

Wei Tan

List of Publications by Year in descending order

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109
papers

3,778
citations

94433

37
h-index

149698

56
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112
all docs

112
docs citations

112
times ranked

3897
citing authors

#	ARTICLE	IF	CITATIONS
1	Predicting low velocity impact damage and Compression-After-Impact (CAI) behaviour of composite laminates. <i>Composites Part A: Applied Science and Manufacturing</i> , 2015, 71, 212-226.	7.6	344
2	Experimental and numerical studies on the impact response of damage-tolerant hybrid unidirectional/woven carbon-fibre reinforced composite laminates. <i>Composites Part B: Engineering</i> , 2018, 136, 101-118.	12.0	137
3	Evaluation of composition and crosslinking effects on collagen-based composite constructs. <i>Acta Biomaterialia</i> , 2010, 6, 1413-1422.	8.3	117
4	Human mesenchymal stem cells cultured on silk hydrogels with variable stiffness and growth factor differentiate into mature smooth muscle cell phenotype. <i>Acta Biomaterialia</i> , 2016, 31, 156-166.	8.3	107
5	Insight into the SO ₂ resistance mechanism on γ -Fe ₂ O ₃ catalyst in NH ₃ -SCR reaction: A collaborated experimental and DFT study. <i>Applied Catalysis B: Environmental</i> , 2021, 281, 119544.	20.2	107
6	High Pulsatility Flow Induces Adhesion Molecule and Cytokine mRNA Expression in Distal Pulmonary Artery Endothelial Cells. <i>Annals of Biomedical Engineering</i> , 2009, 37, 1082-1092.	2.5	93
7	Morphology and Crystal-Plane Effects of CeO ₂ on TiO ₂ /CeO ₂ Catalysts during NH ₃ -SCR Reaction. <i>Industrial & Engineering Chemistry Research</i> , 2018, 57, 12407-12419.	3.7	90
8	Predicting the Compression-After-Impact (CAI) strength of damage-tolerant hybrid unidirectional/woven carbon-fibre reinforced composite laminates. <i>Composites Part A: Applied Science and Manufacturing</i> , 2018, 105, 189-202.	7.6	86
9	Multimodal medical image fusion algorithm in the era of big data. <i>Neural Computing and Applications</i> , 0, , 1.	5.6	84
10	Modelling the crush behaviour of thermoplastic composites. <i>Composites Science and Technology</i> , 2016, 134, 57-71.	7.8	83
11	Pore Size Expansion Accelerates Ammonium Bisulfate Decomposition for Improved Sulfur Resistance in Low-Temperature NH ₃ -SCR. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 4900-4907.	8.0	81
12	Highly Compliant Vascular Grafts with Gelatin-Sheathed Coaxially Structured Nanofibers. <i>Langmuir</i> , 2015, 31, 12993-13002.	3.5	72
13	Gas phase sulfation of ceria-zirconia solid solutions for generating highly efficient and SO ₂ resistant NH ₃ -SCR catalysts for NO removal. <i>Journal of Hazardous Materials</i> , 2020, 388, 121729.	12.4	72
14	Modelling the nonlinear behaviour and fracture process of AS4/PEKK thermoplastic composite under shear loading. <i>Composites Science and Technology</i> , 2016, 126, 60-77.	7.8	71
15	High-performance flexible strain sensors based on biaxially stretched conductive polymer composites with carbon nanotubes immobilized on reduced graphene oxide. <i>Composites Part A: Applied Science and Manufacturing</i> , 2021, 151, 106665.	7.6	70
16	Ce-Si Mixed Oxide: A High Sulfur Resistant Catalyst in the NH ₃ -SCR Reaction through the Mechanism-Enhanced Process. <i>Environmental Science & Technology</i> , 2021, 55, 4017-4026.	10.0	66
17	Vascular Stiffening in Pulmonary Hypertension: Cause or Consequence? (2013 Grover Conference) Tj ETQq1 1 0.784314 rgBT /Overlock 1.7 63		
18	Infrared and visible image perceptive fusion through multi-level Gaussian curvature filtering image decomposition. <i>Applied Optics</i> , 2019, 58, 3064.	1.8	63

