

Rupy Kaur Matharu

List of Publications by Year in descending order

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Version: 2024-02-01

91
papers

2,911
citations

136950

32
h-index

197818

49
g-index

92
all docs

92
docs citations

92
times ranked

3258
citing authors

#	ARTICLE	IF	CITATIONS
1	Binary polymer systems for biomedical applications. <i>International Materials Reviews</i> , 2023, 68, 184-224.	19.3	7
2	Exploiting the antiviral potential of intermetallic nanoparticles. <i>Emergent Materials</i> , 2022, 5, 1251-1260.	5.7	6
3	Severe Acute Respiratory Syndrome Type 2â€Causing Coronavirus: Variants and Preventive Strategies. <i>Advanced Science</i> , 2022, 9, e2104495.	11.2	16
4	Facile One-Pot Method for All Aqueous Green Formation of Biocompatible Silk Fibroin-Poly(Ethylene) Tj ETQqO O O rgBT /Overlock 10 Tf 5 1290-1300.	5.2	11
5	Manufacturing Cyclodextrin Fibers Using Water. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	3.6	9
6	Optimised release of tetracycline hydrochloride from core-sheath fibres produced by pressurised gyration. <i>Journal of Drug Delivery Science and Technology</i> , 2022, 72, 103359.	3.0	7
7	Nozzleâ€Pressurized Gyration: A Novel Fiber Manufacturing Process. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	3.6	9
8	The effect of solvent and pressure on polycaprolactone solutions for particle and fibre formation. <i>European Polymer Journal</i> , 2022, 173, 111300.	5.4	13
9	Sustainable Macromolecular Materials and Engineering. <i>Macromolecular Materials and Engineering</i> , 2022, 307, .	3.6	2
10	Accelerated diabetic wound healing by topical application of combination oral antidiabetic agents-loaded nanofibrous scaffolds: An in vitro and in vivo evaluation study. <i>Materials Science and Engineering C</i> , 2021, 119, 111586.	7.3	54
11	Nextâ€Generation Antimicrobial Peptides (AMPs) incorporated nanofibre wound dressings. <i>Medical Devices & Sensors</i> , 2021, 4, e10144.	2.7	10
12	Perspective: Covid-19; emerging strategies and material technologies. <i>Emergent Materials</i> , 2021, 4, 3-8.	5.7	10
13	Alleviating the toxicity concerns of antibacterial cinnamonâ€polycaprolactone biomaterials for healthcareâ€related biomedical applications. <i>MedComm</i> , 2021, 2, 236-246.	7.2	17
14	Coâ€Axial Gyroâ€Spinning of PCL/PVA/HA Coreâ€Sheath Fibrous Scaffolds for Bone Tissue Engineering. <i>Macromolecular Bioscience</i> , 2021, 21, e2100177.	4.1	18
15	Harnessing Polyhydroxyalkanoates and Pressurized Gyration for Hard and Soft Tissue Engineering. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 32624-32639.	8.0	27
16	Vitamin D3/vitamin K2/magnesium-loaded polylactic acid/tricalcium phosphate/polycaprolactone composite nanofibers demonstrated osteoinductive effect by increasing Runx2 via Wnt/ β -catenin pathway. <i>International Journal of Biological Macromolecules</i> , 2021, 190, 244-258.	7.5	14
17	Surface interactions and viability of coronaviruses. <i>Journal of the Royal Society Interface</i> , 2021, 18, 20200798.	3.4	31
18	Porous Graphene Composite Polymer Fibres. <i>Polymers</i> , 2021, 13, 76.	4.5	10

