

Yu-Xiang Zheng

List of Publications by Year in descending order

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125
papers

1,928
citations

279798

23
h-index

302126

39
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125
all docs

125
docs citations

125
times ranked

2668
citing authors

#	ARTICLE	IF	CITATIONS
1	Study of structure and optical properties of silver oxide films by ellipsometry, XRD and XPS methods. Thin Solid Films, 2004, 455-456, 438-442.	1.8	185
2	Broadband optical absorption by tunable Mie resonances in silicon nanocone arrays. Scientific Reports, 2015, 5, 7810.	3.3	126
3	Optical properties of cubic Ti ₃ N ₄ , Zr ₃ N ₄ , and Hf ₃ N ₄ . Applied Physics Letters, 2006, 89, 151908.	3.3	103
4	Effects of Al Doping on the Properties of ZnO Thin Films Deposited by Atomic Layer Deposition. Nanoscale Research Letters, 2016, 11, 407.	5.7	95
5	The impact of thickness and thermal annealing on refractive index for aluminum oxide thin films deposited by atomic layer deposition. Nanoscale Research Letters, 2015, 10, 46.	5.7	71
6	High solar absorption of a multilayered thin film structure. Optics Express, 2007, 15, 1907.	3.4	62
7	Optical properties of thickness-controlled MoS ₂ thin films studied by spectroscopic ellipsometry. Applied Surface Science, 2017, 421, 884-890.	6.1	48
8	Nano-Cr-film-based solar selective absorber with high photo-thermal conversion efficiency and good thermal stability. Optics Express, 2012, 20, 28953.	3.4	45
9	Influence of nanocrystal size on dielectric functions of Si nanocrystals embedded in SiO ₂ matrix. Applied Physics Letters, 2009, 95, .	3.3	38
10	Evolution of short- and medium-range order in the melt-quenching amorphization of Ge ₂ Sb ₂ Te ₅ . Journal of Materials Chemistry C, 2018, 6, 5001-5011.	5.5	38
11	Optical transition properties of I^2aFeSi_2 film. Applied Physics Letters, 1994, 65, 3105-3107.	3.3	37
12	The thickness-dependent band gap and defect features of ultrathin ZrO ₂ films studied by spectroscopic ellipsometry. Physical Chemistry Chemical Physics, 2016, 18, 3316-3321.	2.8	33
13	Structural signature and transition dynamics of Sb ₂ Te ₃ melt upon fast cooling. Physical Chemistry Chemical Physics, 2018, 20, 11768-11775.	2.8	33
14	Fourier Transform Infrared Spectroscopy of α -Bisphenol A. Journal of Spectroscopy, 2016, 2016, 1-5.	1.3	32
15	Thickness-dependence of optical constants for Ta ₂ O ₅ ultrathin films. Applied Physics A: Materials Science and Processing, 2012, 108, 975-979.	2.3	29
16	Optical properties of epitaxial BiFeO ₃ thin film grown on SrRuO ₃ -buffered SrTiO ₃ substrate. Nanoscale Research Letters, 2014, 9, 188.	5.7	29
17	Ellipsometric study on optical properties of hydrogen plasma-treated aluminum-doped ZnO thin film. Vacuum, 2019, 163, 69-74.	3.5	28
18	Densely folded spectral images of the CCD spectrometer working in the full 200-1000nm wavelength range with high resolution. Optics Express, 2005, 13, 10049.	3.4	26

