

Javad Tavakoli

List of Publications by Year in descending order

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Version: 2024-02-01

60
papers

1,990
citations

304368

22
h-index

253896

43
g-index

61
all docs

61
docs citations

61
times ranked

2693
citing authors

#	ARTICLE	IF	CITATIONS
1	Bacterial cellulose production, properties and applications with different culture methods â€œ A review. Carbohydrate Polymers, 2019, 219, 63-76.	5.1	444
2	Hydrogel Based Sensors for Biomedical Applications: An Updated Review. Polymers, 2017, 9, 364.	2.0	286
3	Honey/PVA hybrid wound dressings with controlled release of antibiotics: Structural, physico-mechanical and in-vitro biomedical studies. Materials Science and Engineering C, 2017, 77, 318-325.	3.8	105
4	Polydopamine as sizing on carbon fiber surfaces for enhancement of epoxy laminated composites. Composites Part A: Applied Science and Manufacturing, 2018, 107, 626-632.	3.8	72
5	Structure and mechanical function of the interâ€œlamellar matrix of the annulus fibrosus in the disc. Journal of Orthopaedic Research, 2016, 34, 1307-1315.	1.2	60
6	The ultra-structural organization of the elastic network in the intra- and inter-lamellar matrix of the intervertebral disc. Acta Biomaterialia, 2017, 58, 269-277.	4.1	57
7	Understanding interfacial interactions of polydopamine and glass fiber and their enhancement mechanisms in epoxy-based laminates. Composites Part A: Applied Science and Manufacturing, 2019, 116, 62-71.	3.8	45
8	Novel Bacterial Cellulose/Gelatin Hydrogels as 3D Scaffolds for Tumor Cell Culture. Polymers, 2018, 10, 581.	2.0	43
9	Ultrastructural organization of elastic fibres in the partition boundaries of the annulus fibrosus within the intervertebral disc. Acta Biomaterialia, 2018, 68, 67-77.	4.1	42
10	Swelling characteristics of acrylic acid polyelectrolyte hydrogel in a dc electric field. Smart Materials and Structures, 2007, 16, 1614-1620.	1.8	41
11	Revisiting an ancient inorganic aggregationâ€œinduced emission system: An enlightenment to clusteroluminescence. Aggregate, 2021, 2, e36.	5.2	40
12	Characterization of Ti6Al4V implant surface treated by Nd:YAG laser and emery paper for orthopaedic applications. Applied Surface Science, 2007, 253, 8772-8781.	3.1	39
13	Cost-Effective Double-Layer Hydrogel Composites for Wound Dressing Applications. Polymers, 2018, 10, 305.	2.0	39
14	Enlightening Freezeâ€œThaw Process of Physically Cross-Linked Poly(vinyl alcohol) Hydrogels by Aggregation-Induced Emission Fluorogens. ACS Applied Polymer Materials, 2019, 1, 1390-1398.	2.0	36
15	Novel Bacterial Cellulose-Poly (Acrylic Acid) Hybrid Hydrogels with Controllable Antimicrobial Ability as Dressings for Chronic Wounds. Polymers, 2018, 10, 1323.	2.0	35
16	In situ polymerized hyperbranched polymer reinforced poly(acrylic acid) hydrogels. Materials Chemistry Frontiers, 2017, 1, 1995-2004.	3.2	33
17	Physico-mechanical, morphological and biomedical properties of a novel natural wound dressing material. Journal of the Mechanical Behavior of Biomedical Materials, 2017, 65, 373-382.	1.5	32
18	New findings confirm the viscoelastic behaviour of the inter-lamellar matrix of the disc annulus fibrosus in radial and circumferential directions of loading. Acta Biomaterialia, 2018, 71, 411-419.	4.1	32

