 72, .	1.1	45
47	Time-dependent density-functional theory approach to nonlinear particle-solid interactions in comparison with scattering theory. <i>Journal of Physics Condensed Matter</i> , 2004, 16, 8621-8631.	0.7	4
48	Exchange and correlation effects in the relaxation of hot electrons in noble metals. <i>Physical Review B</i> , 2004, 69, .	1.1	21
49	Comment on "Diffusion Monte Carlo study of jellium surfaces: Electronic densities and pair correlation functions". <i>Physical Review B</i> , 2004, 70, .	1.1	11
50	Large crystal local-field effects in the dynamical structure factor of rutile TiO ₂ . <i>Physical Review B</i> , 2004, 70, .	1.1	17
51	Plasmon bands in metallic nanostructures. <i>Physical Review B</i> , 2004, 69, .	1.1	11
52	Novel low-energy collective excitation at metal surfaces. <i>Europhysics Letters</i> , 2004, 66, 260-264.	0.7	85
53	Ultrafast Electron Dynamics in Metals. <i>ChemPhysChem</i> , 2004, 5, 1284-1300.	1.0	12
54	Effects of the crystal structure in the dynamical electron density-response of hcp transition metals. <i>Computational Materials Science</i> , 2004, 30, 104-109.	1.4	5

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55	Theory of acoustic surface plasmons. <i>Physical Review B</i> , 2004, 70, .	1.1	65
56	Nonlinear, Band-Structure, and Surface Effects in the Interaction of Charged Particles with Solids. <i>Advances in Quantum Chemistry</i> , 2004, , 247-275.	0.4	0
57	Surface effects on the electronic energy loss of charged particles entering a metal surface. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2003, 129, 223-227.	0.8	3
58	Role of occupied bands in the dynamics of excited electrons and holes in Ag. <i>Physical Review B</i> , 2003, 68, .	1.1	36
59	Metal surface energy: Persistent cancellation of short-range correlation effects beyond the random phase approximation. <i>Physical Review B</i> , 2003, 67, .	1.1	41
60	Role of Surface Plasmons in the Decay of Image-Potential States on Silver Surfaces. <i>Physical Review Letters</i> , 2002, 89, 096401.	2.9	35
61	Image-potential-induced states at metal surfaces. <i>Journal of Electron Spectroscopy and Related Phenomena</i> , 2002, 126, 163-175.	0.8	34
62	Jellium surface energy beyond the local-density approximation: Self-consistent-field calculations. <i>Physical Review B</i> , 2001, 63, .	1.1	66
63	Many-body approach to the nonlinear interaction of charged particles with an interacting free electron gas. <i>Journal of Physics A</i> , 2001, 34, 7607-7620.	1.6	6
64	Optical absorption and energy-loss spectra of aligned carbon nanotubes. <i>European Physical Journal B</i> , 2001, 22, 257-265.	0.6	17
65	Dynamic structure factor of gold. <i>Computational Materials Science</i> , 2001, 22, 123-128.	1.4	13
66	An inhomogeneous and anisotropic Jastrow function for non-uniform many-electron systems. <i>Computational Materials Science</i> , 2001, 22, 129-136.	1.4	1
67	Electronic response of aligned multishell carbon nanotubes. <i>Physical Review B</i> , 2001, 63, .	1.1	15
68	Surface-state electron dynamics in noble metals. <i>Progress in Surface Science</i> , 2001, 67, 271-283.	3.8	41
69	Metallic slabs: perturbative treatments based on jellium. <i>Progress in Surface Science</i> , 2001, 67, 285-298.	3.8	4
70	Recent progress in the computational many-body theory of metal surfaces. <i>Computer Physics Communications</i> , 2001, 137, 123-142.	3.0	29
71	Energy loss of charged particles interacting with simple metal surfaces. <i>Physical Review B</i> , 2001, 64, .	1.1	36
72	Thin-film effects on the surface stopping power of a free electron gas. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2001, 182, 56-61.	0.6	4

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73	Lifetime of dholes at Cu surfaces: Theory and experiment. Physical Review B, 2001, 64, .	1.1	31
74	Theory of inelastic lifetimes of low-energy electrons in metals. Chemical Physics, 2000, 251, 1-35.	0.9	311
75	Band structure effects on the interaction of charged particles with solids. Nuclear Instruments & Methods in Physics Research B, 2000, 164-165, 147-160.	0.6	33
76	Induced polarization by charged particles in real solids. Nuclear Instruments & Methods in Physics Research B, 2000, 164-165, 161-167.	0.6	3
77	Self-energy and inelastic lifetimes of surface-state electrons and holes in metals. Applied Physics A: Materials Science and Processing, 2000, 71, 503-510.	1.1	18
78	Nonlinear interaction of charged particles with a free electron gas beyond the random-phase approximation. Physical Review B, 2000, 62, 6862-6865.	1.1	6
79	First-principles calculations of hot-electron lifetimes in metals. Physical Review B, 2000, 61, 13484-13492.	1.1	81
80	Hole Dynamics in Noble Metals. Physical Review Letters, 2000, 85, 3241-3244.	2.9	63
81	Slabs of stabilized jellium: Quantum-size and self-compression effects. Physical Review B, 2000, 62, 1699-1705.	1.1	20
82	Role of occupied states in the relaxation of hot electrons in Au. Physical Review B, 2000, 62, 1500-1503.	1.1	31
83	Order-N effective response of two-dimensional metallic structures. Surface Science, 2000, 454-456, 1090-1093.	0.8	5
84	Role of the intrinsic surface state in the decay of image states at a metal surface. Physical Review B, 1999, 59, 10591-10598.	1.1	69
85	Self-energy of image states on copper surfaces. Physical Review B, 1999, 60, 11795-11803.	1.1	68
86	Hydrodynamic approximation for the nonlinear response of a metal surface. Physical Review B, 1999, 60, 16176-16185.	1.1	6
87	Ab initio calculations of the dynamical response of copper. Physical Review B, 1999, 59, 12188-12191.	1.1	31
88	Quadratic electronic response of a two-dimensional electron gas. Physical Review B, 1999, 59, 10145-10151.	1.1	25
89	Plasmon excitation by charged particles interacting with metal surfaces. Physics Letters, Section A: General, Atomic and Solid State Physics, 1999, 256, 405-410.	0.9	14
90	Inelastic Lifetimes of Hot Electrons in Real Metals. Physical Review Letters, 1999, 83, 2230-2233.	2.9	116

