## Zhengyi Fu

## List of Publications by Year in descending order

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103	2,043	24 h-index	39
papers	citations		g-index
103	103	103	1641
all docs	docs citations	times ranked	citing authors

#	Article	lF	CITATIONS
1	Bio-inspired high-efficiency photosystem by synergistic effects of core-shell structured Au@CdS nanoparticles and their engineered location on {001} facets of SrTiO3 nanocrystals. Journal of Materials Science and Technology, 2023, 136, 159-168.	10.7	2
2	Novel transparent ZnO·3Al2O3 ceramics prepared by reactive hot isostatic pressing. Journal of the European Ceramic Society, 2022, 42, 724-728.	5 <b>.</b> 7	2
3	Investigation of the structural characteristics, dielectric properties, and infrared reflectivity spectra of AlON transparent ceramics. Journal of the European Ceramic Society, 2022, 42, 1362-1369.	5.7	6
4	Enhanced Mechanical Properties and Oxidation Resistance of Zirconium Diboride Ceramics via Grainâ€Refining and Dislocation Regulation. Advanced Science, 2022, 9, e2104532.	11.2	10
5	Compositional tailoring effect on crystal structure, mechanical and thermal properties of Î <sup>3</sup> -AlON transparent ceramics. Journal of the European Ceramic Society, 2022, 42, 2983-2993.	5.7	8
6	All-vacuum deposited perovskite solar cells with glycine modified NiO <sub><i>x</i></sub> hole-transport layers. RSC Advances, 2022, 12, 10863-10869.	3.6	7
7	Room-temperature growth of fluorapatite/CaCO <sub>3</sub> heterogeneous structured composites inspired by human tooth. RSC Advances, 2022, 12, 11084-11089.	3.6	O
8	Elasticity of Nonstoichiometric Alumina-Rich Spinel Determined by Bond Valence Theory and Brillouin Scattering. Inorganic Chemistry, 2022, 61, 4743-4751.	4.0	0
9	Mineralization generates megapascal contractile stresses in collagen fibrils. Science, 2022, 376, 188-192.	12.6	70
10	Polyvinyl Alcohol/Graphene Oxide Conductive Hydrogels via the Synergy of Freezing and Salting Out for Strain Sensors. Sensors, 2022, 22, 3015.	3.8	27
11	Highly transparent MgAl0.5Ga1.5O4 ceramic for overcoming the trade-off between infrared transmittance and mechanical properties. Scripta Materialia, 2022, 216, 114756.	5.2	2
12	Nanocage Ferritin Reinforced Polyacrylamide Hydrogel for Wearable Flexible Strain Sensors. ACS Applied Materials & Diterfaces, 2022, 14, 21278-21286.	8.0	30
13	Bioinspired celluloseâ€integrated MXeneâ€based hydrogels for multifunctional sensing and electromagnetic interference shielding. , 2022, 1, 495-506.		36
14	Crystal structure and luminescence mechanism of novel Fe <sup>3+</sup> â€doped Mg <sub>0.752</sub> Al <sub>2.165</sub> O <sub>4</sub> deep redâ€emitting phosphors. Journal of the American Ceramic Society, 2022, 105, 5783-5792.	3.8	7
15	Multiple crystallization pathways of amorphous calcium carbonate in the presence of poly(aspartic) Tj ETQq $1\ 1\ 0$	0.784314 2.6	rgBT /Overl <mark>oc</mark> l
16	Highly efficient synthesis of boron nitride nanotubes by catalytic chemical vapor deposition of boron/nickel containing precursors. Journal of Materiomics, 2022, 8, 1199-1204.	5.7	5
17	Biotemplating synthesis of organized structures inspired by biological processes. Giant, 2022, 11, 100108.	5.1	6
18	Mechanically Reinforced Artificial Enamel by Mg <sup>2+</sup> -Induced Amorphous Intergranular Phases. ACS Nano, 2022, 16, 10422-10430.	14.6	8

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19	Densification mechanism and microstructure characteristics of nano- and micro- crystalline alumina by high-pressure and low temperature sintering. Journal of the European Ceramic Society, 2021, 41, 635-645.	5.7	33
