

# Yu-Xiang Zheng

## List of Publications by Year in descending order

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125  
papers

1,928  
citations

279798

23  
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125  
docs citations

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times ranked

2668  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effects of interlayer coupling on the excitons and electronic structures of WS <sub>2</sub> /hBN/MoS <sub>2</sub> van der Waals heterostructures. Nano Research, 2022, 15, 2674-2681.	10.4	20
2	Neural network potential for Zr-Rh system by machine learning. Journal of Physics Condensed Matter, 2022, 34, 075402.	1.8	6
3	A new direct band gap Si-Ge allotrope with advanced electronic and optical properties. Physical Chemistry Chemical Physics, 2022, 24, 16310-16316.	2.8	2
4	Luminescence mechanism in hydrogenated silicon quantum dots with a single oxygen ligand. Nanoscale Advances, 2021, 3, 2245-2251.	4.6	5
5	A coma-free super-high resolution optical spectrometer using 44 high dispersion sub-gratings. Scientific Reports, 2021, 11, 1093.	3.3	7
6	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
7	High-accuracy and rapid azimuth calibration for polarizing elements in ellipsometry by differential spectral analysis on the ellipse azimuth. Applied Optics, 2021, 60, 1609.	1.8	2
8	Method for Analyzing the Measurement Error with Respect to Azimuth and Incident Angle for the Rotating Polarizer Analyzer Ellipsometer. Crystals, 2021, 11, 349.	2.2	2
9	Enhancement in photoelectric performance of dye-sensitized solar cells with inverted pyramid structures based on nanoimprint lithography. AIP Advances, 2021, 11, .	1.3	5
10	Optical Properties of Solar Absorber Materials and Structures. Topics in Applied Physics, 2021, , 1-165.	0.8	2
11	Optical properties, band structures, and phase transition of UO <sub>2+x</sub> epitaxial films deposited by polymer-assisted deposition. AIP Advances, 2021, 11, 115107.	1.3	1
12	Electronic and optical properties of hydrogen-terminated biphenylene nanoribbons: a first-principles study. Physical Chemistry Chemical Physics, 2021, 24, 357-365.	2.8	23
13	Ta Doping Effect on Structural and Optical Properties of InTe Thin Films. Nanomaterials, 2020, 10, 1887.	4.1	10
14	Effects of dielectric screening on the excitonic and critical points properties of WS <sub>2</sub> /MoS <sub>2</sub> heterostructures. Nanoscale, 2020, 12, 23732-23739.	5.6	19
15	Effect of Deposition Power on the Thermoelectric Performance of Bismuth Telluride Prepared by RF Sputtering. Crystals, 2020, 10, 552.	2.2	3
16	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
17	Microstructure-Induced Anisotropic Optical Properties of YF <sub>3</sub> Columnar Thin Films Prepared by Glancing Angle Deposition. Nanomaterials, 2020, 10, 2413.	4.1	3
18	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