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19	Local structure order in Pd ₇₈ Cu ₆ Si ₁₆ liquid. <i>Scientific Reports</i> , 2015, 5, 8277.	3.3	26
20	Effective method to study the thickness-dependent dielectric functions of nanometal thin film. <i>Optics Letters</i> , 2016, 41, 4907.	3.3	26
21	Raman spectroscopy of α -Bisphenol A. <i>Journal of Molecular Structure</i> , 2016, 1108, 649-653.	3.6	26
22	Optical Properties of Al-Doped ZnO Films in the Infrared Region and Their Absorption Applications. <i>Nanoscale Research Letters</i> , 2018, 13, 149.	5.7	26
23	Influence of hydration water on CH ₃ NH ₃ PbI ₃ perovskite films prepared through one-step procedure. <i>Optics Express</i> , 2016, 24, A1431.	3.4	25
24	Approach to fabricating high-performance cooler with near-ideal emissive spectrum for above-ambient air temperature radiative cooling. <i>Solar Energy Materials and Solar Cells</i> , 2019, 200, 110013.	6.2	25
25	Study of the Kerr effect of Co _x Ag _{100-x} granular films. <i>Journal of Applied Physics</i> , 1999, 85, 5121-5123.	2.5	24
26	Multilayered metal-dielectric film structure for highly efficient solar selective absorption. <i>Materials Research Express</i> , 2018, 5, 066428.	1.6	24
27	Evolution of optical constants of silicon dioxide on silicon from ultrathin films to thick films. <i>Journal Physics D: Applied Physics</i> , 2010, 43, 445302.	2.8	23
28	Temperature-Dependent Optical Properties of Titanium Oxide Thin Films Studied by Spectroscopic Ellipsometry. <i>Applied Physics Express</i> , 2013, 6, 121101.	2.4	23
29	High efficiency of photon-to-heat conversion with a 6-layered metal/dielectric film structure in the 250-1200 nm wavelength region. <i>Optics Express</i> , 2014, 22, A1843.	3.4	23
30	Electronic and optical properties of hydrogen-terminated biphenylene nanoribbons: a first-principles study. <i>Physical Chemistry Chemical Physics</i> , 2021, 24, 357-365.	2.8	23
31	Phase change characteristics of aluminum doped Ge ₂ Sb ₂ Te ₅ films prepared by magnetron sputtering. <i>Optics Express</i> , 2007, 15, 10584.	3.4	22
32	Thickness dependent optical properties of titanium oxide thin films. <i>Applied Physics A: Materials Science and Processing</i> , 2013, 113, 557-562.	2.3	21
33	New design of the variable angle infrared spectroscopic ellipsometer using double Fourier transforms. <i>Review of Scientific Instruments</i> , 2000, 71, 2677-2683.	1.3	20
34	Tunable broadband near-infrared absorber based on ultrathin phase-change material. <i>Optics Communications</i> , 2017, 403, 166-169.	2.1	20
35	Effects of interlayer coupling on the excitons and electronic structures of WS ₂ /hBN/MoS ₂ van der Waals heterostructures. <i>Nano Research</i> , 2022, 15, 2674-2681.	10.4	20
36	Application of image spectrometer to in situ infrared broadband optical monitoring for thin film deposition. <i>Optics Express</i> , 2011, 19, 12969.	3.4	19

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37	Effects of dielectric screening on the excitonic and critical points properties of WS ₂ /MoS ₂ heterostructures. <i>Nanoscale</i> , 2020, 12, 23732-23739.	5.6	19
38	Effects of Oxygen Impurities on Glass-Formation Ability in Zr ₂ Cu Alloy. <i>Journal of Physical Chemistry B</i> , 2016, 120, 9223-9229.	2.6	18
39	Dielectric functions and critical points of crystalline WS ₂ ultrathin films with tunable thickness. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 12022-12031.	2.8	18
40	High efficient and wide-angle solar absorption with a multilayered metal-dielectric film structure. <i>Vacuum</i> , 2017, 146, 194-199.	3.5	18
41	Bergman-type medium-range order in rapidly quenched Ag _{0.74} Ge _{0.26} eutectic alloy studied by ab initio molecular dynamics simulation. <i>Acta Materialia</i> , 2014, 80, 498-504.	7.9	17
42	Numerical simulations of multilevel impurity photovoltaic effect in the sulfur doped crystalline silicon. <i>Renewable Energy</i> , 2015, 77, 442-446.	8.9	17
43	Concentration and size dependence of optical properties of Ag:Bi ₂ O ₃ composite films by using the co-sputtering method. <i>Thin Solid Films</i> , 2004, 455-456, 605-608.	1.8	14
44	Evolution of optical properties of tin film from solid to liquid studied by spectroscopic ellipsometry and ab initio calculation. <i>Applied Physics Letters</i> , 2014, 104, 121907.	3.3	14
45	Thickness-Dependent Optical Constants and Annealed Phase Transitions of Ultrathin ZnO Films. <i>Journal of Physical Chemistry C</i> , 2016, 120, 22532-22538.	3.1	14
46	Structure-Dependent Optical Properties of Self-Organized Bi ₂ Se ₃ Nanostructures: From Nanocrystals to Nanoflakes. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 29295-29301.	8.0	14
47	Tunable optical properties of co-sputtered Ti-SiO ₂ nanocomposite thin films. <i>Optical Materials Express</i> , 2017, 7, 2387.	3.0	13
48	Ellipsometric study on temperature dependent optical properties of topological bismuth film. <i>Applied Surface Science</i> , 2017, 421, 899-904.	6.1	11
49	Enhancement in photoelectric performance of flexible perovskite solar cells by thermal nanoimprint pillar-like nanostructures. <i>Materials Letters</i> , 2019, 248, 16-19.	2.6	11
50	Experimental observation of light refraction going from negative to positive in the visible region at the pure air/Au interface. <i>Physical Review B</i> , 2008, 77, .	3.2	10
51	Ellipsometric Study on Size-Dependent Melting Point of Nanometer-Sized Indium Particles. <i>Journal of Physical Chemistry C</i> , 2016, 120, 10686-10690.	3.1	10
52	Ta Doping Effect on Structural and Optical Properties of InTe Thin Films. <i>Nanomaterials</i> , 2020, 10, 1887.	4.1	10
53	Study of the thickness effect on the dielectric functions by utilizing a wedge-shaped Ti film sample with continuously varied thickness. <i>Applied Physics A: Materials Science and Processing</i> , 2015, 120, 875-879.	2.3	9
54	Si-centered capped trigonal prism ordering in liquid Pd ₈₂ Si ₁₈ alloy study by first-principles calculations. <i>RSC Advances</i> , 2017, 7, 18093-18098.	3.6	9