20	Bioprocess-inspired preparation of silica with varied morphologies and potential in lithium storage. Journal of Materials Science and Technology, 2021, 72, 61-68.	10.7	7
21	Investigation on composition-dependent properties of Mg5Al23â^'5O27+5N5â^'5 (0 ≤ ≤): Part I. optical properties via first-principles calculations. Journal of the European Ceramic Society, 2021, 41, 1543-1549.	5.7	4
22	Bioprocess-inspired synthesis of multilayered chitosan/CaCO <sub>3</sub> composites with nacre-like structures and high mechanical properties. Journal of Materials Chemistry B, 2021, 9, 5691-5697.	5.8	3
23	Mineralization of calcium phosphate induced by a silk fibroin film under different biological conditions. RSC Advances, 2021, 11, 18590-18596.	3.6	2
24	Escherichia coli templated iron oxide biomineralization under oscillation. RSC Advances, 2021, 11, 15010-15016.	3.6	2
25	Theoretical study on compositionâ€dependent properties of ZnO· n Al 2 O 3 spinels. Part I: Optical and dielectric. Journal of the American Ceramic Society, 2021, 104, 5099-5109.	3.8	5
26	Bioprocess-Inspired Room-Temperature Synthesis of Enamel-like Fluorapatite/Polymer Nanocomposites Controlled by Magnesium Ions. ACS Applied Materials & Samp; Interfaces, 2021, 13, 25260-25269.	8.0	15
27	Bioprocess-inspired Fabrication of Lead Iodide Coexisting with Crystalline Nanosheet and Amorphous Nanorod for Perovskite Solar Cells. Journal Wuhan University of Technology, Materials Science Edition, 2021, 36, 358-363.	1.0	0
28	A prediction model of thermal expansion coefficient for cubic inorganic crystals by the bond valence model. Journal of Solid State Chemistry, 2021, 299, 122111.	2.9	13
29	Sintering and densification mechanisms of tantalum carbide ceramics. Journal of the European Ceramic Society, 2021, 41, 7469-7477.	5.7	15
30	Theoretical study on compositionâ€dependent properties of ZnO·⟨i⟩n⟨ i⟩Al⟨sub⟩2⟨ sub⟩O⟨sub⟩3⟨ sub⟩ spinels. Part II: Mechanical and thermophysical. Journal of the American Ceramic Society, 2021, 104, 6455-6466.	3.8	10
31	A new quaternary Li0.19Al2.72O3.64N0.36 transparent ceramic with high hardness. Scripta Materialia, 2021, 199, 113837.	5.2	6
32	Effect of nitrogen content on optical properties of transparent $\hat{I}^3$ -AlON polycrystalline ceramics. Journal of the European Ceramic Society, 2021, 41, 4319-4326.	5.7	15
33	Oriented Strontium Carbonate Nanocrystals within Collagen Films for Flexible Piezoelectric Sensors. Advanced Functional Materials, 2021, 31, 2105806.	14.9	8
34	Investigation on composition-dependent properties of Mg5Al23â~'5O27+5N5â~'5 (0 ≤ ≤): Part II. Mechanical properties via first-principles calculations combined with bond valence models. Journal of the European Ceramic Society, 2021, 41, 4942-4950.	5.7	5
35	Biotemplating synthesis of rod-shaped tin sulfides assembled by interconnected nanosheets for energy storage. Journal of Power Sources, 2021, 506, 230180.	7.8	7
36	Bioprocess-inspired synthesis of printable, self-healing mineral hydrogels for rapidly responsive, wearable ionic skin. Chemical Engineering Journal, 2021, 424, 130549.	12.7	33

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37	A novel durable spinel-type ZnGa2O4 transparent ceramic with wide transmission range. Scripta Materialia, 2021, 205, 114186.	5.2	6
38	Growth of mineralized collagen films by oriented calcium fluoride nanocrystal assembly with enhanced cell proliferation. Journal of Materials Chemistry B, 2021, 9, 6668-6677.	5.8	6
39	Rapid collagen-directed mineralization of calcium fluoride nanocrystals with periodically patterned nanostructures. Nanoscale, 2021, 13, 8293-8303.	5.6	11
40	Bioinspired 3D Printable, Self-Healable, and Stretchable Hydrogels with Multiple Conductivities for Skin-like Wearable Strain Sensors. ACS Applied Materials & Strain	8.0	125