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19	Study on Melting and Deflagration of Nanometer-Sized Indium Particle Thin Films by Temperature-Dependent Ellipsometry. <i>Journal of Physical Chemistry C</i> , 2020, 124, 13976-13981.	3.1	0
20	Thickness-dependent optical properties of yttrium fluoride ultrathin films in the visible band. <i>Optical Materials Express</i> , 2020, 10, 3306.	3.0	2
21	Ultra-high-resolution spectrometer based on 19 integrated gratings. <i>Scientific Reports</i> , 2019, 9, 10211.	3.3	5
22	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
23	Temperature dependence of structural, dynamical, and electronic properties of amorphous $\text{Bi}_2\text{Te}_3$ : an ab initio study. <i>New Journal of Physics</i> , 2019, 21, 093062.	2.9	4
24	Strong optical absorption of a metallic film to induce a lensing effect in the visible region. <i>Scientific Reports</i> , 2019, 9, 12434.	3.3	1
25	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
26	Ellipsometric study on optical properties of hydrogen plasma-treated aluminum-doped ZnO thin film. <i>Vacuum</i> , 2019, 163, 69-74.	3.5	28
27	Advanced Spectrometer with Two Spectral Channels Sharing the Same BSI-CMOS Detector. , 2019, , .		0
28	Evolution of short- and medium-range order in the melt-quenching amorphization of $\text{Ge}_2\text{Sb}_2\text{Te}_5$ . <i>Journal of Materials Chemistry C</i> , 2018, 6, 5001-5011.	5.5	38
29	Influence of interface layer on optical properties of sub-20 nm-thick $\text{TiO}_2$ films. <i>Journal Physics D: Applied Physics</i> , 2018, 51, 085301.	2.8	9
30	Structural signature and transition dynamics of $\text{Sb}_2\text{Te}_3$ melt upon fast cooling. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 11768-11775.	2.8	33
31	Multilayered metal-dielectric film structure for highly efficient solar selective absorption. <i>Materials Research Express</i> , 2018, 5, 066428.	1.6	24
32	Optical Properties and Local Structure Evolution during Crystallization of $\text{Ga}_{16}\text{Sb}_{84}$ Alloy. <i>Scientific Reports</i> , 2018, 8, 9605.	3.3	3
33	Optical properties of high photoluminescence silicon nanocrystals embedded in $\text{SiO}_2$ matrices obtained by annealing hydrogen silsesquioxane. <i>Optical Materials</i> , 2018, 84, 874-878.	3.6	6
34	A High-Performance Spectrometer with Two Spectral Channels Sharing the Same BSI-CMOS Detector. <i>Scientific Reports</i> , 2018, 8, 12660.	3.3	3
35	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
36	Dielectric functions and critical points of crystalline $\text{WS}_2$ ultrathin films with tunable thickness. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 12022-12031.	2.8	18

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37	High photon-to-heat conversion efficiency in the wavelength region of 250–1200 nm based on a thermoelectric Bi <sub>2</sub> Te <sub>3</sub> film structure. <i>Scientific Reports</i> , 2017, 7, 44614.	3.3	7
38	High efficient and wide-angle solar absorption with a multilayered metal-dielectric film structure. <i>Vacuum</i> , 2017, 146, 194-199.	3.5	18
39	Si-centered capped trigonal prism ordering in liquid Pd <sub>82</sub> Si <sub>18</sub> alloy study by first-principles calculations. <i>RSC Advances</i> , 2017, 7, 18093-18098.	3.6	9
40	Tunable broadband near-infrared absorber based on ultrathin phase-change material. <i>Optics Communications</i> , 2017, 403, 166-169.	2.1	20
41	Effect of body defect on mechanical behaviors of Cu nanowire under tension: a molecular dynamics investigation. <i>Journal of Materials Science</i> , 2017, 52, 13237-13246.	3.7	4
42	Structure-Dependent Optical Properties of Self-Organized Bi <sub>2</sub> Se <sub>3</sub> Nanostructures: From Nanocrystals to Nanoflakes. <i>ACS Applied Materials &amp; Interfaces</i> , 2017, 9, 29295-29301.	8.0	14
43	Ellipsometric study on temperature dependent optical properties of topological bismuth film. <i>Applied Surface Science</i> , 2017, 421, 899-904.	6.1	11
44	Optical properties of thickness-controlled MoS <sub>2</sub> thin films studied by spectroscopic ellipsometry. <i>Applied Surface Science</i> , 2017, 421, 884-890.	6.1	48
45	Tunable optical properties of co-sputtered Ti-SiO <sub>2</sub> nanocomposite thin films. <i>Optical Materials Express</i> , 2017, 7, 2387.	3.0	13
46	Enhancement of solar absorption by a surface-roughened metal-dielectric film structure. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 112301.	1.5	7
47	Effective method to study the thickness-dependent dielectric functions of nanometal thin film. <i>Optics Letters</i> , 2016, 41, 4907.	3.3	26
48	Fourier Transform Infrared Spectroscopy of Bisphenol A. <i>Journal of Spectroscopy</i> , 2016, 2016, 1-5.	1.3	32
49	Influence of hydration water on CH <sub>3</sub> NH <sub>3</sub> PbI <sub>3</sub> perovskite films prepared through one-step procedure. <i>Optics Express</i> , 2016, 24, A1431.	3.4	25
50	Optical constants of e-beam evaporated and annealed Nb <sub>2</sub> O <sub>5</sub> thin films with varying thickness. <i>Journal Physics D: Applied Physics</i> , 2016, 49, 265304.	2.8	8
51	Structural Characterization, Optical Properties, and Phase Transitions of In <sub>x</sub> Sn <sub>x</sub> Alloy Thin Films. <i>Journal of Physical Chemistry C</i> , 2016, 120, 7822-7828.	3.1	4
52	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
53	Thickness-dependent free-electron relaxation time of Au thin films in near-infrared region. <i>Journal of Nanophotonics</i> , 2016, 10, 033009.	1.0	8
54	Effects of Oxygen Impurities on Glass-Formation Ability in Zr <sub>2</sub> Cu Alloy. <i>Journal of Physical Chemistry B</i> , 2016, 120, 9223-9229.	2.6	18