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19	A method for visualization and isolation of elastic fibres in annulus fibrosus of the disc. <i>Materials Science and Engineering C</i> , 2018, 93, 299-304.	3.8	29
20	Advanced Strategies for the Regeneration of Lumbar Disc Annulus Fibrosus. <i>International Journal of Molecular Sciences</i> , 2020, 21, 4889.	1.8	28
21	Modeling of human intervertebral disc annulus fibrosus with complex multi-fiber networks. <i>Acta Biomaterialia</i> , 2021, 123, 208-221.	4.1	26
22	Aggregation-induced emission lights up the swelling process: a new technique for swelling characterisation of hydrogels. <i>Materials Chemistry Frontiers</i> , 2019, 3, 664-667.	3.2	25
23	Evaluation of effectiveness of herbal medication in cancer care: a review study. <i>Iranian Journal of Cancer Prevention</i> , 2012, 5, 144-56.	0.7	25
24	Surface morphology characterization of laser-induced titanium implants: lesson to enhance osseointegration process. <i>Biomedical Engineering Letters</i> , 2018, 8, 249-257.	2.1	24
25	The Biomechanics of the Inter-Lamellar Matrix and the Lamellae During Progression to Lumbar Disc Herniation: Which is the Weakest Structure?. <i>Annals of Biomedical Engineering</i> , 2018, 46, 1280-1291.	1.3	24
26	Artificial intelligence enhanced mathematical modeling on rotary triboelectric nanogenerators under various kinematic and geometric conditions. <i>Nano Energy</i> , 2020, 75, 104993.	8.2	24
27	Tissue Engineering of the Intervertebral Disc's Annulus Fibrosus: A Scaffold-Based Review Study. <i>Tissue Engineering and Regenerative Medicine</i> , 2017, 14, 81-91.	1.6	22
28	New insights into the viscoelastic and failure mechanical properties of the elastic fiber network of the inter-lamellar matrix in the annulus fibrosus of the disc. <i>Acta Biomaterialia</i> , 2018, 77, 292-300.	4.1	21
29	Tuning aggregation-induced emission nanoparticle properties under thin film formation. <i>Materials Chemistry Frontiers</i> , 2020, 4, 537-545.	3.2	21
30	Elastic fibers: The missing key to improve engineering concepts for reconstruction of the Nucleus Pulposus in the intervertebral disc. <i>Acta Biomaterialia</i> , 2020, 113, 407-416.	4.1	20
31	Simulation of high-output and lightweight sliding-mode triboelectric nanogenerators. <i>Nano Energy</i> , 2019, 66, 104115.	8.2	19
32	AI Egen quantitatively monitoring the release of Ca ²⁺ during swelling and degradation process in alginate hydrogels. <i>Materials Science and Engineering C</i> , 2019, 104, 109951.	3.8	17
33	In situ formed internal water channels improving water swelling and mechanical properties of water swellable rubber composites. <i>Journal of Applied Polymer Science</i> , 2017, 134, .	1.3	16
34	Development of a rapid matrix digestion technique for ultrastructural analysis of elastic fibers in the intervertebral disc. <i>Journal of the Mechanical Behavior of Biomedical Materials</i> , 2017, 71, 175-183.	1.5	15
35	The ultrastructural organization of elastic fibers at the interface of the nucleus and annulus of the intervertebral disk. <i>Acta Biomaterialia</i> , 2020, 114, 323-332.	4.1	15
36	Natural-based Hydrogels: A Journey from Simple to Smart Networks for Medical Examination. <i>Current Medicinal Chemistry</i> , 2020, 27, 2704-2733.	1.2	13

