

Jerzy Sadowski

List of Publications by Year in descending order

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129
papers

5,264
citations

159585

30
h-index

88630

70
g-index

133
all docs

133
docs citations

133
times ranked

7829
citing authors

#	ARTICLE	IF	CITATIONS
1	Graphene on Pt(111): Growth and substrate interaction. <i>Physical Review B</i> , 2009, 80, .	3.2	565
2	Tin Disulfide—An Emerging Layered Metal Dichalcogenide Semiconductor: Materials Properties and Device Characteristics. <i>ACS Nano</i> , 2014, 8, 10743-10755.	14.6	449
3	Direct Measurement of the Thickness-Dependent Electronic Band Structure of MoS_2 Using Angle-Resolved Photoemission Spectroscopy. <i>Physical Review Letters</i> , 2013, 111, 106801.	7.8	435
4	Nanofilm Allotrope and Phase Transformation of Ultrathin Bi Film on Si(111)- 7×7 . <i>Physical Review Letters</i> , 2004, 93, 105501.	7.8	417
5	Chemistry under Cover: Tuning Metal-Graphene Interaction by Reactive Intercalation. <i>Journal of the American Chemical Society</i> , 2010, 132, 8175-8179.	13.7	310
6	Electronic Structure of Few-Layer Epitaxial Graphene on Ru(0001). <i>Nano Letters</i> , 2009, 9, 2654-2660.	9.1	219
7	Large Single Crystals of Graphene on Melted Copper Using Chemical Vapor Deposition. <i>ACS Nano</i> , 2012, 6, 5010-5017.	14.6	218
8	The mechanism of caesium intercalation of graphene. <i>Nature Communications</i> , 2013, 4, 2772.	12.8	184
9	Role of Surface Electronic Structure in Thin Film Molecular Ordering. <i>Physical Review Letters</i> , 2005, 95, 256106.	7.8	136
10	Scanning tunneling microscopy on epitaxial bilayer graphene on ruthenium (0001). <i>Applied Physics Letters</i> , 2009, 94, .	3.3	115
11	Direct Measurement of the Tunable Electronic Structure of Bilayer MoS_2 by Interlayer Twist. <i>Nano Letters</i> , 2016, 16, 953-959.	9.1	113
12	Thin bismuth film as a template for pentacene growth. <i>Applied Physics Letters</i> , 2005, 86, 073109.	3.3	87
13	Layer-dependent electronic structure of an atomically heavy two-dimensional dichalcogenide. <i>Physical Review B</i> , 2015, 91, .	3.2	85
14	Origin of flat morphology and high crystallinity of ultrathin bismuth films. <i>Surface Science</i> , 2007, 601, 3593-3600.	1.9	79
15	<i>In Situ</i> Imaging of Cu_2O under Reducing Conditions: Formation of Metallic Fronts by Mass Transfer. <i>Journal of the American Chemical Society</i> , 2013, 135, 16781-16784.	13.7	74
16	Temperature-independent thermal radiation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 26402-26406.	7.1	69
17	Strong lateral growth and crystallization via two-dimensional allotropic transformation of semi-metal Bi film. <i>Surface Science</i> , 2005, 590, 247-252.	1.9	66
18	Topological semimetal in a Bi-Bi ₂ Se ₃ infinitely adaptive superlattice phase. <i>Physical Review B</i> , 2012, 86, .	3.2	59