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55	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
56	Effects of Al Doping on the Properties of ZnO Thin Films Deposited by Atomic Layer Deposition. <i>Nanoscale Research Letters</i> , 2016, 11, 407.	5.7	95
57	Raman spectroscopy of $\alpha$ -Bisphenol A <sup>TM</sup> . <i>Journal of Molecular Structure</i> , 2016, 1108, 649-653.	3.6	26
58	The thickness-dependent band gap and defect features of ultrathin ZrO <sub>2</sub> films studied by spectroscopic ellipsometry. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 3316-3321.	2.8	33
59	3. Study of the characteristics of light propagating at the metal-based interface. , 2015, , 107-138.		0
60	Local structure order in Pd <sub>78</sub> Cu <sub>6</sub> Si <sub>16</sub> liquid. <i>Scientific Reports</i> , 2015, 5, 8277.	3.3	26
61	Dynamics and Diffusion Mechanism of Low-Density Liquid Silicon. <i>Journal of Physical Chemistry B</i> , 2015, 119, 14945-14951.	2.6	2
62	Numerical simulations of multilevel impurity photovoltaic effect in the sulfur doped crystalline silicon. <i>Renewable Energy</i> , 2015, 77, 442-446.	8.9	17
63	Broadband optical absorption by tunable Mie resonances in silicon nanocone arrays. <i>Scientific Reports</i> , 2015, 5, 7810.	3.3	126
64	The impact of thickness and thermal annealing on refractive index for aluminum oxide thin films deposited by atomic layer deposition. <i>Nanoscale Research Letters</i> , 2015, 10, 46.	5.7	71
65	An optical monitoring method for depositing dielectric layers of arbitrary thickness using reciprocal of transmittance. <i>Optics Express</i> , 2015, 23, 4703.	3.4	0
66	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
67	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
68	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
69	Temperature dependent optical properties of Si nanocrystals embedded in SiO <sub>2</sub> matrix. <i>Applied Physics A: Materials Science and Processing</i> , 2014, 114, 423-427.	2.3	1
70	Bergman-type medium-range order in rapidly quenched Ag <sub>0.74</sub> Ge <sub>0.26</sub> eutectic alloy studied by ab initio molecular dynamics simulation. <i>Acta Materialia</i> , 2014, 80, 498-504.	7.9	17
71	Optical properties of epitaxial BiFeO <sub>3</sub> thin film grown on SrRuO <sub>3</sub> -buffered SrTiO <sub>3</sub> substrate. <i>Nanoscale Research Letters</i> , 2014, 9, 188.	5.7	29
72	Structural characterization and optical properties of Sol-gel-derived polycrystalline Pb(Zr <sub>0.35</sub> Ti <sub>0.65</sub> )O <sub>3</sub> thin films. <i>Journal of the Korean Physical Society</i> , 2013, 63, 53-57.	0.7	0