41	Nonclassical Crystallization of Amorphous Calcium Carbonate in the Presence of Phosphate Ions. Crystal Growth and Design, 2021, 21, 414-423.	3.0	21
42	Silk fibroin directs the formation of monetite nanocrystals and their assembly into hierarchical composites. Journal of Materials Chemistry B, 2021, 9, 9136-9141.	5.8	2
43	Fabrication and properties of highly transparent Li0.07Al2.76O3.64N0.36 ceramics by aqueous gelcasting and two-step preparation. Ceramics International, 2021, 48, 6608-6608.	4.8	2
44	Preparation and characterization of reduced graphene oxide-reinforced boron carbide ceramics by self-assembly polymerization and spark plasma sintering. Journal of the European Ceramic Society, 2020, 40, 612-621.	5.7	19
45	Bioprocessâ€Inspired Microscale Additive Manufacturing of Multilayered TiO <sub>2</sub> /Polymer Composites with Enamelâ€Like Structures and High Mechanical Properties. Advanced Functional Materials, 2020, 30, 1904880.	14.9	33
46	A novel spinel-type Mg0.55Al2.36O3.81N0.19 transparent ceramic with infrared transmittance range comparable to c-plane sapphire. Scripta Materialia, 2020, 178, 428-432.	5.2	25
47	Sintering highly dense ultra-high temperature ceramics with suppressed grain growth. Journal of the European Ceramic Society, 2020, 40, 1086-1092.	5.7	22
48	The microstructural origin of rapid densification in 3YSZ during ultra-fast firing with or without an electric field. Journal of the European Ceramic Society, 2020, 40, 5829-5836.	5.7	40
49	Structural Study of MgyAl(8+x–2y)/3O4–xNx (0 < x < 0.5, 0 < y < 1) Spinel Probed by X-ray Diffraction, 27Al MAS NMR, and First-Principles Calculations. Inorganic Chemistry, 2020, 59, 17009-17017.	4.0	9
50	Hierarchically structured porous materials: synthesis strategies and applications in energy storage. National Science Review, 2020, 7, 1667-1701.	9.5	164
51	Particle-attachment crystallization facilitates the occlusion of micrometer-sized <i>Escherichia coli</i> in calcium carbonate crystals with stable fluorescence. Journal of Materials Chemistry B, 2020, 8, 9269-9276.	5.8	8
52	Aqueous Sn-S Complex Derived Electron Selective Layer for Perovskite Solar Cells. Journal Wuhan University of Technology, Materials Science Edition, 2020, 35, 272-279.	1.0	1
53	Largeâ€scale synthesis and growth mechanism of boron nitride nanocomposite assembled by nanosheets and nanotubes. Journal of the American Ceramic Society, 2020, 103, 5594-5598.	3.8	4
54	Surface-diffusion mechanism for synthesis of substrate-free and catalyst-free boron nitride nanosheets. Journal of the European Ceramic Society, 2020, 40, 5324-5331.	5.7	10

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55	Synthesis of monodisperse rod-shaped silica particles through biotemplating of surface-functionalized bacteria. Nanoscale, 2020, 12, 8732-8741.	<b>5.</b> 6	10
56	Microstructure and anisotropic mechanical properties of B6.5C-TiB2-SiC-BN composites fabricated by reactive hot pressing. Journal of the European Ceramic Society, 2020, 40, 2862-2869.	5.7	13
57	Theoretical study on composition―and pressureâ€dependent mechanical properties of AlON solid solution. Journal of the American Ceramic Society, 2020, 103, 4390-4401.	3.8	8
58	Sintering dense nanocrystalline 3YSZ ceramics without grain growth by plastic deformation as dominating mechanism. Ceramics International, 2019, 45, 9363-9367.	4.8	18
59	TEM characterization of a Supra-Nano-Dual-Phase binder phase in spark plasma sintered TiB2–5†wt%HEAs cermet. Ceramics International, 2019, 45, 9401-9405.	4.8	7
60	Stable Pd@Cu Core–Shell Nanocubes with Finely Tuned Sizes for the Reduction of Nitroaromatics. ACS Applied Nano Materials, 2019, 2, 4584-4593.	5.0	11