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19	Mechanics and Function of the Pulmonary Vasculature: Implications for Pulmonary Vascular Disease and Right Ventricular Function. , 2012, 2, 295-319.		61
20	Silk Hydrogels of Tunable Structure and Viscoelastic Properties Using Different Chronological Orders of Genipin and Physical Cross-Linking. ACS Applied Materials & Interfaces, 2015, 7, 12099-12108.	8.0	60
21	Orthogonal programming of heterogeneous micro-mechano-environments and geometries in three-dimensional bio-stereolithography. Nature Communications, 2018, 9, 4096.	12.8	58
22	Multi-modal brain image fusion based on multi-level edge-preserving filtering. Biomedical Signal Processing and Control, 2021, 64, 102280.	5.7	57
23	Phase field predictions of microscopic fracture and R-curve behaviour of fibre-reinforced composites. Composites Science and Technology, 2021, 202, 108539.	7.8	55
24	Predicting the crushing behaviour of composite material using high-fidelity finite element modelling. International Journal of Crashworthiness, 2015, 20, 60-77.	1.9	54
25	Development and evaluation of microdevices for studying anisotropic biaxial cyclic stretch on cells. Biomedical Microdevices, 2008, 10, 869-882.	2.8	51
26	Reverse Adhesion of a Gecko-Inspired Synthetic Adhesive Switched by an Ion-Exchange Polymerâ€Metal Composite Actuator. ACS Applied Materials & Interfaces, 2015, 7, 5480-5487.	8.0	51
27	Pulmonary Arterial Stiffness: Toward a New Paradigm in Pulmonary Arterial Hypertension Pathophysiology and Assessment. Current Hypertension Reports, 2016, 18, 4.	3.5	51
28	A highly porous nafion membrane templated from polyoxometalates-based supramolecule composite for ion-exchange polymer-metal composite actuator. Journal of Materials Chemistry, 2010, 20, 10159.	6.7	50
29	High pulsatility flow stimulates smooth muscle cell hypertrophy and contractile protein expression. American Journal of Physiology - Lung Cellular and Molecular Physiology, 2013, 304, L70-L81.	2.9	49
30	Copper Single Atom-Triggered Niobiaâ€Ceria Catalyst for Efficient Low-Temperature Reduction of Nitrogen Oxides. ACS Catalysis, 2022, 12, 2441-2453.	11.2	48
31	The role of material characterisation in the crush modelling of thermoplastic composite structures. Composite Structures, 2016, 153, 914-927.	5.8	47
32	Coaxially-structured fibres with tailored material properties for vascular graft implant. Materials Science and Engineering C, 2019, 97, 1-11.	7.3	46
33	Mo doping as an effective strategy to boost low temperature NH3-SCR performance of CeO2/TiO2 catalysts. Catalysis Communications, 2018, 114, 10-14.	3.3	44
34	Enhanced low-temperature NH3-SCR performance of CeTiO catalyst via surface Mo modification. Chinese Journal of Catalysis, 2020, 41, 364-373.	14.0	44
35	Synergism of Matrix Stiffness and Vascular Endothelial Growth Factor on Mesenchymal Stem Cells for Vascular Endothelial Regeneration. Tissue Engineering - Part A, 2014, 20, 2503-2512.	3.1	43
36	Revealing the effect of paired redox-acid sites on metal oxide catalysts for efficient NO removal by NH3-SCR. Journal of Hazardous Materials, 2021, 416, 125826.	12.4	43

