

Jose Avila

List of Publications by Year in descending order

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70
papers

6,375
citations

117625

34
h-index

91884

69
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70
all docs

70
docs citations

70
times ranked

8484
citing authors

#	ARTICLE	IF	CITATIONS
1	Silicene: Compelling Experimental Evidence for Graphenelike Two-Dimensional Silicon. <i>Physical Review Letters</i> , 2012, 108, 155501.	7.8	3,275
2	Band Alignment and Minigaps in Monolayer MoS ₂ -Graphene van der Waals Heterostructures. <i>Nano Letters</i> , 2016, 16, 4054-4061.	9.1	288
3	Evidence of Dirac fermions in multilayer silicene. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	180
4	Quasicrystalline 30° twisted bilayer graphene as an incommensurate superlattice with strong interlayer coupling. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2018, 115, 6928-6933.	7.1	169
5	Direct Observation of Interlayer Hybridization and Dirac Relativistic Carriers in Graphene/MoS ₂ van der Waals Heterostructures. <i>Nano Letters</i> , 2015, 15, 1135-1140.	9.1	163
6	Black Arsenic: A Layered Semiconductor with Extreme In-Plane Anisotropy. <i>Advanced Materials</i> , 2018, 30, e1800754.	21.0	161
7	Polycrystalline Graphene with Single Crystalline Electronic Structure. <i>Nano Letters</i> , 2014, 14, 5706-5711.	9.1	134
8	Observation of a two-dimensional liquid of Fröhlich polarons at the bare SrTiO ₃ surface. <i>Nature Communications</i> , 2015, 6, 8585.	12.8	127
9	Atomic structure of the $\sqrt{3} \times \sqrt{3}$ phase of silicene on Ag(111). <i>Physical Review B</i> , 2014, 90, .	3.2	107
10	Exploring electronic structure of one-atom thick polycrystalline graphene films: A nano angle resolved photoemission study. <i>Scientific Reports</i> , 2013, 3, 2439.	3.3	81
11	Layer-controlled single-crystalline graphene film with stacking order via Cu-Si alloy formation. <i>Nature Nanotechnology</i> , 2020, 15, 861-867.	31.5	79
12	First NanoARPES User Facility Available at SOLEIL: An Innovative and Powerful Tool for Studying Advanced Materials. <i>Synchrotron Radiation News</i> , 2014, 27, 24-30.	0.8	72
13	Nano-Architecture of nitrogen-doped graphene films synthesized from a solid CN source. <i>Scientific Reports</i> , 2018, 8, 3247.	3.3	72
14	Direct observation of the band structure in bulk hexagonal boron nitride. <i>Physical Review B</i> , 2017, 95, .	3.2	65
15	Stacking-Dependent Electronic Structure of Trilayer Graphene Resolved by Nanospot Angle-Resolved Photoemission Spectroscopy. <i>Nano Letters</i> , 2017, 17, 1564-1568.	9.1	63
16	The quasiparticle band dispersion in epitaxial multilayer silicene. <i>Journal of Physics Condensed Matter</i> , 2013, 25, 382202.	1.8	55
17	Emergence of Interfacial Polarons from Electron-Phonon Coupling in Graphene/h-BN van der Waals Heterostructures. <i>Nano Letters</i> , 2018, 18, 1082-1087.	9.1	55
18	Gate-Controlled Metal-Insulator Transition in TiS ₃ Nanowire Field-Effect Transistors. <i>ACS Nano</i> , 2019, 13, 803-811.	14.6	54

