

Rosa Carmina Monreal

List of Publications by Year in descending order

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89
papers

2,383
citations

186265
28
h-index

223800
46
g-index

90
all docs

90
docs citations

90
times ranked

1399
citing authors

#	ARTICLE	IF	CITATIONS
1	Theory for light emission from a scanning tunneling microscope. <i>Physical Review B</i> , 1990, 42, 9210-9213.	3.2	293
2	Photoluminescence of noble metals. <i>Physica Scripta</i> , 1988, 38, 174-179.	2.5	151
3	Competition between surface screening and size quantization for surface plasmons in nanoparticles. <i>New Journal of Physics</i> , 2013, 15, 083044.	2.9	85
4	Self-consistent LDA calculation in ion neutralization at metal surfaces. <i>Surface Science</i> , 1997, 370, 324-338.	1.9	77
5	Low-energy ion neutralization at surfaces: Resonant and Auger processes. <i>Physical Review A</i> , 2001, 64, .	2.5	77
6	Charge exchange and energy dissipation of particles interacting with metal surfaces. <i>Physical Review Letters</i> , 1990, 64, 1601-1604.	7.8	69
7	Charge exchange and energy loss of particles interacting with surfaces. <i>Physical Review B</i> , 1991, 44, 2003-2018.	3.2	69
8	Electromagnetic absorption mechanisms in metal nanospheres: Bulk and surface effects in radiofrequency-terahertz heating of nanoparticles. <i>Journal of Applied Physics</i> , 2011, 109, .	2.5	59
9	Molecular orbital theory for chemisorption and physisorption: The case of He on metals. <i>Physical Review B</i> , 1989, 39, 5684-5693.	3.2	58
10	Role of energy-level shifts on Auger neutralization processes: A calculation beyond the image potential. <i>Physical Review B</i> , 1998, 58, 7385-7390.	3.2	58
11	Transient dynamics and waiting time distribution of molecular junctions in the polaronic regime. <i>Physical Review B</i> , 2015, 92, .	3.2	56
12	Dynamical screening in Auger processes near metal surfaces. <i>Physical Review B</i> , 1995, 52, 4760-4763.	3.2	55
13	Local theory of Auger neutralization for slow and compact ions interacting with metal surfaces. <i>Physical Review A</i> , 1994, 49, 4716-4725.	2.5	52
14	Surface Miller Index Dependence of Auger Neutralization of Ions on Surfaces. <i>Physical Review Letters</i> , 2004, 92, 017601.	7.8	50
15	New model for ion neutralization at surfaces. <i>Surface Science</i> , 1999, 440, L875-L880.	1.9	49
16	Auger neutralization and ionization processes for charge exchange between slow noble gas atoms and solid surfaces. <i>Progress in Surface Science</i> , 2014, 89, 80-125.	8.3	47
17	Proton-induced kinetic plasmon excitation in Al and Mg. <i>Physical Review B</i> , 1999, 59, 15506-15512.	3.2	45
18	Blue shift of the dipolar plasma resonance in small silver particles on an alumina surface. <i>Physical Review B</i> , 1986, 33, 2828-2830.	3.2	44

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19	Theory for photon emission from a scanning tunneling microscope. <i>European Physical Journal B</i> , 1991, 84, 269-275.	1.5	44
20	Electron emission spectra in Auger processes near metal surfaces. <i>Surface Science</i> , 1997, 388, 231-241.	1.9	40
21	Long transient dynamics in the Anderson-Holstein model out of equilibrium. <i>Physical Review B</i> , 2013, 87, .	3.2	40
22	Electromagnetic-field-enhanced desorption of atoms. <i>Physical Review B</i> , 1990, 41, 7852-7855.	3.2	37
23	Multielectron neutralization channels in ion-surface scattering. <i>Physical Review B</i> , 1996, 53, 9622-9625.	3.2	37
24	Role of Electrons in Auger Neutralization at Metal Surfaces. <i>Physical Review Letters</i> , 2006, 97, 047601.	7.8	36
25	Linear combination of atomic orbitals calculation of the Auger neutralization rate of He ⁺ on Al(111), (100), and (110) surfaces. <i>Physical Review B</i> , 2005, 71, .	3.2	34
26	On Auger neutralization of He ⁺ ions on a Ag(111) surface. <i>Journal of Physics Condensed Matter</i> , 2003, 15, 1165-1171.	1.8	32
27	Dressed tunneling approximation for electronic transport through molecular transistors. <i>Physical Review B</i> , 2014, 89, .	3.2	29
28	Face-dependent Auger neutralization and ground-state energy shift for He in front of Al surfaces. <i>Physical Review B</i> , 2008, 78, .	3.2	28
29	Stationary and dynamical descriptions of strong correlated systems. <i>Physical Review B</i> , 2005, 71, .	3.2	27
30	Interpolative approach for electron-electron and electron-phonon interactions: From the Kondo to the polaronic regime. <i>Physical Review B</i> , 2008, 78, .	3.2	27
31	Energy loss of light ions and neutrals from surface scattering. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1990, 48, 378-381.	1.4	24
32	Azimuth-dependent Auger neutralization of He ⁺ on Ag(111) and (110) surfaces. <i>Physical Review B</i> , 2007, 75, .	3.2	24
33	Kondo resonance decoherence caused by an external potential. <i>Physical Review B</i> , 2005, 72, .	3.2	23
34	Equation of motion approach to the Anderson-Holstein Hamiltonian. <i>Physical Review B</i> , 2009, 79, .	3.2	22
35	Effective relaxation time in small spheres: Diffuse surface scattering. <i>Solid State Communications</i> , 1984, 52, 971-973.	1.9	21
36	Band structure effects in Auger neutralization of He ions at metal surfaces. <i>Physical Review B</i> , 2011, 84, .	3.2	21