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37	Influence of CeO ₂ loading on structure and catalytic activity for NH ₃ -SCR over TiO ₂ -supported CeO ₂ . Journal of Rare Earths, 2020, 38, 883-890.	4.8	42
38	High Pulsatility Flow Induces Acute Endothelial Inflammation Through Overpolarizing Cells to Activate NF- κ B. Cardiovascular Engineering and Technology, 2013, 4, 26-38.	1.6	40
39	Stiffening-Induced High Pulsatility Flow Activates Endothelial Inflammation via a TLR2/NF- κ B Pathway. PLoS ONE, 2014, 9, e102195.	2.5	39
40	Hyperspectral anomaly detection by local joint subspace process and support vector machine. International Journal of Remote Sensing, 2020, 41, 3798-3819.	2.9	37
41	Mechanical and biocompatible characterizations of a readily available multilayer vascular graft. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2013, 101B, 506-519.	3.4	33
42	Getting Insights into the Temperature-Specific Active Sites on Platinum Nanoparticles for CO Oxidation: A Combined in Situ Spectroscopic and ab Initio Density Functional Theory Study. ACS Catalysis, 2019, 9, 7759-7768.	11.2	33
43	The mechanical and electrical properties of direct-spun carbon nanotube mat-epoxy composites. Carbon, 2019, 150, 489-504.	10.3	32
44	Highly efficient Pt catalyst on newly designed CeO ₂ -ZrO ₂ -Al ₂ O ₃ support for catalytic removal of pollutants from vehicle exhaust. Chemical Engineering Journal, 2021, 426, 131855.	12.7	30
45	Void content and interfacial properties of composite laminates under different autoclave cure pressure. Composite Interfaces, 2017, 24, 529-540.	2.3	29
46	Highly Active and Stable Palladium Catalysts on Novel Ceria-Alumina Supports for Efficient Oxidation of Carbon Monoxide and Hydrocarbons. Environmental Science & Technology, 2021, 55, 7624-7633.	10.0	28
47	Tuning Single-atom Pt ₁ -CeO ₂ Catalyst for Efficient CO and C ₃ H ₆ Oxidation: Size Effect of Ceria on Pt Structural Evolution. ChemNanoMat, 2020, 6, 1797-1805.	2.8	27
48	Remote Sensing Image Fusion via Boundary Measured Dual-Channel PCNN in Multi-Scale Morphological Gradient Domain. IEEE Access, 2020, 8, 42540-42549.	4.2	27
49	Three-dimensional, soft neotissue arrays as high throughput platforms for the interrogation of engineered tissue environments. Biomaterials, 2015, 59, 39-52.	11.4	26
50	A photoclickable peptide microarray platform for facile and rapid screening of 3-D tissue microenvironments. Biomaterials, 2017, 143, 17-28.	11.4	26
51	Biomimetic soft fibrous hydrogels for contractile and pharmacologically responsive smooth muscle. Acta Biomaterialia, 2018, 74, 121-130.	8.3	26
52	Enhancing low-temperature NH ₃ -SCR performance of Fe-Mn/CeO ₂ catalyst by Al ₂ O ₃ modification. Journal of Rare Earths, 2022, 40, 1454-1461.	4.8	26
53	Roles of genipin crosslinking and biomolecule conditioning in collagen-based biopolymer: Potential for vascular media regeneration. Journal of Biomedical Materials Research - Part A, 2011, 97A, 16-26.	4.0	25
54	Fusion of multi-focus images via a Gaussian curvature filter and synthetic focusing degree criterion. Applied Optics, 2018, 57, 10092.	1.8	25