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19	Dimensionality-Mediated Semimetal-Semiconductor Transition in Ultrathin PtTe_2 Films. Physical Review Letters, 2020, 124, 036402.	7.8	54
20	van der Waals epitaxy of monolayer hexagonal boron nitride on copper foil: growth, crystallography and electronic band structure. 2D Materials, 2015, 2, 025003.	4.4	51
21	Band-gap expansion in the surface-localized electronic structure of MoS_2 (0002). Physical Review B, 2012, 86, .	3.2	47
22	Effect of oxygen and nitrogen functionalization on the physical and electronic structure of graphene. Nano Research, 2015, 8, 2620-2635.	10.4	47
23	Valence band inversion and spin-orbit effects in the electronic structure of monolayer GaSe. Physical Review B, 2018, 98, .	3.2	47
24	Large-area epitaxial growth of curvature-stabilized ABC trilayer graphene. Nature Communications, 2020, 11, 546.	12.8	47
25	Flat electronic bands in long sequences of rhombohedral-stacked graphene. Physical Review B, 2018, 97, .	3.2	46
26	ANTARES, a scanning photoemission microscopy beamline at SOLEIL. Journal of Physics: Conference Series, 2013, 425, 192023.	0.4	43
27	Quantum Transport and Nano Angle-resolved Photoemission Spectroscopy on the Topological Surface States of Single Sb_2Te_3 Nanowires. Scientific Reports, 2016, 6, 29493.	3.3	43
28	Electrolytic phototransistor based on graphene-MoS ₂ van der Waals p-n heterojunction with tunable photoresponse. Applied Physics Letters, 2016, 109, .	3.3	41
29	Topology and doping effects in three-dimensional nanoporous graphene. Carbon, 2018, 131, 258-265.	10.3	41
30	Strong interlayer hybridization in the aligned $\text{SnS}_2/\text{WSe}_2$ hetero-bilayer structure. Npj 2D Materials and Applications, 2019, 3, .	7.9	39
31	The Role of Oxygen Atoms on Excitons at the Edges of Monolayer WS_2 . Nano Letters, 2019, 19, 4641-4650.	9.1	39
32	The band structure of the quasi-one-dimensional layered semiconductor $\text{TiS}_3(001)$. Applied Physics Letters, 2018, 112, .	3.3	38
33	Boron-Doped Graphene Nanoribbons: Electronic Structure and Raman Fingerprint. ACS Nano, 2018, 12, 7571-7582.	14.6	38
34	Zooming in on Electronic Structure: NanoARPES at SOLEIL and ALS. Synchrotron Radiation News, 2012, 25, 19-25.	0.8	36
35	Two-Dimensional Hallmark of Highly Interconnected Three-Dimensional Nanoporous Graphene. ACS Omega, 2017, 2, 3691-3697.	3.5	32
36	Visualizing the Effect of an Electrostatic Gate with Angle-Resolved Photoemission Spectroscopy. Nano Letters, 2019, 19, 2682-2687.	9.1	32

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37	Indirect to direct band gap crossover in two-dimensional WS ₂ (1- <i>x</i>)Se _{2x} alloys. Npj 2D Materials and Applications, 2021, 5, .	7.9	31
38	Is graphene on copper doped?. Physica Status Solidi - Rapid Research Letters, 2013, 7, 643-646.	2.4	30
39	Visualizing electron localization of WS ₂ /WSe ₂ moiré superlattices in momentum space. Science Advances, 2021, 7, eabf4387.	10.3	24
40	Experimental observation of two massless Dirac-fermion gases in graphene-topological insulator heterostructure. 2D Materials, 2016, 3, 021009.	4.4	21
41	Effect of Band Symmetry on Photocurrent Production in Quasi-One-Dimensional Transition-Metal Trichalcogenides. ACS Applied Materials & Interfaces, 2020, 12, 40525-40531.	8.0	21
42	Substrate dependent electronic structure variations of van der Waals heterostructures of MoSe ₂ or MoSe ₂ (1- <i>x</i>)Te _{2x} grown by van der Waals epitaxy. 2D Materials, 2017, 4, 025094.	4.4	19
43	Unraveling the Structural and Electronic Properties at the WSe ₂ –Graphene Interface for a Rational Design of van der Waals Heterostructures. ACS Applied Nano Materials, 2018, 1, 1131-1140.	5.0	19
44	Band renormalization and spin polarization of MoS ₂ in graphene/MoS ₂ heterostructures. Physica Status Solidi - Rapid Research Letters, 2015, 9, 701-706.	2.4	17
45	COMPLEX BEHAVIORS AT SIMPLE SEMICONDUCTOR AND METAL/SEMICONDUCTOR SURFACES. Surface Review and Letters, 2003, 10, 981-1008.	1.1	16
46	Chemical imaging and angle-resolved photoemission study of well-ordered thermally reduced SrTiO ₂ $\langle 100 \rangle$. Physical Review B, 2012, 85, .	3.2	14
47	Electronic structure of transferred graphene/h-BN van der Waals heterostructures with nonzero stacking angles by nano-ARPES. Journal of Physics Condensed Matter, 2016, 28, 444002.	1.8	14
48	Exploring the Electronic Structure and Chemical Homogeneity of Individual Bi ₂ Te ₃ Nanowires by Nano-Angle-Resolved Photoemission Spectroscopy. Nano Letters, 2016, 16, 4001-4007.	9.1	13
49	Large local lattice expansion in graphene adlayers grown on copper. Nature Materials, 2018, 17, 450-455.	27.5	13
50	Resolving Deep Quantum-Well States in Atomically Thin 2H-MoTe ₂ Flakes by Nanospot Angle-Resolved Photoemission Spectroscopy. Nano Letters, 2018, 18, 4664-4668.	9.1	13
51	Graphene synthesis on SiO ₂ using pulsed laser deposition with bilayer predominance. Materials Chemistry and Physics, 2019, 238, 121905.	4.0	13
52	Nanospot angle-resolved photoemission study of Bernal-stacked bilayer graphene on hexagonal boron nitride: Band structure and local variation of lattice alignment. Physical Review B, 2019, 99, .	3.2	13
53	Electroanalytical Performance of Nitrogen-Doped Graphene Films Processed in One Step by Pulsed Laser Deposition Directly Coupled with Thermal Annealing. Materials, 2019, 12, 666.	2.9	13
54	The electronic band structure of quasi-one-dimensional van der Waals semiconductors: the effective hole mass of ZrS ₃ compared to TiS ₃ . Journal of Physics Condensed Matter, 2020, 32, 29LT01.	1.8	12