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37	Neutralization of slow He ²⁺ on metal surfaces: theory for Auger and cascade electron emission. <i>Surface Science</i> , 1994, 303, 253-265.	1.9	19
38	Interference between resonant and Auger mechanisms for charge-exchange processes near surfaces. <i>Physical Review B</i> , 2003, 67, .	3.2	19
39	Charge Exchange Processes in Low Energy Ion-Metal Collisions. <i>Advances in Quantum Chemistry</i> , 2004, 45, 175-199.	0.8	19
40	Surface scattering contribution to the plasmon width in embedded Ag nanospheres. <i>Optics Express</i> , 2014, 22, 24994.	3.4	19
41	Superlattice Optics. <i>Physica Scripta</i> , 1986, 34, 348-352.	2.5	18
42	Relaxation-time effects in the transverse dielectric function and the electromagnetic properties of metallic surfaces and small particles. <i>Physical Review B</i> , 1986, 34, 7365-7366.	3.2	17
43	A theory for Auger neutralization of He ⁺ ions scattered off simple metal surfaces. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1993, 78, 44-48.	1.4	17
44	Nonequilibrium transport in molecular junctions with strong electron-phonon interactions. <i>Physical Review B</i> , 2010, 82, .	3.2	17
45	Raman Scattering by Electron-Hole Pairs at Metal Surfaces. <i>Europhysics Letters</i> , 1987, 4, 115-120.	2.0	15
46	Channeling effects in He scattering from Ni(110). <i>Surface Science</i> , 1989, 211-212, 271-278.	1.9	14
47	Crystallographic effects in charge exchange processes: He scattering from Ni(110). <i>Surface Science</i> , 1989, 217, 255-266.	1.9	13
48	Dynamical Auger charge transfer of noble gas atoms and metal surfaces. <i>Physical Review B</i> , 2008, 78, .	3.2	13
49	Diffuse Surface Scattering in the Plasmonic Resonances of Ultralow Electron Density Nanospheres. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 1847-1853.	4.6	12
50	Diffuse Surface Scattering and Quantum Size Effects in the Surface Plasmon Resonances of Low-Carrier-Density Nanocrystals. <i>Journal of Physical Chemistry C</i> , 2016, 120, 5074-5082.	3.1	12
51	Optical Properties of Non-Ideal Solid Surfaces: Phenomenological Models. <i>Physica Scripta</i> , 1980, 22, 155-164.	2.5	11
52	Auger neutralization of He ions on Ag surfaces: surface type and azimuthal orientation dependence. <i>Physica Status Solidi (B): Basic Research</i> , 2004, 241, 2367-2373.	1.5	11
53	Calculation of Auger-neutralization probabilities for He ⁺ -ions in LEIS. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2011, 269, 1296-1299.	1.4	11
54	Effects of the atomic level shift in the Auger neutralization rates of noble metal surfaces. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013, 315, 206-212.	1.4	11

