

Jaime SÃ¡nchez-Barriga

List of Publications by Year in descending order

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107
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94433

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docs citations

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times ranked

6784
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust behavior and spin-texture stability of the topological surface state in Bi ₂ Se ₃ upon deposition of gold. <i>Npj Quantum Materials</i> , 2022, 7, .	5.2	5
2	Ultrafast Thermalization Pathways of Excited Bulk and Surface States in the Ferroelectric Rashba Semiconductor GeTe. <i>Advanced Materials</i> , 2022, 34, e2200323.	21.0	3
3	Emergence of Fermi arcs due to magnetic splitting in an antiferromagnet. <i>Nature</i> , 2022, 603, 610-615.	27.8	25
4	Is There a Polaron Signature in Angle-Resolved Photoemission of $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \langle \text{mml:mrow} \langle \text{mml:mrow} \langle \text{mml:mi} \text{CsPbBr} \langle \text{mml:mi} \rangle \langle \text{mml:mrow} \langle \text{mml:mn} \text{3} \langle \text{mml:mn} \rangle \rangle \rangle \rangle \rangle$? <i>Physical Review Letters</i> , 2022, 128, 176405.	7.8	11
5	On the problem of Dirac cones in fullerenes on gold. <i>Nanoscale</i> , 2022, 14, 9124-9133.	5.6	1
6	Fermi surface tomography. <i>Nature Communications</i> , 2022, 13, .	12.8	6
7	Hidden spin-orbital texture at the $\overline{\Gamma}$ -located valence band maximum of a transition metal dichalcogenide semiconductor. <i>Nature Communications</i> , 2022, 13, .	12.8	5
8	Electrical Transport Properties of Vanadium-Doped Bi ₂ Te _{2.4} Se _{0.6} . <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000088.	1.5	3
9	Angle-Resolved Photoemission of Topological Matter: Examples from Magnetism, Electron Correlation, and Phase Transitions. <i>Physica Status Solidi (B): Basic Research</i> , 2021, 258, 2000371.	1.5	2
10	Structure Inversion Asymmetry and Rashba Effect in Quantum Confined Topological Crystalline Insulator Heterostructures. <i>Advanced Functional Materials</i> , 2021, 31, 2008885.	14.9	12
11	Impact of ordering on the reactivity of mixed crystals of topological insulators with anion substitution: Bi ₂ Se ₂ Te and Sb ₂ Se ₂ Te. <i>Applied Surface Science</i> , 2021, 541, 148490.	6.1	0
12	Origin of the band gap in Bi-intercalated graphene on Ir(111). <i>2D Materials</i> , 2021, 8, 035007.	4.4	1
13	Observation of a giant mass enhancement in the ultrafast electron dynamics of a topological semimetal. <i>Communications Physics</i> , 2021, 4, .	5.3	4
14	Mn-Rich MnSb ₂ Te ₄ : A Topological Insulator with Magnetic Gap Closing at High Curie Temperatures of 45-50 K. <i>Advanced Materials</i> , 2021, 33, e2102935.	21.0	70
15	Magnetization relaxation and search for the magnetic gap in bulk-insulating V-doped (Bi, Sb) ₂ Te ₃ . <i>Applied Physics Letters</i> , 2021, 119, .	3.3	6
16	Atomic and Electronic Structure of a Multidomain GeTe Crystal. <i>ACS Nano</i> , 2020, 14, 16576-16589.	14.6	15
17	Absence of a giant Rashba effect in the valence band of lead halide perovskites. <i>Physical Review B</i> , 2020, 102, .	3.2	17
18	Cubic Rashba Effect in the Surface Spin Structure of Rare-Earth Ternary Materials. <i>Physical Review Letters</i> , 2020, 124, 237202.	7.8	30