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19	Substrate interactions with suspended and supported monolayer MoS_2 . Angle-resolved photoemission spectroscopy. <i>Physical Review B</i> , 2015, 91, .	3.2	56
20	Growth and Morphology of Ceria on Ruthenium (0001). <i>Journal of Physical Chemistry C</i> , 2013, 117, 221-232.	3.1	52
21	Termination-dependent topological surface states of the natural superlattice phase Bi_4Se_3 . <i>Physical Review B</i> , 2013, 88, .	3.2	52
22	Tuning of silicene-substrate interactions with potassium adsorption. <i>Applied Physics Letters</i> , 2013, 102, .	3.3	51
23	Stabilization of Catalytically Active Cu^+ Surface Sites on Titanium-Copper Mixed-Oxide Films. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 5336-5340.	13.8	51
24	Surface pre-melting and surface flattening of Bi nanofilms on $\text{Si}(111)-7\times 7$. <i>Surface Science</i> , 2003, 547, L877-L881.	1.9	47
25	Single-Nucleus Polycrystallization in Thin Film Epitaxial Growth. <i>Physical Review Letters</i> , 2007, 98, 046104.	7.8	42
26	Kinetics-driven anisotropic growth of pentacene thin films. <i>Physical Review B</i> , 2008, 77, .	3.2	42
27	Absence of a Proximity Effect for a Thin Film of a Bi_2Se_3 Insulator Grown on Top of a Bi_2Te_3 . <i>Physical Review Letters</i> , 2014, 113, 067203.	7.8	39
28	Nanopatterning in $\text{CeO}_2/\text{Cu}(111)$: A New Type of Surface Reconstruction and Enhancement of Catalytic Activity. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 839-843.	4.6	38
29	Stability of the quasicubic phase in the initial stage of the growth of bismuth films on $\text{Si}(111)-7\times 7$. <i>Journal of Applied Physics</i> , 2006, 99, 014904.	2.5	36
30	Epitaxial structures of self-organized, standing-up pentacene thin films studied by LEEM and STM. <i>Surface Science</i> , 2007, 601, 1304-1310.	1.9	34
31	Scale-invariant magnetic textures in the strongly correlated oxide NdNiO_3 . <i>Nature Communications</i> , 2019, 10, 4568.	12.8	30
32	Spontaneous aggregation of pentacene molecules and its influence on field effect mobility. <i>Applied Physics Letters</i> , 2007, 90, 251906.	3.3	28
33	Real-Time Microscopy of Reorientation Driven Nucleation and Growth in Pentacene Thin Films on Silicon Dioxide. <i>Advanced Functional Materials</i> , 2013, 23, 2653-2660.	14.9	28
34	New In-Situ and Operando Facilities for Catalysis Science at NSLS-II: The Deployment of Real-Time, Chemical, and Structure-Sensitive X-ray Probes. <i>Synchrotron Radiation News</i> , 2017, 30, 30-37.	0.8	28
35	Micrometre-scale single-crystalline borophene on a square-lattice $\text{Cu}(100)$ surface. <i>Nature Chemistry</i> , 2022, 14, 377-383.	13.6	28
36	Surface structure of bulk $2\text{H-MoS}_2(0001)$ and exfoliated suspended monolayer MoS_2 : A selected area low energy electron diffraction study. <i>Surface Science</i> , 2017, 660, 16-21.	1.9	25

