

Elton Jêg Santos

List of Publications by Year in descending order

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69
papers

6,447
citations

87888

38
h-index

98798

67
g-index

73
all docs

73
docs citations

73
times ranked

10799
citing authors

#	ARTICLE	IF	CITATIONS
1	Mechanical properties of atomically thin boron nitride and the role of interlayer interactions. <i>Nature Communications</i> , 2017, 8, 15815.	12.8	576
2	Graphene/MoS ₂ Hybrid Technology for Large-Scale Two-Dimensional Electronics. <i>Nano Letters</i> , 2014, 14, 3055-3063.	9.1	554
3	Production of Highly Monolayer Enriched Dispersions of Liquid-Exfoliated Nanosheets by Liquid Cascade Centrifugation. <i>ACS Nano</i> , 2016, 10, 1589-1601.	14.6	365
4	High thermal conductivity of high-quality monolayer boron nitride and its thermal expansion. <i>Science Advances</i> , 2019, 5, eaav0129.	10.3	308
5	Efficient Blue Electroluminescence Using Quantum-Confined Two-Dimensional Perovskites. <i>ACS Nano</i> , 2016, 10, 9720-9729.	14.6	299
6	Ultrahigh-current-density niobium disulfide catalysts for hydrogen evolution. <i>Nature Materials</i> , 2019, 18, 1309-1314.	27.5	280
7	Tuning the Electronic and Chemical Properties of Monolayer MoS ₂ Adsorbed on Transition Metal Substrates. <i>Nano Letters</i> , 2013, 13, 509-514.	9.1	262
8	High-Performance WSe ₂ Complementary Metal Oxide Semiconductor Technology and Integrated Circuits. <i>Nano Letters</i> , 2015, 15, 4928-4934.	9.1	204
9	Mechanism of Gold-Assisted Exfoliation of Centimeter-Sized Transition-Metal Dichalcogenide Monolayers. <i>ACS Nano</i> , 2018, 12, 10463-10472.	14.6	203
10	Few-layer, large-area, 2D covalent organic framework semiconductor thin films. <i>Chemical Communications</i> , 2015, 51, 13894-13897.	4.1	201
11	Electric-Field Dependence of the Effective Dielectric Constant in Graphene. <i>Nano Letters</i> , 2013, 13, 898-902.	9.1	181
12	Electrically Driven Tuning of the Dielectric Constant in MoS ₂ Layers. <i>ACS Nano</i> , 2013, 7, 10741-10746.	14.6	179
13	Magnetism of substitutional Co impurities in graphene: Realization of single Co^{2+} vacancies. <i>Physical Review B</i> , 2010, 81, .	3.2	178
14	Approaching the Intrinsic Limit in Transition Metal Diselenides via Point Defect Control. <i>Nano Letters</i> , 2019, 19, 4371-4379.	9.1	161
15	Structural and Electrical Investigation of C ₆₀ –Graphene Vertical Heterostructures. <i>ACS Nano</i> , 2015, 9, 5922-5928.	14.6	151
16	The Magnetic Genome of Two-Dimensional van der Waals Materials. <i>ACS Nano</i> , 2022, 16, 6960-7079.	14.6	149
17	Raman signature and phonon dispersion of atomically thin boron nitride. <i>Nanoscale</i> , 2017, 9, 3059-3067.	5.6	141
18	Dielectric Screening in Atomically Thin Boron Nitride Nanosheets. <i>Nano Letters</i> , 2015, 15, 218-223.	9.1	129