61	The Impact Failure and Energy Dissipation Mechanism of Polyethylene Laminates. Journal Wuhan University of Technology, Materials Science Edition, 2019, 34, 723-727.	1.0	1
62	Photosynthesis-Inspired Acceleration of Carrier Separation: Co–O–Ac and CH3COO– lons Synergistically Enhanced Photocatalytic Hydrogen Evolution of Graphitic Carbon Nitride. ACS Sustainable Chemistry and Engineering, 2019, , .	6.7	0
63	Defect-induced formation mechanism for boron nitride nanosheets-nanotubes hybrid structures. Scripta Materialia, 2019, 171, 16-20.	5.2	8
64	A bio-inspired strategy for enhanced hydrogen evolution: carbonate ions as hole vehicles to promote carrier separation. Nanoscale, 2019, 11, 11451-11456.	5.6	10
65	Highly transparent Mg <sub>0.27</sub> Al <sub>2.58</sub> O <sub>3.73</sub> N <sub>0.27</sub> ceramic fabricated by aqueous gelcasting, pressureless sintering, and postâ€HIP. Journal of the American Ceramic Society, 2019, 102, 6507-6516.	3.8	16
66	Bioprocess-inspired fabrication of materials with new structures and functions. Progress in Materials Science, 2019, 105, 100571.	32.8	76
67	Predicting properties of MgO· <i>n</i> Al <sub>2</sub> O <sub>3</sub> by firstâ€principles calculation combined with bond valence models. Journal of the American Ceramic Society, 2019, 102, 6913-6924.	3.8	6
68	Effect of pretreated microstructure on subsequent sintering performance of MgAl2O4 ceramics. Ceramics International, 2019, 45, 7544-7551.	4.8	10
69	Organized Arrangement of Calcium Carbonate Crystals, Directed by a Rationally Designed Protein. Crystal Growth and Design, 2018, 18, 3576-3583.	3.0	9
70	Preparation of transparent MgO·1.8Al2O3 spinel ceramics by aqueous gelcasting, presintering and hot isostatic pressing. Journal of the European Ceramic Society, 2018, 38, 4057-4063.	5.7	25
71	Pressureâ€enhanced densification of TaC ceramics during flash spark plasma sintering. Journal of the American Ceramic Society, 2018, 102, 98.	3.8	11
72	Urchin-like boron nitride hierarchical structure assembled by nanotubes-nanosheets for effective removal of heavy metal ions. Ceramics International, 2018, 44, 12216-12224.	4.8	34

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73	Magic Angle Spinning NMR Study on Inversion Behavior and Vacancy Disorder in Alumina-Rich Spinel. Inorganic Chemistry, 2018, 57, 8390-8395.	4.0	10
74	Preparation and Characterization of TiB2-(Supra-Nano-Dual-Phase) High-Entropy Alloy Cermet by Spark Plasma Sintering. Metals, 2018, 8, 58.	2.3	11
75	Synthesis, densification, and microstructure of TaCâ€TaB <sub>2</sub> â€SiC ceramics. Journal of the American Ceramic Society, 2018, 101, 5400-5410.	3.8	14
76	Synthesis of ultra-fine tantalum carbide powders by a combinational method of sol–gel and spark plasma sintering. Ceramics International, 2018, 44, 19106-19112.	4.8	16
77	Mn2+ activated MgAlON transparent ceramic: A new green-emitting transparent ceramic phosphor for high-power white LED. Journal of the European Ceramic Society, 2017, 37, 4229-4233.	5.7	51
78	Novel synthesis approaches for new structures in confined space inspired by natural structure-forming processes. Journal of Materiomics, 2017, 3, 83-95.	5.7	8
79	A simple bulk modulus model for crystal materials based on the bond valence model. Physical Chemistry Chemical Physics, 2017, 19, 22177-22189.	2.8	12
80	Combining 27Al Solid-State NMR and First-Principles Simulations To Explore Crystal Structure in Disordered Aluminum Oxynitride. Inorganic Chemistry, 2016, 55, 12930-12937.	4.0	19
81	Characterization in activators' distribution and photoluminescence properties of Ce3+ doped MgAlON transparent fluorescent ceramic. Journal of the European Ceramic Society, 2016, 36, 2801-2805.	5.7	13