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37	Self-assembly of ordered graphene nanodot arrays. <i>Nature Communications</i> , 2017, 8, 47.	12.8	25
38	Growth mode and oxidation state analysis of individual cerium oxide islands on Ru(0001). <i>Ultramicroscopy</i> , 2013, 130, 87-93.	1.9	24
39	Highly efficient solid state catalysis by reconstructed (001) Ceria surface. <i>Scientific Reports</i> , 2014, 4, 4627.	3.3	24
40	Exsolution-Driven Surface Transformation in the Host Oxide. <i>Nano Letters</i> , 2022, 22, 5401-5408.	9.1	23
41	Real-time Observation and Control of Pentacene Film Growth on an Artificially Structured Substrate. <i>Advanced Materials</i> , 2009, 21, 4996-5000.	21.0	22
42	Origin of chemical contrast in low-energy electron reflectivity of correlated multivalent oxides: The case of ceria. <i>Physical Review B</i> , 2013, 88, .	3.2	22
43	Growth and characterization of epitaxially stabilized ceria(001) nanostructures on Ru(0001). <i>Nanoscale</i> , 2016, 8, 10849-10856.	5.6	22
44	Polycrystalline domain structure of pentacene thin films epitaxially grown on a hydrogen-terminated Si(111) surface. <i>Physical Review B</i> , 2007, 76, .	3.2	21
45	Epitaxial relation and island growth of perylene-3,4,9,10-tetracarboxylic dianhydride (PTCDA) thin film crystals on a hydrogen-terminated Si(111) substrate. <i>Journal of Crystal Growth</i> , 2004, 262, 196-201.	1.5	20
46	Adsorption and electronic structure of single C ₆₀ F ₁₈ molecule on Si(111)-7 \times 7 surface. <i>Chemical Physics Letters</i> , 2009, 482, 307-311.	2.6	20
47	Multi-modal surface analysis of porous films under <i>operando</i> conditions. <i>AIP Advances</i> , 2020, 10, .	1.3	19
48	Lubrication Mechanism of Phosphonium Phosphate Ionic Liquid in Nanoscale Single-Asperity Sliding Contacts. <i>Advanced Materials Interfaces</i> , 2020, 7, 2000426.	3.7	18
49	Evidence of a second-order Peierls-driven metal-insulator transition in crystalline NbO ₂ . <i>Physical Review Materials</i> , 2019, 3, .	2.4	18
50	Epitaxial C ₆₀ thin films on Bi(0001). <i>Surface Science</i> , 2007, 601, L136-L139.	1.9	17
51	Single-domain epitaxial silicene on diboride thin films. <i>Applied Physics Letters</i> , 2016, 108, .	3.3	17
52	Electronic Structure of the Metastable Epitaxial Rock-Salt SnSe $\langle \text{mml:math} \text{xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:mo} \text{stretchy="false"} \rangle \{ \langle \text{mml:mo} \rangle \langle \text{mml:mn} \rangle 111 \langle \text{mml:mn} \rangle \langle \text{mml:mo} \text{stretchy="false"} \rangle \} \langle \text{mml:mo} \rangle \langle \text{mml:mrow} \rangle \langle \text{mml:math} \rangle$ Topological Crystalline Insulator. <i>Physical Review X</i> , 2017, 7, .	8.9	17
53	Blue photoluminescence of Zn _{1-x} Cd _x Se quantum wells in ZnMgSe. <i>Semiconductor Science and Technology</i> , 1995, 10, 489-491.	2.0	16
54	Reflection mass spectrometry studies on UHV ALE of Cd _{1-x} Zn _x Te (0 \times 1) compounds. <i>Applied Surface Science</i> , 1997, 112, 148-153.	6.1	16