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19	Epitaxial Growth of Molecular Crystals on van der Waals Substrates for High-Performance Organic Electronics. <i>Advanced Materials</i> , 2014, 26, 2812-2817.	21.0	120
20	Direct Covalent Chemical Functionalization of Unmodified Two-Dimensional Molybdenum Disulfide. <i>Chemistry of Materials</i> , 2018, 30, 2112-2128.	6.7	93
21	Universal magnetic properties of sp^3 -type defects in covalently functionalized graphene. <i>New Journal of Physics</i> , 2012, 14, 043022.	2.9	87
22	Switching on magnetism in Ni-doped graphene: Density functional calculations. <i>Physical Review B</i> , 2008, 78, .	3.2	83
23	Biquadratic exchange interactions in two-dimensional magnets. <i>Npj Computational Materials</i> , 2020, 6, .	8.7	83
24	Raman Spectra in Vanadate Nanotubes Revisited. <i>Nano Letters</i> , 2004, 4, 2099-2104.	9.1	81
25	Direct Observation of a Long-Lived Single-Atom Catalyst Chiseling Atomic Structures in Graphene. <i>Nano Letters</i> , 2014, 14, 450-455.	9.1	81
26	A Chirality-Based Quantum Leap. <i>ACS Nano</i> , 2022, 16, 4989-5035.	14.6	74
27	Electronic Polarizability as the Fundamental Variable in the Dielectric Properties of Two-Dimensional Materials. <i>Nano Letters</i> , 2020, 20, 841-851.	9.1	70
28	Aggregation-induced emission in lamellar solids of colloidal perovskite quantum wells. <i>Science Advances</i> , 2017, 3, eaaq0208.	10.3	65
29	Spectroscopic Size and Thickness Metrics for Liquid-Exfoliated <i>h</i> -BN. <i>Chemistry of Materials</i> , 2018, 30, 1998-2005.	6.7	65
30	Mechanical Properties of Atomically Thin Tungsten Dichalcogenides: WS_2 , WSe_2 , and WTe_2 . <i>ACS Nano</i> , 2021, 15, 2600-2610.	14.6	65
31	Molecular Arrangement and Charge Transfer in C_{60} /Graphene Heterostructures. <i>ACS Nano</i> , 2017, 11, 4686-4693.	14.6	60
32	Length- and Thickness-Dependent Optical Response of Liquid-Exfoliated Transition Metal Dichalcogenides. <i>Chemistry of Materials</i> , 2019, 31, 10049-10062.	6.7	57
33	Properties and dynamics of meron topological spin textures in the two-dimensional magnet $CrCl_3$. <i>Nature Communications</i> , 2021, 12, 185.	12.8	57
34	Epitaxially Grown Strained Pentacene Thin Film on Graphene Membrane. <i>Small</i> , 2015, 11, 2037-2043.	10.0	53
35	Chemical Vapor-Deposited Hexagonal Boron Nitride as a Scalable Template for High-Performance Organic Field-Effect Transistors. <i>Chemistry of Materials</i> , 2017, 29, 2341-2347.	6.7	52
36	Outstanding Thermal Conductivity of Single Atomic Layer Isotope-Modified Boron Nitride. <i>Physical Review Letters</i> , 2020, 125, 085902.	7.8	51

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37	Atomic-scale imaging of few-layer black phosphorus and its reconstructed edge. <i>Journal Physics D: Applied Physics</i> , 2017, 50, 084003.	2.8	42
38	Ab initio study of 2,3,7,8-tetrachlorinated dibenzo-p-dioxin adsorption on single wall carbon nanotubes. <i>Chemical Physics Letters</i> , 2007, 437, 79-82.	2.6	41
39	Magnetism of Single Vacancies in Rippled Graphene. <i>Journal of Physical Chemistry C</i> , 2012, 116, 7602-7606.	3.1	41
40	Asymmetric electric field screening in van der Waals heterostructures. <i>Nature Communications</i> , 2018, 9, 1271.	12.8	38
41	Magnetic Field Effect on Topological Spin Excitations in CrI_3 . <i>Physical Review X</i> , 2021, 11, .	8.9	37
42	Strain-Tunable Spin Moment in Ni-Doped Graphene. <i>Journal of Physical Chemistry C</i> , 2012, 116, 1174-1178.	3.1	36
43	Quantum Rescaling, Domain Metastability, and Hybrid Domain Walls in 2D CrI_3 Magnets. <i>Advanced Materials</i> , 2021, 33, e2004138.	21.0	34
44	Exfoliation of Quasi-Two-Dimensional Nanosheets of Metal Diborides. <i>Journal of Physical Chemistry C</i> , 2021, 125, 6787-6799.	3.1	32
45	Layer-Dependent Mechanical Properties and Enhanced Plasticity in the Van der Waals Chromium Trihalide Magnets. <i>Nano Letters</i> , 2021, 21, 3379-3385.	9.1	31
46	Scalable photonic sources using two-dimensional lead halide perovskite superlattices. <i>Nature Communications</i> , 2020, 11, 387.	12.8	29
47	Multiscale Analysis for Field-Effect Penetration through Two-Dimensional Materials. <i>Nano Letters</i> , 2016, 16, 5044-5052.	9.1	28
48	Strong Coupling of Carbon Quantum Dots in Plasmonic Nanocavities. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 19866-19873.	8.0	27
49	Rotational superstructure in van der Waals heterostructure of self-assembled C_{60} monolayer on the WSe_2 surface. <i>Nanoscale</i> , 2017, 9, 13245-13256.	5.6	23
50	Coexistence of structural and magnetic phases in van der Waals magnet CrI_3 . <i>Nature Communications</i> , 2021, 12, 6265.	12.8	22
51	Design and Synthesis of Heteroleptic Iridium(III) Phosphors for Efficient Organic Light-Emitting Devices. <i>Inorganic Chemistry</i> , 2017, 56, 15304-15313.	4.0	20
52	Relativistic domain-wall dynamics in van der Waals antiferromagnet MnPS_3 . <i>Npj Computational Materials</i> , 2022, 8, .	8.7	18
53	Domain wall dynamics in two-dimensional van der Waals ferromagnets. <i>Applied Physics Reviews</i> , 2021, 8, .	11.3	16
54	Magnetic field-induced non-trivial electronic topology in $\text{Fe}_3\text{V}_2\text{GeTe}_2$. <i>Applied Physics Reviews</i> , 2021, 8, .	11.3	14