82	Confined-space synthesis of nanostructured anatase, directed by genetically engineered living organisms for lithium-ion batteries. Chemical Science, 2016, 7, 6330-6336.	7.4	28
83	Simple Method for the Hardness Estimation of Inorganic Crystals by the Bond Valence Model. Inorganic Chemistry, 2016, 55, 11089-11095.	4.0	17
84	Musselâ€Directed Synthesis of Nitrogenâ€Doped Anatase TiO <sub>2</sub> . Angewandte Chemie - International Edition, 2016, 55, 3031-3035.	13.8	33
85	Theoretical predictions of composition-dependent structure and properties of alumina-rich spinel. Journal of the European Ceramic Society, 2016, 36, 1073-1079.	5.7	20
86	Microstructural refinement in spark plasma sintering 3Y-TZP nanoceramics. Journal of the European Ceramic Society, 2016, 36, 2565-2571.	5.7	18
87	Ultra-fast densification of boron carbide by flash spark plasma sintering. Scripta Materialia, 2016, 116, 127-130.	5.2	72
88	Confinement controlled mineralization of calcium carbonate within collagen fibrils. Journal of Materials Chemistry B, 2016, 4, 880-886.	5.8	29
89	Sintering boron carbide ceramics without grain growth by plastic deformation as the dominant densification mechanism. Scientific Reports, 2015, 5, 15827.	3.3	103
90	Novel divalent europium doped MgAlON transparent ceramic for shortwave ultraviolet erasable windows. Scripta Materialia, 2015, 105, 30-33.	5.2	22

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91	Organized intrafibrillar mineralization, directed by a rationally designed multi-functional protein. Journal of Materials Chemistry B, 2015, 3, 4496-4502.	5.8	31
92	Bioprocess-inspired synthesis of hierarchically porous nitrogen-doped TiO <sub>2</sub> with high visible-light photocatalytic activity. Journal of Materials Chemistry A, 2015, 3, 19588-19596.	10.3	41
93	Fabrication and properties of TiB2-based cermets by spark plasma sintering with CoCrFeNiTiAl high-entropy alloy as sintering aid. Journal of the European Ceramic Society, 2015, 35, 879-886.	5.7	62
94	Firstâ€Principles Insight into the Compositionâ€Dependent Structure and Properties of γâ€Alon. Journal of the American Ceramic Society, 2014, 97, 2996-3003.	3.8	24
95	Composition-dependent bonding and hardness of $\hat{I}^3$ -aluminum oxynitride: A first-principles investigation. Journal of Applied Physics, 2014, 115, 223511.	2.5	14
96	Grain growth stagnation in the dense nanocrystalline yttria prepared by combustion reaction and quick pressing with an ultra-high heating rate. Journal of the European Ceramic Society, 2014, 34, 2475-2482.	5.7	7
97	Highly Transparent <scp><scp>Mg</scp></scp> <scb>&lt;0.27<scp><scp>Al</scp></scp><sub>2.58</sub><scp><scp>O</scp> Ceramic Prepared by Pressureless Sintering. Journal of the American Ceramic Society, 2014, 97, 63-66.</scp></scb>	• < <b>/3c</b> 8 > < si	ub <b>⊭3.7</b> 3
98	Chemical Composition, Crystal Structure, and Their Relationships with the Intrinsic Properties of Spinel-Type Crystals Based on Bond Valences. Inorganic Chemistry, 2014, 53, 5986-5992.	4.0	32
99	Firstâ€Principles Study on Site Preference of Aluminum Vacancy and Nitrogen Atoms in γ–Alon. Journal of the American Ceramic Society, 2013, 96, 1937-1943.	3.8	34
100	The nature of grain boundaries in alumina fabricated by fast sintering. Scripta Materialia, 2010, 62, 658-661.	5.2	55
101	Full densification of zirconium carbide ceramics sintered under high pressure at low temperature. International Journal of Applied Ceramic Technology, 0, , .	2.1	6
102	Mussel directed synthesis of SnO2/graphene oxide composite for energy storage. Materials Chemistry Frontiers, 0, , .	5.9	2
103	ZnO·2.7Al 2 O 3 Nanocomposite with high optical transparency. Journal of the American Ceramic Society, 0, , .	3.8	О