Maria Blanco Rey

List of Publications by Year
in descending order

49 papers	2,407 citations	331670 21 h-index	197818 49 g-index
51 all docs	51 docs citations	51 times ranked	2815 citing authors

#	Article	IF	Citations
1	Prediction and observation of an antiferromagnetic topological insulator. Nature, 2019, 576, 416-422.	27.8	701
2	Unique Thickness-Dependent Properties of the van der Waals Interlayer Antiferromagnet <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mi>MnBi</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></ Films. Physical Review Letters, 2019, 122, 107202.	7.8	415
3	Tunable 3D/2D magnetism in the (MnBi2Te4)(Bi2Te3)m topological insulators family. Npj Quantum Materials, 2020, 5, .	5.2	138
4	Electronic Friction Dominates Hydrogen Hot-Atom Relaxation on Pd(100). Physical Review Letters, 2014, 112, 103203.	7.8	112
5	Ab initiomolecular dynamics with simultaneous electron and phonon excitations: Application to the relaxation of hot atoms and molecules on metal surfaces. Physical Review B, 2015, 92, .	3.2	76
6	Ordered Vacancy Network Induced by the Growth of Epitaxial Graphene on Pt(111). Physical Review Letters, 2010, 105, 216102.	7.8	70
7	Structure of RutileTiO2(110)â^'(1Ã—2): Formation ofTi2O3Quasi-1D Metallic Chains. Physical Review Letters, 2006, 96, 055502.	7.8	60
8	Silicene versus two-dimensional ordered silicide: Atomic and electronic structure of Si-<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mrow><mml:mo>(</mml:mo><mml:msqrt><mml:mn>19</m Physical Review B, 2014, 89, .	3.2	58
9	Surface electron density models for accurateab initiomolecular dynamics with electronic friction. Physical Review B, 2016, 93, .	3.2	54
10	Is Spillover Relevant for Hydrogen Adsorption and Storage in Porous Carbons Doped with Palladium Nanoparticles?. Journal of Physical Chemistry C, 2016, 120, 17357-17364.	3.1	51
11	Adiabatic Energy Loss in Hyperthermal H Atom Collisions with Cu and Au: A Basis for Testing the Importance of Nonadiabatic Energy Loss. Journal of Physical Chemistry Letters, 2013, 4, 3735-3740.	4.6	44
12	Ab initio molecular dynamics calculations on scattering of hyperthermal H atoms from Cu(111) and Au(111). Journal of Chemical Physics, 2014, 141, 054705.	3.0	41
13	Vibrational lifetimes of hydrogen on lead films: An ab initio molecular dynamics with electronic friction (AIMDEF) study. Journal of Chemical Physics, 2014, 141, 234702.	3.0	40
14	High Temperature Ferromagnetism in a GdAg₂ Monolayer. Nano Letters, 2016, 16, 4230-4235.	9.1	40
15	Efficient N₂ Formation on Ag(111) by Eleyâ€“Rideal Recombination of Hyperthermal Atoms. Journal of Physical Chemistry Letters, 2013, 4, 3704-3709.	4.6	32
16	Effects of electronic relaxation processes on vibrational linewidths of adsorbates on surfaces: The case of CO/Cu(100). Physical Review B, 2016, 94, .	3.2	31
17	Validity of perturbative methods to treat the spinâ€“orbit interaction: application to magnetocrystalline anisotropy. New Journal of Physics, 2019, 21, 073054.	2.9	29
18	LEED-IV study of the rutileTiO2(110)â^'1Ã—2surface with a Ti-interstitial added-row reconstruction. Physical Review B, 2007, 75, .	3.2	27

