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	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
2	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
3	Tunable 3D/2D magnetism in the (MnBi2Te4)(Bi2Te3)m topological insulators family. Npj Quantum Materials, 2020, 5, .	5.2	138
4	Influence of 4f filling on electronic and magnetic properties of rare earth-Au surface compounds. Nanoscale, 2020, 12, 22258-22267.	5.6	11
5	Validity of perturbative methods to treat the spinâ€“orbit interaction: application to magnetocrystalline anisotropy. New Journal of Physics, 2019, 21, 073054.	2.9	29
6	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
7	Prediction and observation of an antiferromagnetic topological insulator. Nature, 2019, 576, 416-422.	27.8	701
8	Magnetic Properties of Metalâ€“Organic Coordination Networks Based on 3d Transition Metal Atoms. Molecules, 2018, 23, 964.	3.8	9
9	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
10	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
11	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
12	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
13	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
14	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
15	Surface electron density models for accurateab initiomolecular dynamics with electronic friction. Physical Review B, 2016, 93, .	3.2	54
16	High Temperature Ferromagnetism in a GdAg₂ Monolayer. Nano Letters, 2016, 16, 4230-4235.	9.1	40
17	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
18	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

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19	Manipulating interfacial hydrogens at palladium via STM. Physical Chemistry Chemical Physics, 2015, 17, 13973-13983.	2.8	7
20	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
21	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
22	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
23	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
24	Electronic Friction Dominates Hydrogen Hot-Atom Relaxation on Pd(100). Physical Review Letters, 2014, 112, 103203.	7.8	112
25	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
26	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
27	Self-Organized Overlayers Formed by Alanine on Cu{311} Surfaces. Journal of Physical Chemistry C, 2014, 118, 18589-18603.	3.1	14
28	Co Nanodot Arrays Grown on a GdAu2 Template: Substrate/Nanodot Antiferromagnetic Coupling. Nano Letters, 2014, 14, 2977-2981.	9.1	14
29	Determination of the surface structure of CeO2(111) by low-energy electron diffraction. Journal of Chemical Physics, 2013, 139, 114703.	3.0	12
30	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
31	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
32	Valence band electronic structure characterization of the rutile TiO2 (110)-(1Ã—2) reconstructed surface. Surface Science, 2013, 608, 92-96.	1.9	19
33	Scattering of Nitrogen Atoms off Ag(111) Surfaces: A Theoretical Study. Journal of Physical Chemistry C, 2013, 117, 9779-9790.	3.1	20
34	Diffusion of Hydrogen in Pd Assisted by Inelastic Ballistic Hot Electrons. Physical Review Letters, 2012, 108, 115902.	7.8	19
35	Dynamics of Nitrogen Scattering off N-Covered Ag(111). Journal of Physical Chemistry C, 2012, 116, 21903-21912.	3.1	14
36	Asymmetric relief of surface stress induced by a chiral adsorbate: Alaninate adsorption on Cu(110). Physical Review B, 2010, 81, .	3.2	12

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37	Surface stress in d-band metal surfaces. Journal of Physics Condensed Matter, 2010, 22, 135007.	1.8	12
38	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
39	Ordered Vacancy Network Induced by the Growth of Epitaxial Graphene on Pt(111). Physical Review Letters, 2010, 105, 216102.	7.8	70
40	Surface Stress of Stepped Chiral Metal Surfaces. Physical Review Letters, 2009, 102, 026102.	7.8	9
41	Methane dissociation and methyl diffusion on PdO{100}. Journal of Chemical Physics, 2009, 130, 014705.	3.0	21
42	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
43	Quantitative LEED analysis using a simultaneous optimization algorithm. Journal of Physics Condensed Matter, 2008, 20, 304201.	1.8	3
44	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
45	Structure of RutileTiO2(110)â^'(1Ã—2): Formation ofTi2O3Quasi-1D Metallic Chains. Physical Review Letters, 2006, 96, 055502.	7.8	60
46	Surface diffraction structure determination from combinatorial simultaneous optimization. Surface Science, 2006, 600, L91-L95.	1.9	6
47	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
48	A FORTRAN-90 Low-Energy Electron Diffraction program (LEED90 v1.1). Computer Physics Communications, 2004, 161, 151-165.	7.5	3
49	Molecular t-matrices for Low-Energy Electron Diffraction (TMOL v1.1). Computer Physics Communications, 2004, 161, 166-178.	7.5	3