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55	Mechanisms for ion-induced plasmon excitation in metals. Nuclear Instruments & Methods in Physics Research B, 1999, 157, 110-115.	1.4	10
56	Quasi-resonant neutralization of He ⁺ ions at a germanium surface. Journal of Physics Condensed Matter, 2013, 25, 485006.	1.8	10
57	Far-infrared optical absorption due to surface phonon excitations in small metal particles. Solid State Communications, 1985, 54, 661-663.	1.9	9
58	Quantum size and nonlocal effects in the electromagnetic properties of small metallic spheres. Physical Review B, 1985, 32, 7878-7889.	3.2	9
59	Ionization of He atoms during grazing scattering from a metal surface. Physical Review B, 2009, 79, .	3.2	9
60	Quantum-size effects in the electromagnetic response of small spheres. Journal of Physics C: Solid State Physics, 1985, 18, 4951-4956.	1.5	8
61	Magic energies in auger electron spectra. Nuclear Instruments & Methods in Physics Research B, 1993, 83, 459-461.	1.4	8
62	Theory of circular dichroism in photon STM experiments on magnetic samples. Physical Review B, 1995, 52, 12505-12507.	3.2	8
63	Spatial dispersion and the optical properties of a vacuum-dielectric interface. Physical Review B, 1977, 15, 5087-5088.	3.2	7
64	Theory of spin-polarized Auger electrons emitted in metastable He-Cu interaction. Solid State Communications, 1991, 77, 495-497.	1.9	7
65	Quantum-mechanical time-dependent calculation for Auger processes in the volume of metals. Physical Review B, 2000, 61, 13565-13572.	3.2	7
66	Critical implications of ion-surface energy accommodation and neutralization mechanism in hollow cathode physics. Journal of Applied Physics, 2021, 130, .	2.5	7
67	Non local electrodynamics of metal film systems. Journal De Physique, 1982, 43, 901-913.	1.8	7
68	A phenomenological model for optical properties of dielectric surfaces. Solid State Communications, 1979, 32, 613-616.	1.9	6
69	Reflectivity of Ag layers on Al substrate. Solid State Communications, 1982, 41, 99-101.	1.9	6
70	He ⁺ scattering on clean and oxygen covered Al(111). Nuclear Instruments & Methods in Physics Research B, 2005, 232, 27-31.	1.4	6
71	Interface Plasmons at the Boundary of Two Semi-Infinite Electron Gases. Physica Scripta, 1982, 26, 35-44.	2.5	5
72	Quantum-size effects in visible defect photoluminescence of colloidal ZnO quantum dots: a theoretical analysis. Nanoscale, 2018, 10, 7016-7025.	5.6	5

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73	Inelastic energy loss of low energy He scattered from Ni(110). Radiation Effects and Defects in Solids, 1989, 109, 75-80.	1.2	4
74	Effect of spin polarization of Ni(110) surface on Auger neutralization for grazing scattering of He+ ions. Nuclear Instruments & Methods in Physics Research B, 2009, 267, 571-574.	1.4	4
75	Auger neutralization of He+ on Cu surfaces: Simulation of azimuthal scans. Nuclear Instruments & Methods in Physics Research B, 2013, 317, 23-27.	1.4	4
76	Infrared Absorption and Hot Electron Production in Low-Electron-Density Nanospheres: A Look at Real Systems. Journal of Physical Chemistry Letters, 2017, 8, 524-530.	4.6	4
77	Surface photoeffect with non specular surface scattering of electrons. Journal De Physique, 1982, 43, 685-689.	1.8	4
78	The influence of the multiply charged ion velocity on electron emission. Nuclear Instruments & Methods in Physics Research B, 1989, 42, 171-174.	1.4	3
79	Electron emission in the neutralization of multiply-charged ions at low velocities on metal surfaces: the effect of secondary-electron cascades. Nuclear Instruments & Methods in Physics Research B, 1995, 100, 290-295.	1.4	3
80	Electron-phonon interaction in the dynamics of trap filling in quantum dots. Physical Review B, 2021, 104, .	3.2	3
81	Electromagnetic properties of small metallic spheres: Diffuse surface scattering. Physical Review B, 1986, 34, 2886-2888.	3.2	2
82	A new proposal to solve the time-dependent infinite-U Anderson model applied to ionâ€™ surface scattering processes. Nuclear Instruments & Methods in Physics Research B, 2001, 182, 49-55.	1.4	2
83	Hybridization effects on the Auger neutralization process of He+ on Ag(110) surface. Nuclear Instruments & Methods in Physics Research B, 2007, 256, 6-10.	1.4	2
84	Electron Emission from Surfaces Mediated by Ion-Induced Plasmon Excitation. , 2007, , 185-211.		2
85	Raman scattering from atomic adsorbates. Physica Scripta, 1988, 38, 180-187.	2.5	1
86	Novel optical superlattices. Physica Scripta, 1993, 47, 697-703.	2.5	1
87	Probing inelastic interactions of ions moving in solids by electron spectroscopy. Nuclear Instruments & Methods in Physics Research B, 2000, 164-165, 879-885.	1.4	1
88	A model simplification of dielectric responses and metal surface electrodynamics. Journal De Physique, 1984, 45, 1223-1230.	1.8	1
89	Interaction of helium with metal surfaces: A first-principle tight-binding approach. Surface Science, 1989, 211-212, 256-262.	1.9	0