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55	Morphology-Sensitive Sulfation Effect on Ceria Catalysts for NH ₃ -SCR. Topics in Catalysis, 2020, 63, 932-943.	2.8	24
56	The dual effects of ammonium bisulfate on the selective catalytic reduction of NO with NH ₃ over Fe ₂ O ₃ -WO ₃ catalyst confined in MCM-41. Chemical Engineering Journal, 2020, 389, 124271.	12.7	24
57	Copper nanoparticles spaced 3D graphene films for binder-free lithium-storing electrodes. Journal of Materials Chemistry A, 2016, 4, 8466-8477.	10.3	21
58	Transformation of Highly Stable Pt Single Sites on Defect Engineered Ceria into Robust Pt Clusters for Vehicle Emission Control. Environmental Science & Technology, 2021, 55, 12607-12618.	10.0	21
59	A new flow co-culture system for studying mechanobiology effects of pulse flow waves. Cytotechnology, 2012, 64, 649-666.	1.6	20
60	Influence of chirality on catalytic generation of nitric oxide and platelet behavior on selenocystine immobilized TiO ₂ films. Colloids and Surfaces B: Biointerfaces, 2016, 145, 122-129.	5.0	20
61	High-Throughput Screening of Vascular Endothelium-Destructive or Protective Microenvironments: Cooperative Actions of Extracellular Matrix Composition, Stiffness, and Structure. Advanced Healthcare Materials, 2017, 6, 1601426.	7.6	20
62	Visual Attention and Background Subtraction With Adaptive Weight for Hyperspectral Anomaly Detection. IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2021, 14, 2270-2283.	4.9	20
63	Comment on "A tensorial based progressive damage model for fibre reinforced polymers". Composite Structures, 2017, 176, 877-882.	5.8	19
64	Molybdenum oxide as an efficient promoter to enhance the NH ₃ -SCR performance of CeO ₂ -SiO ₂ catalyst for NO removal. Catalysis Today, 2022, 397-399, 475-483.	4.4	19
65	Fabrication and adhesion of a bio-inspired microarray: capillarity-induced casting using porous silicon mold. Journal of Materials Chemistry B, 2013, 1, 379-386.	5.8	17
66	Influence of Distal Resistance and Proximal Stiffness on Hemodynamics and RV Afterload in Progression and Treatments of Pulmonary Hypertension: A Computational Study with Validation Using Animal Models. Computational and Mathematical Methods in Medicine, 2013, 2013, 1-12.	1.3	16
67	Insights into the precursor effect on the surface structure of γ -Al ₂ O ₃ and NO + CO catalytic performance of CO-pretreated CuO/MnOx/ γ -Al ₂ O ₃ catalysts. Journal of Colloid and Interface Science, 2019, 554, 611-618.	9.4	15
68	Solid-phase impregnation promotes Ce doping in TiO ₂ for boosted denitration of CeO ₂ /TiO ₂ catalysts. Chinese Chemical Letters, 2022, 33, 935-938.	9.0	15
69	Optimization of curing process for polymer-matrix composites based on orthogonal experimental method. Fibers and Polymers, 2017, 18, 148-154.	2.1	14
70	Polymer actuators of fluorene derivatives with enhanced inner channels and mechanical performance. Sensors and Actuators B: Chemical, 2018, 255, 791-799.	7.8	13
71	Coaxial PCL/PEG-thiol-ene microfiber with tunable physico-chemical properties for regenerative scaffolds. Biomaterials Science, 2019, 7, 3640-3651.	5.4	13
72	RGB-IR Cross Input and Sub-Pixel Upsampling Network for Infrared Image Super-Resolution. Sensors, 2020, 20, 281.	3.8	13

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73	Activity enhancement of WO ₃ modified FeTiO catalysts for the selective catalytic reduction of NO by NH ₃ . <i>Catalysis Today</i> , 2021, 375, 614-622.	4.4	13
74	Progressive damage modelling and fatigue life prediction of Plain-weave composite laminates with Low-velocity impact damage. <i>Composite Structures</i> , 2021, 273, 114262.	5.8	13
75	Evaluation of electrospun PLLA/PEGDMA polymer coatings for vascular stent material. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2016, 27, 1086-1099.	3.5	12
76	Layer-specific arterial micromechanics and microstructure: Influences of age, anatomical location, and processing technique. <i>Journal of Biomechanics</i> , 2019, 88, 113-121.	2.1	11
77	Tethering transforming growth factor β 1 to soft hydrogels guides vascular smooth muscle commitment from human mesenchymal stem cells. <i>Acta Biomaterialia</i> , 2020, 105, 68-77.	8.3	11
78	Performance of marrow stromal cell-seeded small-caliber multilayered vascular graft in a senescent sheep model. <i>Biomedical Materials (Bristol)</i> , 2018, 13, 055004.	3.3	10
79	Predicting Impact Damage, Residual Strength and Crashworthiness of Composite Structures. <i>SAE International Journal of Materials and Manufacturing</i> , 2016, 9, 718-728.	0.3	9
80	Infrared and visible image fusion via NSST and PCNN in multiscale morphological gradient domain. , 2020, , .		9
81	Prestrain-free electrostrictive film sandwiched by asymmetric electrodes for out-of-plane actuation. <i>Chemical Engineering Journal</i> , 2018, 352, 876-885.	12.7	8
82	Effects of recipient age, heparin release and allogeneic bone marrow-derived stromal cells on vascular graft remodeling. <i>Acta Biomaterialia</i> , 2021, 125, 172-182.	8.3	8
83	The mechanical and electrochemical properties of polyaniline-coated carbon nanotube mat. <i>Journal of Energy Storage</i> , 2021, 41, 102757.	8.1	8
84	Effect of autoclave pressure on interfacial properties at micro- and macro- level in polymer-matrix composite laminates. <i>Fibers and Polymers</i> , 2017, 18, 1614-1622.	2.1	7
85	Multi-focus image fusion using spatial frequency and discrete wavelet transform. , 2017, , .		7
86	Fatigue crack growth and life prediction of 7075-T62 aluminium-alloy thin-sheets with low-velocity impact damage under block spectrum loading. <i>International Journal of Fatigue</i> , 2022, 155, 106618.	5.7	7
87	A Secure Shard Reconfiguration Protocol for Sharding Blockchains Without a Randomness. , 2020, , .		6
88	A crystal plasticity phenomenological model to capture the non-linear shear response of carbon fibre reinforced composites. <i>International Journal of Lightweight Materials and Manufacture</i> , 2021, 4, 99-109.	2.1	5
89	Amplified spontaneous emission based on an excited-state intramolecular-proton-transfer molecule with solid-state-induced emission enhancement. <i>Optical Materials Express</i> , 2019, 9, 1709.	3.0	5
90	In Vitro Model of Physiological and Pathological Blood Flow with Application to Investigations of Vascular Cell Remodeling. <i>Journal of Visualized Experiments</i> , 2015, , e53224.	0.3	3