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55	Optimal focusing system of the Fresnel zone plates at the Synchrotron SOLEIL NanoARPES beamline. Journal of Physics: Conference Series, 2017, 849, 012039.	0.4	11
56	Interferometer-controlled soft X-ray scanning photoemission microscope at SOLEIL. Journal of Physics: Conference Series, 2013, 425, 132013.	0.4	10
57	Nanomosaic of Topological Dirac States on the Surface of $\text{Pb}_{5\text{Bi}_{24}\text{Se}_{41}}$ Observed by Nano-ARPES. Nano Letters, 2019, 19, 3737-3742.	9.1	10
58	Strain and Spin-Orbit Coupling Engineering in Twisted $\text{WS}_2/\text{Graphene}$ Heterobilayer. Nanomaterials, 2021, 11, 2921.	4.1	10
59	Gap Opening in Double-Sided Highly Hydrogenated Free-Standing Graphene. Nano Letters, 2022, 22, 2971-2977.	9.1	9
60	Electronic structure of graphene/hexagonal boron nitride heterostructure revealed by Nano-ARPES. Journal of Physics: Conference Series, 2017, 864, 012005.	0.4	8
61	Chemical and electronic structure imaging of graphene on Cu: a NanoARPES study. Journal of Physics Condensed Matter, 2017, 29, 183001.	1.8	6
62	Electronic structure determination using an assembly of conventional and synchrotron techniques: The case of a xanthate complex. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 180, 183-192.	3.9	6
63	Structural and electronic transitions in few layers of isotopically pure hexagonal boron nitride. Physical Review B, 2020, 102, .	3.2	6
64	Interplay of crystal thickness and in-plane anisotropy and evolution of quasi-one-dimensional electronic character in ReSe_2 . Physical Review B, 2021, 104, .	3.2	5
65	Perturbation of $\text{Ge}(111)$ and $\text{Si}(111)\hat{\sim}3\hat{1}\hat{\pm}\text{-Sn}$ surfaces by adsorption of dopants. Surface Science, 2006, 600, 3154-3159.	1.9	4
66	Electronic structure of polycrystalline CVD-graphene revealed by Nano-ARPES. Journal of Physics: Conference Series, 2017, 849, 012019.	0.4	4
67	Spatially-resolved electronic structure of stripe domains in IrTe_2 through electronic structure microscopy. Communications Physics, 2021, 4, .	5.3	4
68	Degradation of Albumin on Plasma-Treated Polystyrene by Soft X-ray Exposure. Polymers, 2016, 8, 244.	4.5	3
69	Insights into the Arsenic Shell Decapping Mechanisms in As/GaAs Nanowires by X-ray and Electron Microscopy. Journal of Physical Chemistry C, 2021, 125, 28136-28142.	3.1	2
70	High-resolution Electronic and Chemical imaging of wonder nanomaterials beyond graphene. Journal of Physics: Conference Series, 2017, 864, 012036.	0.4	0