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55	The growth mechanism of pentacene-fullerene heteroepitaxial films. <i>Surface Science</i> , 2009, 603, L53-L56.	1.9	16
56	Probing substrate-dependent long-range surface structure of single-layer and multilayer MoS_2 by low-energy electron microscopy and microprobe diffraction. <i>Physical Review B</i> , 2014, 89, .	3.2	16
57	Sudden Collapse of Magnetic Order in Oxygen-Deficient Nickelate Films. <i>Physical Review Letters</i> , 2021, 126, 187602.	7.8	16
58	Magnetic coupling of Fe-porphyrin molecules adsorbed on clean and oxygen-reconstructed Co(100) investigated by spin-polarized photoemission spectroscopy. <i>Physical Review Letters</i> , 2021, 126, 187602.	3.2	15
59	Near band edge photoluminescence of ZnO nanowires: Optimization via surface engineering. <i>Applied Physics Letters</i> , 2017, 111, 231901.	3.3	15
60	Emergent flat band electronic structure in a $\text{VSe}_2/\text{Bi}_2\text{Se}_3$ heterostructure. <i>Communications Materials</i> , 2021, 2, .	6.9	15
61	Structural Phase Transitions of NbO_2 : Bulk versus Surface. <i>Chemistry of Materials</i> , 2021, 33, 1416-1425.	6.7	14
62	Mechanism of two-dimensional chiral growth of 6,13-pentacenequinone thin films on Si(111). <i>Surface Science</i> , 2007, 601, 1311-1318.	1.9	13
63	Formation of giant crystalline grain via delayed growth process driven by organic molecular anisotropy. <i>Physical Review B</i> , 2010, 82, .	3.2	13
64	Scandium oxide coated polycrystalline tungsten studied using emission microscopy and photoelectron spectroscopy. <i>Ultramicroscopy</i> , 2012, 119, 106-110.	1.9	13
65	Metallic atomically-thin layered silicon epitaxially grown on silicene/ ZrB_2 . <i>2D Materials</i> , 2017, 4, 021015.	4.4	13
66	In Situ Probing of Ion Ordering at an Electrified Ionic Liquid/Au Interface. <i>Advanced Materials</i> , 2017, 29, 1606357.	21.0	13
67	Surface buckling of black phosphorus: Determination, origin, and influence on electronic structure. <i>Physical Review Materials</i> , 2017, 1, .	2.4	13
68	Fluorine etching on the Si(111)-(7 \times 7) surfaces using fluorinated fullerene. <i>Surface Science</i> , 2002, 521, 43-48.	1.9	12
69	Fluorinated fullerene thin films grown on the Si(111)-(7 \times 7) surfaces—STM and HREELS investigations. <i>Journal of Crystal Growth</i> , 2001, 229, 580-585.	1.5	11
70	Adsorption of Fluorinated C60 on the Si(111)-(7 \times 7) Surface Studied by Scanning Tunneling Microscopy and High-Resolution Electron Energy Loss Spectroscopy. <i>Japanese Journal of Applied Physics</i> , 2002, 41, 245-249.	1.5	11
71	Comparative studies of pentacene and perfluoropentacene grown on a Bi(0001) surface. <i>Nanotechnology</i> , 2009, 20, 095704.	2.6	11
72	Studying two-dimensional zeolites with the tools of surface science: MFI nanosheets on Au(111). <i>Catalysis Today</i> , 2017, 280, 283-288.	4.4	11

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73	Crystal structure reconstruction in the surface monolayer of the quantum spin liquid candidate $\text{Ir}_2\text{-RuCl}_3$. 2D Materials, 2020, 7, 035004.	4.4	11
74	High quantum efficiency GaAs photocathodes activated with Cs, O ₂ , and Te. AIP Advances, 2021, 11, .	1.3	11
75	Domain faceting in an in-plane magnetic reorientation transition. Physical Review B, 2010, 82, .	3.2	10
76	Surface morphology and transport studies of epitaxial graphene on SiC(0001). Physical Review B, 2011, 83, .	3.2	10
77	The electron spectro-microscopy beamline at National Synchrotron Light Source II: A wide photon energy range, micro-focusing beamline for photoelectron spectro-microscopies. Review of Scientific Instruments, 2012, 83, 023102.	1.3	10
78	Large mobility modulation in ultrathin amorphous titanium oxide transistors. Communications Materials, 2020, 1, .	6.9	10
79	Wrinkles of graphene on Ir(1 1 1): Macroscopic network ordering and internal multi-lobed structure. Carbon, 2015, 94, 856-863.	10.3	9
80	Phase transition and electronic structure evolution of MoTe_2 induced by W substitution. Physical Review B, 2018, 98, .	3.2	9
81	Resolving Chemical and Spatial Heterogeneities at Complex Electrochemical Interfaces in Li-Ion Batteries. Chemistry of Materials, 2022, 34, 232-243.	6.7	9
82	Ultrahigh vacuum atomic layer epitaxy of $\text{Cd}_{1-x}\text{Mn}_x\text{Te}$ layers grown on (100) substrates: reflection mass spectrometry studies. Thin Solid Films, 1997, 306, 266-270.	1.8	8
83	Stand-alone polarization-modulation infrared reflection absorption spectroscopy instrument optimized for the study of catalytic processes at elevated pressures. Review of Scientific Instruments, 2017, 88, 105109.	1.3	8
84	Correlating surface stoichiometry and termination in SrTiO ₃ films grown by hybrid molecular beam epitaxy. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	2.1	8
85	Structural transition of pentacene monolayer on Ga bilayer: From brick-wall structure to herringbone pattern of molecular dimers. Surface Science, 2005, 579, 80-88.	1.9	7
86	Interfacial nanostructure induced spin-reorientation transition in Ni/Fe/Ni/W(110). Physical Review B, 2011, 83, .	3.2	7
87	Pentacene growth on 3-aminopropyltrimethoxysilane modified silicon dioxide. Optical Materials, 2012, 34, 1635-1638.	3.6	7
88	Excitation and characterization of image potential state electrons on quasi-free-standing graphene. Physical Review B, 2018, 97, .	3.2	7
89	Visualizing Reversible Two-Dimensional Phase Transitions in Oxygen Chemisorbed Layers. Journal of Physical Chemistry C, 2018, 122, 28233-28244.	3.1	7
90	Scandium function in thermionic cathodes: A microspot synchrotron radiation x-ray photoelectron spectroscopy study of co-adsorbed Ba-Sc-O on W(100). Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2019, 37, .	2.1	7