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19	Contrast Reversal in Scanning Tunneling Microscopy and Its Implications for the Topological Classification of Sb_2Te_3 . <i>Advanced Materials</i> , 2020, 32, e1906725.	21.0	14
20	Fully spin-polarized bulk states in ferroelectric GeTe. <i>Physical Review Research</i> , 2020, 2, .	3.6	13
21	Effective mass enhancement and ultrafast electron dynamics of Au(111) surface state coupled to a quantum well. <i>Physical Review Research</i> , 2020, 2, .	3.6	1
22	Mechanistic Studies of Gas Reactions with Multicomponent Solids: What Can We Learn By Combining NAP XPS and Atomic Resolution STEM/EDX?. <i>Journal of Physical Chemistry C</i> , 2019, 123, 26201-26210.	3.1	6
23	Surface electronic structure of the wide band gap topological insulator PbBi . <i>Physical Review B</i> , 2019, 100, .	2.4	5
24	Large magnetic gap at the Dirac point in $\text{Bi}_2\text{Te}_3/\text{MnBi}_2\text{Te}_4$ heterostructures. <i>Nature</i> , 2019, 576, 423-428.	27.8	189
25	Prediction and observation of an antiferromagnetic topological insulator. <i>Nature</i> , 2019, 576, 416-422.	27.8	701
26	Mapping the band structure of GeSbTe phase change alloys around the Fermi level. <i>Communications Physics</i> , 2018, 1, .	5.3	16
27	Samarium hexaboride is a trivial surface conductor. <i>Nature Communications</i> , 2018, 9, 517.	12.8	76
28	High-temperature quantum oscillations of the Hall resistance in bulk Bi_2Se_3 . <i>Scientific Reports</i> , 2018, 8, 485.	3.3	17
29	Phasenübergang durch chemische Substitution. <i>Nachrichten Aus Der Chemie</i> , 2018, 66, 1057-1061.	0.0	0
30	Strong Spin Dependence of Correlation Effects in Ni Due to Stoner Excitations. <i>Physical Review Letters</i> , 2018, 121, 267201.	7.8	5
31	Anomalous behavior of the electronic structure of Bi_2Te_3 across the quantum phase transition from topological to triv. <i>Physical Review B</i> , 2018, 98, .	3.2	16
32	Impact of ultrafast transport on the high-energy states of a photoexcited topological insulator. <i>Physical Review B</i> , 2018, 98, .	3.2	12
33	Band Renormalization of Blue Phosphorus on Au(111). <i>Nano Letters</i> , 2018, 18, 6672-6678.	9.1	63
34	Ferrimagnetic Heterostructures for Applications in Magnetic Recording. , 2018, , 267-331.		12
35	Can surface reactivity of mixed crystals be predicted from their counterparts? A case study of $(\text{Bi}_{1-x}\text{Sb}_x)_2\text{Te}_3$ topological insulators. <i>Journal of Materials Chemistry C</i> , 2018, 6, 8941-8949.	5.5	15
36	Subpicosecond spin dynamics of excited states in the topological insulator Bi_2Te_3 . <i>Physical Review B</i> , 2017, 95, .	2.1	11

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37	Laser-induced persistent photovoltage on the surface of a ternary topological insulator at room temperature. Applied Physics Letters, 2017, 110, .	3.3	23
38	Observation of hidden atomic order at the interface between Fe and topological insulator Bi_2Te_3 . Physical Chemistry Chemical Physics, 2017, 19, 30520-30532.	2.8	8
39	Topological quantum phase transition from mirror to time reversal symmetry protected topological insulator. Nature Communications, 2017, 8, 968.	12.8	31
40	Suppression of electron scattering resonances in graphene by quantum dots. Applied Physics Letters, 2017, 111, 161605.	3.3	9
41	Negative Longitudinal Magnetoresistance from the Anomalous $N=0$ Landau Level in Topological Materials. Physical Review Letters, 2017, 119, 106602.	7.8	42
42	Nanostructural origin of giant Rashba effect in intercalated graphene. 2D Materials, 2017, 4, 035010.	4.4	21
43	Tilted Dirac cone on $W(110)$ protected by mirror symmetry. Physical Review B, 2017, 95, .	3.2	19
44	Impact of stoichiometry and disorder on the electronic structure of the PbBi_2Te_3 topological insulator. Physical Review B, 2017, 96, .	3.2	14
45	Magneto-optical reflection spectroscopy on graphene/Co in the soft x-ray range. Journal of Physics: Conference Series, 2017, 903, 012025.	0.4	1
46	Giant Magnetic Band Gap in the Rashba-Split Surface State of Vanadium-Doped BiTeI : A Combined Photoemission and Ab Initio Study. Scientific Reports, 2017, 7, 3353.	3.3	14
47	Giant Rashba Splitting in $\text{Pb}_{1-x}\text{Sn}_x\text{Te}$ (111) Topological Crystalline Insulator Films Controlled by Bi Doping in the Bulk. Advanced Materials, 2017, 29, 1604185.	21.0	44
48	Generalized GW+Boltzmann Approach for the Description of Ultrafast Electron Dynamics in Topological Insulators. Materials, 2017, 10, 810.	2.9	7
49	Giant Rashba-Type Spin Splitting in Ferroelectric $\text{GeTe}(111)$. Advanced Materials, 2016, 28, 560-565.	21.0	155
50	Rashba splitting of 100meV in Au-intercalated graphene on SiC. Applied Physics Letters, 2016, 108, .	3.3	24
51	Far-Infrared and Raman Spectroscopy Investigation of Phonon Modes in Amorphous and Crystalline Epitaxial $\text{GeTe-Sb}_2\text{Te}_3$ Alloys. Scientific Reports, 2016, 6, 28560.	3.3	45
52	Tailoring the nature and strength of electron-phonon interactions in the $\text{SrTiO}_3(001)$ 2D electron liquid. Nature Materials, 2016, 15, 835-839.	27.5	171
53	Ferrimagnetic DyCo_5 for Bits in Heat-Assisted Magnetic Recording. Physical Review Applied, 2016, 5, .	3.1	11
54	Ultrafast spin-polarization control of Dirac fermions in topological insulators. Physical Review B, 2016, 93, .	3.2	61