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55	Electrical Spin Switch in Hydrogenated Multilayer Graphene. <i>Journal of Physical Chemistry C</i> , 2013, 117, 6420-6425.	3.1	12
56	Carrier-Mediated Magnetoelectric Coupling in Functionalized Graphene. <i>ACS Nano</i> , 2013, 7, 9927-9932.	14.6	10
57	Doping-Driven Wettability of Two-Dimensional Materials: A Multiscale Theory. <i>Langmuir</i> , 2017, 33, 12827-12837.	3.5	10
58	Intrinsic Controllable Magnetism of Graphene Grown on Fe. <i>Journal of Physical Chemistry C</i> , 2019, 123, 26870-26876.	3.1	10
59	Magnetism of covalently functionalized carbon nanotubes. <i>Applied Physics Letters</i> , 2011, 99, .	3.3	9
60	Ultrafast charge-transfer in organic photovoltaic interfaces: geometrical and functionalization effects. <i>Nanoscale</i> , 2016, 8, 15902-15910.	5.6	9
61	Phase transition and electronic structure evolution of MoTe_2 induced by W substitution. <i>Physical Review B</i> , 2018, 98, .	3.2	8
62	Magnetoelectric effect in functionalized few-layer graphene. <i>Physical Review B</i> , 2013, 87, .	3.2	8
63	Toward Controlled Growth of Helicity-Specific Carbon Nanotubes. <i>Journal of Physical Chemistry Letters</i> , 2015, 6, 2232-2237.	4.6	7
64	Screened Hybrid Exact Exchange Correction Scheme for Adsorption Energies on Perovskite Oxides. <i>Journal of Physical Chemistry C</i> , 2015, 119, 17662-17666.	3.1	7
65	Isotope effect on the thermal expansion coefficient of atomically thin boron nitride. <i>2D Materials</i> , 2021, 8, 034006.	4.4	5
66	Electric Field Effects on Graphene Materials. <i>Carbon Materials</i> , 2015, , 383-391.	1.2	2
67	First-Principles Study of the Electronic and Magnetic Properties of Defects in Carbon Nanostructures. <i>Carbon Materials</i> , 2013, , 41-76.	1.2	1
68	Exfoliation of Centimetre-Sized Transition Metal Dichalcogenide Monolayers. , 2019, , .		0
69	Nanomagnets: Quantum Rescaling, Domain Metastability, and Hybrid Domain Walls in 2D Cr ₃ Magnets (<i>Adv. Mater.</i> 5/2021). <i>Advanced Materials</i> , 2021, 33, 2170036.	21.0	0