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55	Influence of interface layer on optical properties of sub-20 nm-thick TiO ₂ films. Journal Physics D: Applied Physics, 2018, 51, 085301.	2.8	9
56	Study of the Optical Properties of Bi _{3.15} Nd _{0.85} Ti ₃ O ₁₂ Ferroelectric Thin Films. Journal of the Korean Physical Society, 2008, 53, 2299-2302.	0.7	9
57	Study of a high-resolution infrared spectrometer by using an integrated multigrating structure. Review of Scientific Instruments, 2005, 76, 083118.	1.3	8
58	Negative refraction at the pure Ag/air interface observed in the visible Drude region. Applied Physics Letters, 2008, 93, 071910.	3.3	8
59	Optical constants of e-beam evaporated and annealed Nb ₂ O ₅ thin films with varying thickness. Journal Physics D: Applied Physics, 2016, 49, 265304.	2.8	8
60	Thickness-dependent free-electron relaxation time of Au thin films in near-infrared region. Journal of Nanophotonics, 2016, 10, 033009.	1.0	8
61	Path-folded infrared spectrometer consisting of 10 sub-gratings and a two-dimensional InGaAs detector. Optics Express, 2009, 17, 14956.	3.4	7
62	High photon-to-heat conversion efficiency in the wavelength region of 250~1200 nm based on a thermoelectric Bi ₂ Te ₃ film structure. Scientific Reports, 2017, 7, 44614.	3.3	7
63	Enhancement of solar absorption by a surface-roughened metal-dielectric film structure. Japanese Journal of Applied Physics, 2017, 56, 112301.	1.5	7
64	A coma-free super-high resolution optical spectrometer using 44 high dispersion sub-gratings. Scientific Reports, 2021, 11, 1093.	3.3	7
65	Design of non-polarizing cut-off filters based on dielectric-metal-dielectric stacks. Optics Express, 2013, 21, 19163.	3.4	6
66	Optical properties of high photoluminescence silicon nanocrystals embedded in SiO ₂ matrices obtained by annealing hydrogen silsesquioxane. Optical Materials, 2018, 84, 874-878.	3.6	6
67	The Design of Near-Perfect Spectrum-Selective Mirror Based on Photonic Structures for Passive Cooling of Silicon Solar Cells. Nanomaterials, 2020, 10, 2483.	4.1	6
68	Neural network potential for Zr-Rh system by machine learning. Journal of Physics Condensed Matter, 2022, 34, 075402.	1.8	6
69	The magneto-optical properties of Co-Ag granular films. Journal of Magnetism and Magnetic Materials, 1999, 198-199, 210-212.	2.3	5
70	Ultrahigh-resolution spectrometer based on 19 integrated gratings. Scientific Reports, 2019, 9, 10211.	3.3	5
71	Luminescence mechanism in hydrogenated silicon quantum dots with a single oxygen ligand. Nanoscale Advances, 2021, 3, 2245-2251.	4.6	5
72	Enhancement in photoelectric performance of dye-sensitized solar cells with inverted pyramid structures based on nanoimprint lithography. AIP Advances, 2021, 11, .	1.3	5