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91	Hydrogen-Induced Clustering of Metal Atoms in Oxygenated Metal Surfaces. Journal of Physical Chemistry C, 2019, 123, 11662-11670.	3.1	7
92	Solid-solid dewetting of scandium thin films on the W(100) surface observed using emission microscopy. Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2019, 37, .	1.2	7
93	Strain-Dependent Surface Defect Equilibria of Mixed Ionic-Electronic Conducting Perovskites. Chemistry of Materials, 2022, 34, 5138-5150.	6.7	7
94	Fluorinated fullerene thin films on Si(111)-(7Å-7) surface. Materials Characterization, 2002, 48, 127-132.	4.4	6
95	Fluorine diffusion assisted by diffusing silicon on the Si(111)-(7Å-7) surface. Journal of Chemical Physics, 2008, 129, 234710.	3.0	6
96	Observation of intercalation-driven zone folding in quasi-free-standing graphene energy bands. Physical Review B, 2019, 99, .	3.2	6
97	Hydrogen bonded trimesic acid networks on Cu(111) reveal how basic chemical properties are imprinted in HR-AFM images. Nanoscale, 2021, 13, 18473-18482.	5.6	6
98	Temperature dependent low energy electron microscopy study of Ge island growth on bare and Ga terminated Si(112). Journal of Physics Condensed Matter, 2009, 21, 314020.	1.8	5
99	Non-compact oxide-island growth induced by surface phase transition of the intermetallic NiAl during vacuum annealing. Acta Materialia, 2020, 201, 244-253.	7.9	5
100	Quantum-Well Bound States in Graphene Heterostructure Interfaces. Physical Review Letters, 2021, 127, 086805.	7.8	5
101	The MBE temperature window for Cd _{1-x} Zn _x Te (0 ≤ x ≤ 1) compounds grown on 2°-off oriented GaAs(100) substrates. Physical Review Letters, 2000, 84, 4015-4015.	7.8	4
102	Xue et al. Reply. Physical Review Letters, 2000, 84, 4015-4015.	7.8	4
103	Epitaxial growth of C60 thin films on the Bi(0001)/Si(111) surface. Bulletin of the Russian Academy of Sciences: Physics, 2009, 73, 883-885.	0.6	4
104	Interface energetics in zinc phthalocyanine growth on Ag(100). Physical Review B, 2016, 93, .	3.2	4
105	Atomistic mechanisms of the initial oxidation of stepped Cu(111) surfaces. Physical Review B, 2022, 105, .	3.3	3
106	Surface Reactions of Ethanol over UO ₂ (100) Thin Film. Journal of Physical Chemistry C, 2015, 119, 24895-24901.	3.1	3
107	Morphology of Palladium Thin Film Deposited on a Two-Dimensional Bilayer Aluminosilicate. Topics in Catalysis, 2019, 62, 1067-1075.	2.8	3
108	Coupling between bulk thermal defects and surface segregation dynamics. Physical Review B, 2021, 104, .	3.2	3