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73	Contribution of thickness dependent void fraction and TiSixOy interlayer to the optical properties of amorphous TiO2 thin films. Thin Solid Films, 2013, 548, 275-279.	1.8	1
74	Temperature-Dependent Optical Properties of Titanium Oxide Thin Films Studied by Spectroscopic Ellipsometry. Applied Physics Express, 2013, 6, 121101.	2.4	23
75	Thickness dependent optical properties of titanium oxide thin films. Applied Physics A: Materials Science and Processing, 2013, 113, 557-562.	2.3	21
76	Design of non-polarizing cut-off filters based on dielectric-metal-dielectric stacks. Optics Express, 2013, 21, 19163.	3.4	6
77	Study of the crystal structure, band gap and dispersion evolution in titanium oxide thin films. Physica Status Solidi (A) Applications and Materials Science, 2013, 210, 2374-2378.	1.8	2
78	Study of the Correlation of Plasma Resonance and the Refractive Index to Dielectric Dispersion in the Complex Plane. Journal of the Optical Society of Korea, 2013, 17, 27-32.	0.6	2
79	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
80	Approach to Error Analysis and Reduction for Rotating-Polarizer-Analyzer Ellipsometer. Journal of the Physical Society of Japan, 2012, 81, 124003.	1.6	1
81	Thickness-dependence of optical constants for Ta2O5 ultrathin films. Applied Physics A: Materials Science and Processing, 2012, 108, 975-979.	2.3	29
82	Double layers of H2 adsorption on an AlN sheet induced by electric field. Journal of Nanoparticle Research, 2012, 14, 1.	1.9	1
83	A virtual optical encryption system based on polarization optics. Journal of the Korean Physical Society, 2012, 60, 1292-1296.	0.7	0
84	Application of image spectrometer to in situ infrared broadband optical monitoring for thin film deposition. Optics Express, 2011, 19, 12969.	3.4	19
85	Study of spectrum-splitting solar photovoltaic system. Proceedings of SPIE, 2011, , .	0.8	2
86	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
87	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
88	Evolution of optical constants of silicon dioxide on silicon from ultrathin films to thick films. Journal Physics D: Applied Physics, 2010, 43, 445302.	2.8	23
89	Lateral shift effect on the spatial interference of light wave propagating in the single-layered dielectric film. Optics Express, 2010, 18, 10524.	3.4	1
90	Influence of nanocrystal size on dielectric functions of Si nanocrystals embedded in SiO2 matrix. Applied Physics Letters, 2009, 95, .	3.3	38

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91	Study of the new ellipsometric measurement method using integrated analyzer in parallel mode. Optics Express, 2009, 17, 8641.	3.4	4
92	Path-folded infrared spectrometer consisting of 10 sub-gratings and a two-dimensional InGaAs detector. Optics Express, 2009, 17, 14956.	3.4	7
93	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
94	Negative refraction at the pure Ag/air interface observed in the visible Drude region. Applied Physics Letters, 2008, 93, 071910.	3.3	8
95	Experimental observation of light refraction going from negative to positive in the visible region at the pure air/Au interface. Physical Review B, 2008, 77, .	3.2	10
96	Study of the Optical Properties of Bi <sub>3.15</sub> Nd <sub>0.85</sub> Ti <sub>3</sub> O <sub>12</sub> Ferroelectric Thin Films. Journal of the Korean Physical Society, 2008, 53, 2299-2302.	0.7	9
97	High solar absorption of a multilayered thin film structure. Optics Express, 2007, 15, 1907.	3.4	62
98	Phase change characteristics of aluminum doped Ge <sub>2</sub> Sb <sub>2</sub> Te <sub>5</sub> films prepared by magnetron sputtering. Optics Express, 2007, 15, 10584.	3.4	22
99	Spatial effect on the interference of light propagated in a film structure. Applied Optics, 2007, 46, 7049.	2.1	1
100	Optical properties of cubic Ti <sub>3</sub> N <sub>4</sub> , Zr <sub>3</sub> N <sub>4</sub> , and Hf <sub>3</sub> N <sub>4</sub> . Applied Physics Letters, 2006, 89, 151908.	3.3	103
101	Fabrication of IR Reflectors by Porous Silicon Technique. , 2006, , .		0
102	Study of a high-resolution infrared spectrometer by using an integrated multigrating structure. Review of Scientific Instruments, 2005, 76, 083118.	1.3	8
103	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
104	Concentration and size dependence of optical properties of Ag:Bi <sub>2</sub> O <sub>3</sub> composite films by using the co-sputtering method. Thin Solid Films, 2004, 455-456, 605-608.	1.8	14
105	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
106	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
107	DC-sputtered Pt <sub>3</sub> (Co <sub>1-x</sub> Ni <sub>x</sub> ) (x=0.4) alloy films at different ultra-high Ar pressure with perpendicular anisotropy. Thin Solid Films, 2001, 382, 235-239.	1.8	1
108	Magnetic and magneto-optical properties of DC-sputtered (CoPt <sub>3</sub> ) <sub>1-x</sub> Ni <sub>x</sub> (x=0~0.5) alloy films. Thin Solid Films, 2000, 368, 138-141.	1.8	0