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73	Comparison Study of the Band-gap Structure of a 1D-Photonic Crystal by Using TMM and FDTD Analyses. Journal of the Korean Physical Society, 2011, 58, 1014-1020.	0.7	5
74	Giant Faraday magneto-optical effects induced by Mn ²⁺ in Zn _{1-x} MnxSe. Journal of Applied Physics, 1997, 81, 5154-5156.	2.5	4
75	Study of the new ellipsometric measurement method using integrated analyzer in parallel mode. Optics Express, 2009, 17, 8641.	3.4	4
76	Structural Characterization, Optical Properties, and Phase Transitions of In _x Sn _{1-x} Alloy Thin Films. Journal of Physical Chemistry C, 2016, 120, 7822-7828.	3.1	4
77	Effect of body defect on mechanical behaviors of Cu nanowire under tension: a molecular dynamics investigation. Journal of Materials Science, 2017, 52, 13237-13246.	3.7	4
78	Temperature dependence of structural, dynamical, and electronic properties of amorphous Bi ₂ Te ₃ : an ab initio study. New Journal of Physics, 2019, 21, 093062.	2.9	4
79	Characterization on Percolation of Nanostructured Silver Films by the Topological Properties of Spectroscopic Ellipsometric Parameter Trajectories. Journal of Physical Chemistry C, 2020, 124, 28306-28312.	3.1	4
80	STUDY ON THE PROPERTIES OF LIGHT PROPAGATION AT THE METAL INTERFACE. Hongwai Yu Haomibo Xuebao/Journal of Infrared and Millimeter Waves, 2009, 28, 31-34.	0.2	4
81	Optical Properties and Local Structure Evolution during Crystallization of Ga ₁₆ Sb ₈₄ Alloy. Scientific Reports, 2018, 8, 9605.	3.3	3
82	A High-Performance Spectrometer with Two Spectral Channels Sharing the Same BSI-CMOS Detector. Scientific Reports, 2018, 8, 12660.	3.3	3
83	Effect of Deposition Power on the Thermoelectric Performance of Bismuth Telluride Prepared by RF Sputtering. Crystals, 2020, 10, 552.	2.2	3
84	Microstructure-Induced Anisotropic Optical Properties of YF ₃ Columnar Thin Films Prepared by Glancing Angle Deposition. Nanomaterials, 2020, 10, 2413.	4.1	3
85	Characteristics of high energy N ⁺ -implanted damage in GaSb. Solid State Communications, 1995, 96, 593-596.	1.9	2
86	Ferromagnetic resonance studies of noble metals based sandwiches. Journal of Applied Physics, 1996, 79, 4949.	2.5	2
87	A study of optical characteristics of damage in oxygen-implanted 6H-SiC. Journal of Materials Science Letters, 1999, 18, 979-982.	0.5	2
88	The annealing effect on the magneto-optical properties of CoxAg _{100-x} granular films. Physica B: Condensed Matter, 2000, 279, 109-112.	2.7	2
89	Study of spectrum-splitting solar photovoltaic system. Proceedings of SPIE, 2011, , .	0.8	2
90	Study of Positive and Negative Refraction of Visible Light at the Cu/Air Interface. Journal of the Physical Society of Japan, 2011, 80, 084715.	1.6	2