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37	Effect of Nd:Yttrium-aluminum-garnet laser radiation on Ti6Al4V alloy properties for biomedical applications. <i>Journal of Laser Applications</i> , 2008, 20, 209-217.	0.8	12
38	Aggregation-Induced Emission Fluorescent Gels: Current Trends and Future Perspectives. <i>Topics in Current Chemistry</i> , 2021, 379, 9.	3.0	12
39	Understanding the lipid production mechanism in <i>Euglena gracilis</i> with a fast-response AIEgen bioprobe, DPAS. <i>Materials Chemistry Frontiers</i> , 2021, 5, 268-283.	3.2	11
40	Erythromycin Releasing PVA/sucrose and PVA/honey Hydrogels as Wound Dressings with Antibacterial Activity and Enhanced Bio-adhesion. <i>Iranian Journal of Pharmaceutical Research</i> , 2020, 19, 448-464.	0.3	10
41	Hyperbranched polymers tune the physicochemical, mechanical, and biomedical properties of alginate hydrogels. <i>Materials Today Chemistry</i> , 2022, 23, 100656.	1.7	10
42	A hyper-branched polymer tunes the size and enhances the fluorescent properties of aggregation-induced emission nanoparticles. <i>Nanoscale Advances</i> , 2020, 2, 633-641.	2.2	9
43	Vortex fluidic mediated one-step fabrication of polyvinyl alcohol hydrogel films with tunable surface morphologies and enhanced self-healing properties. <i>Science China Materials</i> , 2020, 63, 1310-1317.	3.5	9
44	Vortex fluidic enabling and significantly boosting light intensity of graphene oxide with aggregation induced emission luminogen. <i>Materials Chemistry Frontiers</i> , 2020, 4, 2126-2130.	3.2	8
45	Characterization and evaluation of acacia gum loaded PVA hybrid wound dressing. , 2013, , .		7
46	Mechanisms of Failure Following Simulated Repetitive Lifting. <i>Spine</i> , 2020, 45, 357-367.	1.0	7
47	Analysis of Bioadhesivity of Osteoblast Cells on Titanium Alloy Surface Modified by Nd:YAG Laser. <i>Journal of Adhesion</i> , 2007, 83, 151-172.	1.8	5
48	Synthetic fluorescent probes to apprehend calcium signalling in lipid droplet accumulation in microalgae—an updated review. <i>Science China Chemistry</i> , 2020, 63, 308-324.	4.2	5
49	Enhancing water swelling ability and mechanical properties of water-swelling rubber by PAA/SBS nanofiber mats. <i>Journal of Applied Polymer Science</i> , 2016, 133, .	1.3	4
50	Tuning Surface Morphology of Fluorescent Hydrogels Using a Vortex Fluidic Device. <i>Molecules</i> , 2020, 25, 3445.	1.7	4
51	Detailed mechanical characterization of the transition zone: New insight into the integration between the annulus and nucleus of the intervertebral disc. <i>Acta Biomaterialia</i> , 2022, 143, 87-99.	4.1	3
52	ALTEN: A High-Fidelity Primary Tissue Engineering Platform to Assess Cellular Responses Ex Vivo. <i>Advanced Science</i> , 0, , 2103332.	5.6	3
53	Region-media coupling in characterization and modelling of the disc annulus single lamella swelling. <i>Medical and Biological Engineering and Computing</i> , 2017, 55, 1483-1492.	1.6	2
54	Developing Novel Fabrication and Optimisation Strategies on Aggregation-Induced Emission Nanoprobe/Polyvinyl Alcohol Hydrogels for Bio-Applications. <i>Molecules</i> , 2022, 27, 1002.	1.7	2

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55	Evaluation of drug release from PLGA nanospheres containing bethametasone. , 2007, , .		1
56	Effect of Honey/PVA Hydrogel Loaded by Erythromycin on Full-Thickness Skin Wound Healing in Rats; Stereological Study. Galen, 2019, 8, e1362.	0.6	1
57	Evaluation of drug release from PLGA nanospheres containing bethametasone. Proceedings of SPIE, 2007, , .	0.8	0
58	Evaluation of water conservation system for sterilizer cooling mechanism: A preventive maintenance study. , 2008, , .		0
59	Risk management in integrated biomedical engineering preventive maintenance information network. , 2008, , .		0
60	Magnetic resonance elastography: A non-invasive biomarker for low back pain studies. Biomedical Engineering Advances, 2021, 2, 100014.	2.2	0