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109	The annealing effect on the magneto-optical properties of Co <sub>100-x</sub> granular films. <i>Physica B: Condensed Matter</i> , 2000, 279, 109-112.	2.7	2
110	Structural, magnetic and magneto-optical properties of Co <sub>1-x</sub> Ni <sub>x</sub> Pt <sub>3</sub> alloy films with perpendicular anisotropy. <i>Physics Letters, Section A: General, Atomic and Solid State Physics</i> , 2000, 271, 115-120.	2.1	1
111	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
112	Study of the Kerr effect of Co <sub>100-x</sub> granular films. <i>Journal of Applied Physics</i> , 1999, 85, 5121-5123.	2.5	24
113	A study of optical characteristics of damage in oxygen-implanted 6H-SiC. <i>Journal of Materials Science Letters</i> , 1999, 18, 979-982.	0.5	2
114	The magneto-optical properties of Co <sub>100-x</sub> Ag granular films. <i>Journal of Magnetism and Magnetic Materials</i> , 1999, 198-199, 210-212.	2.3	5
115	Study of optical properties of metallic Au:SiO <sub>2</sub> and Ni:SiO <sub>2</sub> films. <i>Journal of Magnetism and Magnetic Materials</i> , 1999, 198-199, 587-589.	2.3	0
116	The Magnetic Coupling, Optical and Magneto-Optical Properties of Oscillation Observed in Sputtered Co <sub>100-x</sub> Al <sub>x</sub> /Cu Multilayers. <i>Physica Status Solidi A</i> , 1998, 167, 223-232.	1.7	1
117	<title>Giant magnetoresistance effect in granular-type Co-Ag/Ag multilayers</title> . , 1998, 3175, 460.		0
118	Giant Faraday magneto-optical effects induced by Mn <sup>2+</sup> in Zn <sub>1-x</sub> Mn <sub>x</sub> Se. <i>Journal of Applied Physics</i> , 1997, 81, 5154-5156.	2.5	4
119	Polarization of Pd Atoms and Interlayer Coupling in Fe <sub>100-x</sub> Si <sub>x</sub> /Pd Multilayers. <i>Physica Status Solidi A</i> , 1996, 154, 735-742.	1.7	0
120	Analysis of implantation-induced damage and amorphization of GaSb. <i>Physica Status Solidi A</i> , 1996, 157, 57-63.	1.7	0
121	Ferromagnetic resonance studies of noble metals based sandwiches. <i>Journal of Applied Physics</i> , 1996, 79, 4949.	2.5	2
122	Magneto-optic properties in multilayers Fe <sub>100-x</sub> Si <sub>x</sub> /Cr and Co <sub>100-x</sub> Nb <sub>x</sub> /Pd. <i>Physica Status Solidi A</i> , 1995, 149, 733-739.	1.7	1
123	Characteristics of high energy N <sup>+</sup> -implanted damage in GaSb. <i>Solid State Communications</i> , 1995, 96, 593-596.	1.9	2
124	Optical transition properties of FeSi <sub>2</sub> film. <i>Applied Physics Letters</i> , 1994, 65, 3105-3107.	3.3	37
125	Ellipsometry and Its Applications in Stoichiometry. , 0, , .		0