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91	Study of the crystal structure, band gap and dispersion evolution in titanium oxide thin films. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2013, 210, 2374-2378.	1.8	2
92	Dynamics and Diffusion Mechanism of Low-Density Liquid Silicon. <i>Journal of Physical Chemistry B</i> , 2015, 119, 14945-14951.	2.6	2
93	High-accuracy and rapid azimuth calibration for polarizing elements in ellipsometry by differential spectral analysis on the ellipse azimuth. <i>Applied Optics</i> , 2021, 60, 1609.	1.8	2
94	Method for Analyzing the Measurement Error with Respect to Azimuth and Incident Angle for the Rotating Polarizer Analyzer Ellipsometer. <i>Crystals</i> , 2021, 11, 349.	2.2	2
95	Optical Properties of Solar Absorber Materials and Structures. <i>Topics in Applied Physics</i> , 2021, , 1-165.	0.8	2
96	Study of the Correlation of Plasma Resonance and the Refractive Index to Dielectric Dispersion in the Complex Plane. <i>Journal of the Optical Society of Korea</i> , 2013, 17, 27-32.	0.6	2
97	Thickness-dependent optical properties of yttrium fluoride ultrathin films in the visible band. <i>Optical Materials Express</i> , 2020, 10, 3306.	3.0	2
98	A new direct band gap Si ⁻⁶ Ge allotrope with advanced electronic and optical properties. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 16310-16316.	2.8	2
99	Magneto-optic properties in multilayers Fe ⁻⁶ Si/Cr and Co ⁻⁶ Nb/Pd. <i>Physica Status Solidi A</i> , 1995, 149, 733-739.	1.7	1
100	The Magnetic Coupling, Optical and Magneto-Optical Properties of Oscillation Observed in Sputtered Co ⁻⁶ Al/Cu Multilayers. <i>Physica Status Solidi A</i> , 1998, 167, 223-232.	1.7	1
101	Structural, magnetic and magneto-optical properties of Co _{1-x} Ni _x Pt ₃ alloy films with perpendicular anisotropy. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000, 271, 115-120.	2.1	1
102	DC-sputtered Pt ₃ (Co _{1-x} Ni _x) (x=0.4) alloy films at different ultra-high Ar pressure with perpendicular anisotropy. <i>Thin Solid Films</i> , 2001, 382, 235-239.	1.8	1
103	Spatial effect on the interference of light propagated in a film structure. <i>Applied Optics</i> , 2007, 46, 7049.	2.1	1
104	Lateral shift effect on the spatial interference of light wave propagating in the single-layered dielectric film. <i>Optics Express</i> , 2010, 18, 10524.	3.4	1
105	Approach to Error Analysis and Reduction for Rotating-Polarizer-Analyzer Ellipsometer. <i>Journal of the Physical Society of Japan</i> , 2012, 81, 124003.	1.6	1
106	Double layers of H ₂ adsorption on an AlN sheet induced by electric field. <i>Journal of Nanoparticle Research</i> , 2012, 14, 1.	1.9	1
107	Contribution of thickness dependent void fraction and TiSi ₂ O ₂ interlayer to the optical properties of amorphous TiO ₂ thin films. <i>Thin Solid Films</i> , 2013, 548, 275-279.	1.8	1
108	Temperature dependent optical properties of Si nanocrystals embedded in SiO ₂ matrix. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 114, 423-427.	2.3	1

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109	Strong optical absorption of a metallic film to induce a lensing effect in the visible region. Scientific Reports, 2019, 9, 12434.	3.3	1
110	High-Performance Ellipsometry With 2-D Expanded Channels for Spectroscopy and Polarization Analysis. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-8.	4.7	1
111	Optical properties, band structures, and phase transition of UO _{2+x} epitaxial films deposited by polymer-assisted deposition. AIP Advances, 2021, 11, 115107.	1.3	1
112	Polarization of Pd Atoms and Interlayer Coupling in Fe ¹⁰⁰ Si/Pd Multilayers. Physica Status Solidi A, 1996, 154, 735-742.	1.7	0
113	Analysis of implantation-induced damage and amorphization of GaSb. Physica Status Solidi A, 1996, 157, 57-63.	1.7	0
114	<title>Giant magnetoresistance effect in granular-type Co-Ag/Ag multilayers</title>. , 1998, 3175, 460.		0
115	Study of optical properties of metallic Au:SiO ₂ and Ni:SiO ₂ films. Journal of Magnetism and Magnetic Materials, 1999, 198-199, 587-589.	2.3	0
116	Magnetic and magneto-optical properties of DC-sputtered (CoPt ₃) _{1-x} Ni _x (x = 0-0.5) alloy films. Thin Solid Films, 2000, 368, 138-141.	1.8	0
117	The Joule loss profiles of different structure at two wavelengths in a double layered magneto-optical disk. Journal of Magnetism and Magnetic Materials, 2004, 269, 197-202.	2.3	0
118	Fabrication of IR Reflectors by Porous Silicon Technique. , 2006, , .		0
119	Ellipsometry and Its Applications in Stoichiometry. , 0, , .		0
120	A virtual optical encryption system based on polarization optics. Journal of the Korean Physical Society, 2012, 60, 1292-1296.	0.7	0
121	Structural characterization and optical properties of Sol-gel-derived polycrystalline Pb(Zr _{0.35} Ti _{0.65})O ₃ thin films. Journal of the Korean Physical Society, 2013, 63, 53-57.	0.7	0
122	3. Study of the characteristics of light propagating at the metal-based interface. , 2015, , 107-138.		0
123	An optical monitoring method for depositing dielectric layers of arbitrary thickness using reciprocal of transmittance. Optics Express, 2015, 23, 4703.	3.4	0
124	Study on Melting and Deflagration of Nanometer-Sized Indium Particle Thin Films by Temperature-Dependent Ellipsometry. Journal of Physical Chemistry C, 2020, 124, 13976-13981.	3.1	0
125	Advanced Spectrometer with Two Spectral Channels Sharing the Same BSI-CMOS Detector. , 2019, , .		0