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91	Surface screening and lifetime of image states on Li(110). Surface Science, 1999, 433-435, 882-885.	0.8	13
92	Interface modes of two-dimensional composite structures. Surface Science, 1999, 433-435, 605-611.	0.8	6
93	First Principles Calculation of the Hot Electron Lifetime in Simple and Noble Metals. Materials Research Society Symposia Proceedings, 1999, 579, 33.	0.1	0
94	Z13 corrections to the energy widths of the states of protons and antiprotons in an electron gas. Nuclear Instruments & Methods in Physics Research B, 1998, 135, 92-96.	0.6	1
95	Nonlinear corrections to the image potential of charged particles moving parallel to a metal surface. Nuclear Instruments & Methods in Physics Research B, 1998, 135, 97-102.	0.6	4
96	Electronic stopping power of periodic crystals. Nuclear Instruments & Methods in Physics Research B, 1998, 135, 103-106.	0.6	19
97	Lifetimes of Image-Potential States on Copper Surfaces. Physical Review Letters, 1998, 80, 4947-4950.	2.9	156
98	Effective electronic response of a system of metallic cylinders. Physical Review B, 1998, 57, 15261-15266.	1.1	33
99	Surface energy of a bounded electron gas: Analysis of the accuracy of the local-density approximation via ab initio self-consistent-field calculations. Physical Review B, 1998, 57, 6329-6332.	1.1	65
100	Electronic stopping power of aluminum crystal. Physical Review B, 1998, 58, 10307-10314.	1.1	43
101	Nonlinear energy-loss straggling of protons and antiprotons in an electron gas. Physical Review A, 1998, 57, 4053-4056.	1.0	4
102	Silver-filled carbon nanotubes used as spectroscopic enhancers. Physical Review B, 1998, 58, 6783-6786.	1.1	44
103	Quadratic energy-loss straggling and energy widths of the states of slow ions in an electron gas. Physical Review A, 1997, 56, 2913-2917.	1.0	2
104	Electron energy loss in composite systems. Physical Review B, 1997, 55, 9550-9557.	1.1	17
105	Quadratic induced polarization by an external heavy charge in an electron gas. Physical Review B, 1997, 56, 15654-15664.	1.1	22
106	Effective Medium Theory of the Optical Properties of Aligned Carbon Nanotubes. Physical Review Letters, 1997, 78, 4289-4292.	2.9	262
107	Electron energy loss for isolated cylinders. Surface Science, 1997, 377-379, 294-300.	0.8	11
108	Coherent double-plasmon excitation in solids. Nuclear Instruments & Methods in Physics Research B, 1996, 115, 75-78.	0.6	3

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109	Nonlinear quantum hydrodynamical model of the electron gas. Nuclear Instruments & Methods in Physics Research B, 1996, 115, 70-74.	0.6	7
110	Nonlinear wake in the random-phase-approximation. Nuclear Instruments & Methods in Physics Research B, 1995, 96, 604-609.	0.6	8
111	Nonlinear effects on charged particle interactions in matter. Nuclear Instruments & Methods in Physics Research B, 1995, 99, 187-191.	0.6	11
112	Quadratic response theory of the energy loss of charged particles in an electron gas. Physical Review B, 1995, 52, 13883-13902.	1.1	76
113	Resonant coherent ionization in grazing ion/atom-surface collisions at high velocities. Nuclear Instruments & Methods in Physics Research B, 1994, 90, 222-226.	0.6	5
114	Double plasmon excitation in an electron gas. Nuclear Instruments & Methods in Physics Research B, 1994, 90, 358-362.	0.6	13
115	Z31 correction to the stopping power of an electron gas for ions. Nuclear Instruments & Methods in Physics Research B, 1993, 79, 209-212.	0.6	35
116	The Z^3 Correction to the Bethe-Bloch Energy Loss Formula. Europhysics Letters, 1993, 24, 613-619.	0.7	63
117	Multiple scattering effects on electron emission by fast diclusters in solids. Nuclear Instruments & Methods in Physics Research B, 1991, 56-57, 365-368.	0.6	3
118	Dependence of knock-on collision electron emission on the orientation of fast diclusters in solids. Nuclear Instruments & Methods in Physics Research B, 1991, 56-57, 369-374.	0.6	5
119	Radiative electron capture by channeled ions. Physical Review B, 1991, 43, 62-70.	1.1	24
120	Tunneling spectroscopy: surface geometry and interface potential effects. Surface Science, 1990, 234, 1-16.	0.8	71
121	Electron density fluctuations induced by ion clusters in condensed matter. Nuclear Instruments & Methods in Physics Research B, 1989, 40-41, 333-339.	0.6	1
122	Apparent barrier height for tunneling electrons in STM. Surface Science, 1989, 217, 267-275.	0.8	33