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109	Magnetotransport and magnetic textures in Ho/FeCoGd/ I^2 -W multilayers. Physical Review B, 2022, 105, .	3.2	3
110	Adsorption and Electronic Structure of Single C ₆₀ F ₁₈ Molecule on Si(111)-7Å–7 Surface. Fullerenes Nanotubes and Carbon Nanostructures, 2010, 18, 369-375.	2.1	2
111	Nanoscience and nanotechnology. Open Physics, 2011, 9, .	1.7	2
112	Quantum corrections to the conductivity of disordered graphene on SiC $\overline{\{1\}}$: weak localization and current-bias dependent electron–electron interactions. New Journal of Physics, 2014, 16, 013024.	2.9	2
113	Visualization of molecular packing and tilting domains and interface effects in tetracene thin films on H/Si(001). Physica Status Solidi (B): Basic Research, 2017, 254, 1600777.	1.5	2
114	Tuning electronic properties by oxidation-reduction reactions at graphene-ruthenium interfaces. Carbon, 2018, 138, 271-276.	10.3	2
115	Fabrication of field-effect transistors with transfer-free nanostructured carbon as the semiconducting channel material. Nanotechnology, 2020, 31, 485203.	2.6	2
116	STM/STS STUDIES OF THE INITIAL STAGE OF GROWTH OF ULTRA-THIN Bi FILMS ON 7 Å–7-Si(111) SURFACE. International Journal of Nanoscience, 2007, 06, 399-401.	0.7	1
117	Formation of highly crystalline C ₆₀ molecular films on a Bi(0001)/Si(111) surface. JETP Letters, 2007, 86, 522-525.	1.4	1
118	Surface reconstruction of hexagonal Y-doped HoMnO_3 LuMnO_3 using low-energy electron diffraction. Physical Review B, 2010, 81, .	3.2	1
119	Second derivative analysis and alternative data filters for multi-dimensional spectroscopies: A Fourier-space perspective. Journal of Electron Spectroscopy and Related Phenomena, 2020, 238, 146852.	1.7	1
120	Correlation of Auger electron spectroscopy and microsynchrotron radiation x-ray photoelectron spectroscopy investigations of Ba-Sc-O desorption on W(100). Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics, 2020, 38, .	1.2	1
121	Mechanism of Chiral Growth of 6, 13-Pentacenequinone Films on Si (111). Advances in Materials Research, 2008, , 281-293.	0.2	1
122	Nanoscale Observation of Interface Formation Process between Semiconductor Surface and Pentacene Thin Film. Shinku/Journal of the Vacuum Society of Japan, 2007, 50, 723-728.	0.2	1
123	Controllable Growth of C ₆₀ Thin Films Bi(001)/Si(111) Surface. Fullerenes Nanotubes and Carbon Nanostructures, 2008, 16, 417-423.	2.1	0
124	Low-dimensional nanostructures and fullerene films on semiconductor surface. Bulletin of the Russian Academy of Sciences: Physics, 2009, 73, 32-35.	0.6	0
125	Adsorption and thermal treatments of 1-dodecene on Si(100) investigated by STM. Surface Science, 2015, 633, 89-93.	1.9	0
126	De-wetting of barium on W(100) and (110) surfaces observed using thermionic emission microscopy. , 2017, , .		0

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127	Nucleation, morphology, and structure of sub- μm thin ceria islands on Rh(111). <i>Surface and Interface Analysis</i> , 2019, 51, 110-114.	1.8	0
128	Ionic Liquids: Lubrication Mechanism of Phosphonium Phosphate Ionic Liquid in Nanoscale Single-Asperity Sliding Contacts (<i>Adv. Mater. Interfaces</i> 17/2020). <i>Advanced Materials Interfaces</i> , 2020, 7, 2070099.	3.7	0
129	A mathematical model of solid-state dewetting of barium thin films on $\langle 111 \rangle$ W(112). <i>Mathematical Modelling of Natural Phenomena</i> , 2020, 15, 12.	2.4	0