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55	Absence of giant spin splitting in the two-dimensional electron liquid at the surface of SrTiO_3 . Physical Review B, 2016, 93, .	3.2	11
56	Disentangling bulk from surface contributions in the electronic structure of black phosphorus. Physical Review B, 2016, 93, .	3.2	11
57	Observation of antiphase coherent phonons in the warped Dirac cone of Bi_2Te_3 . Physical Review B, 2016, 94, .	3.2	11
58	Rapid Surface Oxidation of Sb_2Te_3 as Indication for a Universal Trend in the Chemical Reactivity of Tetradymite Topological Insulators. Chemistry of Materials, 2016, 28, 8916-8923.	6.7	27
59	Spin mapping of surface and bulk Rashba states in ferroelectric BiTe films. Physical Review B, 2016, 94, .	3.2	46
60	Surface Fermi arc connectivity in the type-II Weyl semimetal candidate WTe_2 . Physical Review B, 2016, 94, .	3.2	11
61	2D layered transport properties from topological insulator Bi_2Se_3 single crystals and micro flakes. Scientific Reports, 2016, 6, 27483.	3.3	55
62	Nonmagnetic band gap at the Dirac point of the magnetic topological insulator $(\text{Bi}_{1-x}\text{Mn}_x)_2\text{Se}_3$. Nature Communications, 2016, 7, 10559.	12.8	102
63	Highly spin-polarized Dirac fermions at the graphene/Co interface. Physical Review B, 2015, 91, .	3.2	41
64	Angle-resolved and core-level photoemission study of interfacing the topological insulator Bi_2Te_3 with Ag . Physical Review B, 2015, 92, .	3.2	11
65	Magnetization-dependent Rashba splitting of quantum well states at the Co/W interface. Physical Review B, 2015, 91, .	3.2	23
66	Atomic structure of Bi_2Te_3 surfaces probed by photoelectron diffraction and holography. Physical Review B, 2015, 91, .	3.2	26
67	Tunable Fermi level and hedgehog spin texture in gapped graphene. Nature Communications, 2015, 6, 7610.	12.8	48
68	Spin splitting of Dirac fermions in graphene on Ni intercalated with alloy of Bi and Au. Carbon, 2015, 93, 984-996.	10.3	22
69	Transport Gap Opening and High On-Off Current Ratio in Trilayer Graphene with Self-Aligned Nanodomain Boundaries. ACS Nano, 2015, 9, 8967-8975.	14.6	21
70	Structural change upon annealing of amorphous GeSbTe grown on $\text{Si}(111)$. Journal of Applied Physics, 2014, 116, .	2.5	35
71	Electronic and spin structure of the topological insulator Bi_2Te_3 . Physical Review B, 2014, 89, 115407.	3.2	35
72	Anisotropic two-dimensional electron gas at $\text{SrTiO}_3(110)$. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 3933-3937.	7.1	99