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91	Infrared polarization image fusion via multi-scale sparse representation and pulse coupled neural network. , 2019, , .		3
92	Vascular Grafts with Tailored Stiffness and a Ligand Environment via Multiarmed Polymer Sheath for Expeditious Regeneration. ACS Applied Bio Materials, 2021, 4, 545-558.	4.6	3
93	Applying Principles of Regenerative Medicine to Vascular Stent Development. Frontiers in Bioengineering and Biotechnology, 2022, 10, 826807.	4.1	3
94	Mechanochemical Effects on Extracellular Signal-Regulated Kinase Dynamics in Stem Cell Differentiation. Tissue Engineering - Part A, 2018, 24, 1179-1189.	3.1	2
95	Effect of Viscoelasticity on Arterial-Like Pulsatile Flow Dynamics and Energy. Journal of Biomechanical Engineering, 2020, 142, .	1.3	2
96	Infrared and Visual Image Fusion via Multi-modal Decomposition and PCNN in Gradient Domain Fusion Measure. Lecture Notes in Computer Science, 2020, , 322-329.	1.3	2
97	RCA-NET: Image Recovery Network with Channel Attention Group for Image Dehazing. Lecture Notes in Computer Science, 2020, , 330-337.	1.3	2
98	Study on Acceleration Control Algorithm of Blood Pump Driven by Large Gap Magnetic Force. Advanced Materials Research, 0, 317-319, 1193-1196.	0.3	1
99	Numerical prediction of the low-velocity impact damage and compression after impact strength of composite laminates. IOP Conference Series: Materials Science and Engineering, 2015, 74, 012015.	0.6	1
100	Virtual Testing of Composite Structures: Progress and Challenges in Predicting Damage, Residual Strength and Crashworthiness. , 2017, , 699-743.		1
101	Self-adaptive histogram equalization image enhancement based on canny operator. , 2017, , .		1
102	Infrared and visible image fusion via NSCT and gradient domain PCNN. , 2021, , .		1
103	Novel Electrospun Nanocomposites With Controllable Compositional Gradient and Degradation Kinetics for Vascular Tissue Engineering. , 2009, , .		0
104	Study on Control Parameters in the Acceleration of Axial Flow Blood Pump. Applied Mechanics and Materials, 0, 128-129, 1031-1034.	0.2	0
105	Temporal non-uniformity correction for infrared image based on moment matching. , 2016, , .		0
106	The Nail Penetration Behaviour of Carbon Nanotube Composite Electrodes for Energy Storage. Frontiers in Materials, 2021, 8, .	2.4	0
107	GPU based real-time enhancement of high resolution image. , 2018, , .		0
108	Real-time restoration algorithm for sparse aperture image. , 2019, , .		0

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109	Fusion of infrared and visible images through multi-level co-occurrence filtering., 2020, , .		0