#	Article	IF	Citations
19	Atomic Roughness of an Intrinsically Chiral Surface Orientation of an fcc Metal: Cu{531}. Journal of Physical Chemistry C, 2010, 114, 4114-4117.	3.1	27
20	Influence of the van der Waals interaction in the dissociation dynamics of N2 on W(110) from first principles. Journal of Chemical Physics, 2015, 142, 074704.	3.0	23
21	Methane dissociation and methyl diffusion on PdO{100}. Journal of Chemical Physics, 2009, 130, 014705.	3.0	21
22	A molecular T-matrix approach to calculating Low-Energy Electron Diffraction intensities for ordered molecular adsorbates. Surface Science, 2005, 579, 89-99.	1.9	20
23	Scattering of Nitrogen Atoms off Ag(111) Surfaces: A Theoretical Study. Journal of Physical Chemistry C, 2013, 117, 9779-9790.	3.1	20
24	Mechanisms for H₂ Reduction on the PdO{101} Surface and the Pd{100}-(âˆš5 Ã—) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 5	3.1	19
25	Diffusion of Hydrogen in Pd Assisted by Inelastic Ballistic Hot Electrons. Physical Review Letters, 2012, 108, 115902.	7.8	19
26	Valence band electronic structure characterization of the rutile TiO2 (110)-(1Ã—2) reconstructed surface. Surface Science, 2013, 608, 92-96.	1.9	19
27	Energy loss in gas-surface dynamics: Electronâ€“hole pair and phonon excitation upon adsorbate relaxation. Nuclear Instruments & Methods in Physics Research B, 2016, 382, 26-31.	1.4	19
28	Energy loss and surface temperature effects in ab initio molecular dynamics simulations: N adsorption on Ag(111) as a case study. Physical Review B, 2017, 96, .	3.2	19
29	Dynamics of Nitrogen Scattering off N-Covered Ag(111). Journal of Physical Chemistry C, 2012, 116, 21903-21912.	3.1	14
30	Self-Organized Overlayers Formed by Alanine on Cu{311} Surfaces. Journal of Physical Chemistry C, 2014, 118, 18589-18603.	3.1	14
31	Co Nanodot Arrays Grown on a GdAu2 Template: Substrate/Nanodot Antiferromagnetic Coupling. Nano Letters, 2014, 14, 2977-2981.	9.1	14
32	Large Perpendicular Magnetic Anisotropy in Nanometer-Thick Epitaxial Graphene/Co/Heavy Metal Heterostructures for Spinâ€“Orbitronics Devices. ACS Applied Nano Materials, 2021, 4, 4398-4408.	5.0	13
33	Asymmetric relief of surface stress induced by a chiral adsorbate: Alaninate adsorption on Cu(110). Physical Review B, 2010, 81, .	3.2	12
34	Surface stress in d-band metal surfaces. Journal of Physics Condensed Matter, 2010, 22, 135007.	1.8	12
35	Determination of the surface structure of CeO2(111) by low-energy electron diffraction. Journal of Chemical Physics, 2013, 139, 114703.	3.0	12
36	Manipulating the Magnetic Moment of Palladium Clusters by Adsorption and Dissociation of Molecular Hydrogen. Journal of Physical Chemistry C, 2017, 121, 20756-20762.	3.1	12

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37	Influence of 4f filling on electronic and magnetic properties of rare earth-Au surface compounds. Nanoscale, 2020, 12, 22258-22267.	5.6	11
38	Surface Stress of Stepped Chiral Metal Surfaces. Physical Review Letters, 2009, 102, 026102.	7.8	9
39	Magnetic Properties of Metalâ€“Organic Coordination Networks Based on 3d Transition Metal Atoms. Molecules, 2018, 23, 964.	3.8	9
40	Manipulating interfacial hydrogens at palladium via STM. Physical Chemistry Chemical Physics, 2015, 17, 13973-13983.	2.8	7
41	Diffusion of hydrogen interstitials in the near-surface region of Pd(111) under the influence of surface coverage and external static electric fields. Journal of Chemical Physics, 2015, 142, 154704.	3.0	7
42	Surface diffraction structure determination from combinatorial simultaneous optimization. Surface Science, 2006, 600, L91-L95.	1.9	6
43	Intermode Coupling Drives the Irreversible Tautomerization in Porphycene on Copper(111) Induced by Scanning Tunnelling Microscopy. Journal of Physical Chemistry Letters, 2017, 8, 1053-1059.	4.6	6
44	Angular distributions and rovibrational excitation of N2 molecules recombined on N-covered Ag(111) by the Eleyâ€“Rideal mechanism. Catalysis Today, 2015, 244, 115-121.	4.4	5
45	On the tautomerisation of porphycene on copper (111): Finding the subtle balance between van der Waals interactions and hybridisation. Journal of Chemical Physics, 2016, 145, 244701.	3.0	5
46	Effect of the valence state on the band magnetocrystalline anisotropy in two-dimensional rare-earth/noble-metal compounds. Physical Review Research, 2022, 4, .	3.6	4
47	A FORTRAN-90 Low-Energy Electron Diffraction program (LEED90 v1.1). Computer Physics Communications, 2004, 161, 151-165.	7.5	3
48	Molecular t-matrices for Low-Energy Electron Diffraction (TMOL v1.1). Computer Physics Communications, 2004, 161, 166-178.	7.5	3
49	Quantitative LEED analysis using a simultaneous optimization algorithm. Journal of Physics Condensed Matter, 2008, 20, 304201.	1.8	3