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73	Observation of quantum-tunnelling-modulated spin texture in ultrathin topological insulator Bi ₂ Se ₃ films. Nature Communications, 2014, 5, 3841.	12.8	112
74	Rotated domain network in graphene on cubic-SiC(001). Nanotechnology, 2014, 25, 135605.	2.6	14
75	Anisotropic effect of warping on the lifetime broadening of topological surface states in angle-resolved photoemission from Bi_2Te_3 . Physical Review B, 2014, 89, 041405.	3.2	34
76	Photoemission of Bi_2Te_3 under Circularly Polarized Light: Probe of Spin Polarization or Means for Spin Manipulation?. Physical Review X, 2014, 4, 041045.	8.9	76
77	Deposition of topological insulator Sb ₂ Te ₃ films by an MOCVD process. Journal of Materials Chemistry A, 2014, 2, 8215.	10.3	44
78	The graphene/Au/Ni interface and its application in the construction of a graphene spin filter. Nanotechnology, 2013, 24, 295201.	2.6	16
79	Growth, Structure, and Electronic Properties of Epitaxial Bismuth Telluride Topological Insulator Films on BaF ₂ (111) Substrates. Crystal Growth and Design, 2013, 13, 3365-3373.	3.0	70
80	Spin-resolved photoemission and <i>ab initio</i> theory of graphene/SiC. Physical Review B, 2013, 88, .	3.2	11
81	Continuous wafer-scale graphene on cubic-SiC(001). Nano Research, 2013, 6, 562-570.	10.4	31
82	Evidence for topological band inversion of the phase change material Ge ₂ Sb ₂ Te ₅ . Applied Physics Letters, 2013, 103, .	3.3	28
83	Induced Rashba splitting of electronic states in monolayers of Au, Cu on a W(110) substrate. New Journal of Physics, 2013, 15, 095005.	2.9	17
84	Intact Dirac cone of Bi ₂ Te ₃ covered with a monolayer Fe. Physica Status Solidi - Rapid Research Letters, 2013, 7, 139-141.	2.4	18
85	Spin splitting of Dirac fermions in aligned and rotated graphene on Ir(111). Physical Review B, 2013, 87, .	3.2	38
86	Reversal of the Circular Dichroism in Angle-Resolved Photoemission from Bi_2Te_3 . Physical Review Letters, 2013, 110, 216801.	7.8	77
87	Negligible Surface Reactivity of Topological Insulators Bi ₂ Se ₃ and Bi ₂ Te ₃ towards Oxygen and Water. ACS Nano, 2013, 7, 5181-5191.	14.6	118
88	Effect of structural modulation and thickness of a graphene overlayer on the binding energy of the Rashba-type surface state of Ir(111). New Journal of Physics, 2013, 15, 115009.	2.9	11
89	Minigap isotropy and broken chirality in graphene with periodic corrugation enhanced by cluster superlattices. Physical Review B, 2012, 85, .	3.2	29
90	Effects of spin-dependent quasiparticle renormalization in Fe, Co, and Ni photoemission spectra: An experimental and theoretical study. Physical Review B, 2012, 85, .	3.2	60

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91	Intact Dirac Cones at Broken Sublattice Symmetry: Photoemission Study of Graphene on Ni and Co. Physical Review X, 2012, 2, . Probing two topological surface bands of Sb	8.9	57
92	2×2 Te 3×3 by spin-polarized photoemission spectroscopy. Physical Review B, 2012, 86, . Ir(111) Surface State with Giant Rashba Splitting Persists under Graphene in Air. Physical Review Letters, 2012, 108, 066804.	3.2	78
93	Hedgehog spin texture and Berry's phase tuning in a magnetic topological insulator. Nature Physics, 2012, 8, 616-622.	7.8	157
94	Tolerance of Topological Surface States towards Magnetic Moments: Fe on Bi_2Se_3 . Physical Review Letters, 2012, 108, 256810.	16.7	353
95	Magnetostatic coupling of 90° domain walls in $Fe_{19}Ni_{81}/Cu/Co$ trilayers. New Journal of Physics, 2011, 13, 033015.	7.8	181
96	Quantitative determination of spin-dependent quasiparticle lifetimes and electronic correlations in hcp cobalt. Physical Review B, 2010, 82, .	2.9	7
97	Chemical vapour deposition of graphene on Ni(111) and Co(0001) and intercalation with Au to study Dirac-cone formation and Rashba splitting. Diamond and Related Materials, 2010, 19, 734-741.	3.2	40
98	Strength of Correlation Effects in the Electronic Structure of Iron. Physical Review Letters, 2009, 103, 267203.	3.9	36
99	Time-resolved magnetization dynamics of cross-tie domain walls in permalloy microstructures. Journal of Physics Condensed Matter, 2009, 21, 496001.	7.8	107
100	Is There a Rashba Effect in Graphene on $3d$ Ferromagnets?. Physical Review Letters, 2009, 102, 057602.	1.8	8
101	Interplay between the magnetic anisotropy contributions of cobalt nanowires. Physical Review B, 2009, 80, .	7.8	131
102	Electronic and Magnetic Properties of Quasifreestanding Graphene on Ni. Physical Review Letters, 2008, 101, 157601.	3.2	72
103	A new sample holder for laser-excited pump-probe magnetic measurements on a Focus photoelectron emission microscope. Review of Scientific Instruments, 2008, 79, 033702.	7.8	596
104	Quantum Cavity for Spin due to Spin-Orbit Interaction at a Metal Boundary. Physical Review Letters, 2008, 101, 256601.	1.3	4
105	Magneto-electrolysis of Co nanowire arrays grown in a track-etched polycarbonate membrane. Journal of Magnetism and Magnetic Materials, 2007, 312, 99-106.	7.8	63
106	Absence of giant Rashba effect in the valence band of $CsPbBr_3$. , 0, , .	2.3	27
107			0