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19	Utilising Co-Axial Electrospinning as a Taste-Masking Technology for Paediatric Drug Delivery. <i>Pharmaceutics</i> , 2021, 13, 1665.	4.5	11
20	Optimization of Processâ€™Control Parameters for the Diameter of Electrospun Hydrophilic Polymeric Composite Nanofibers. <i>Macromolecular Materials and Engineering</i> , 2021, 306, 2100471.	3.6	4
21	Metal-based nanoparticles for combating antibiotic resistance. <i>Applied Physics Reviews</i> , 2021, 8, .	11.3	21
22	Coreâ€™sheath polymer nanofiber formation by the simultaneous application of rotation and pressure in a novel purpose-designed vessel. <i>Applied Physics Reviews</i> , 2021, 8, .	11.3	20
23	Self-assembled micro-stripe patterning of sessile polymeric nanofluid droplets. <i>Journal of Colloid and Interface Science</i> , 2020, 561, 470-480.	9.4	10
24	A novel treatment strategy for preterm birth: Intra-vaginal progesterone-loaded fibrous patches. <i>International Journal of Pharmaceutics</i> , 2020, 588, 119782.	5.2	31
25	Rapid and label-free detection of COVID-19 using coherent anti-Stokes Raman scattering microscopy. <i>MRS Communications</i> , 2020, 10, 566-572.	1.8	13
26	Current methodologies and approaches for the formation of coreâ€™sheath polymer fibers for biomedical applications. <i>Applied Physics Reviews</i> , 2020, 7, .	11.3	56
27	Generation of Coreâ€™Sheath Polymer Nanofibers by Pressurised Gyration. <i>Polymers</i> , 2020, 12, 1709.	4.5	39
28	COVIDâ€™19: Facemasks, healthcare policies and risk factors in the crucial initial months of a global pandemic. <i>Medical Devices & Sensors</i> , 2020, 3, e10120.	2.7	7
29	Effectiveness of Oil-Layered Albumin Microbubbles Produced Using Microfluidic T-Junctions in Series for In Vitro Inhibition of Tumor Cells. <i>Langmuir</i> , 2020, 36, 11429-11441.	3.5	15
30	Microstructure of fibres pressure-spun from polyacrylonitrileâ€™graphene oxide composite mixtures. <i>Composites Science and Technology</i> , 2020, 197, 108214.	7.8	6
31	The comparison of glybenclamide and metformin-loaded bacterial cellulose/gelatin nanofibres produced by a portable electrohydrodynamic gun for diabetic wound healing. <i>European Polymer Journal</i> , 2020, 134, 109844.	5.4	35
32	Microstructure and antibacterial efficacy of graphene oxide nanocomposite fibres. <i>Journal of Colloid and Interface Science</i> , 2020, 571, 239-252.	9.4	67
33	Comparative Study of the Antimicrobial Effects of Tungsten Nanoparticles and Tungsten Nanocomposite Fibres on Hospital Acquired Bacterial and Viral Pathogens. <i>Nanomaterials</i> , 2020, 10, 1017.	4.1	38
34	Viral filtration using carbonâ€™based materials. <i>Medical Devices & Sensors</i> , 2020, 3, e10107.	2.7	27
35	Evaluation of burst release and sustained release of pioglitazone-loaded fibrous mats on diabetic wound healing: an <i>in vitro</i> and <i>in vivo</i> comparison study. <i>Journal of the Royal Society Interface</i> , 2020, 17, 20190712.	3.4	65
36	A Portable Device for the Generation of Drug-Loaded Three-Compartmental Fibers Containing Metronidazole and Iodine for Topical Application. <i>Pharmaceutics</i> , 2020, 12, 373.	4.5	5

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37	Bacterial cellulose micro-nano fibres for wound healing applications. <i>Biotechnology Advances</i> , 2020, 41, 107549.	11.7	144
38	Fiber Forming Capability of Binary and Ternary Compositions in the Polymer System: Bacterial Cellulose-Polycaprolactone-Polylactic Acid. <i>Polymers</i> , 2019, 11, 1148.	4.5	26
39	Electrosprayed microparticles: a novel drug delivery method. <i>Expert Opinion on Drug Delivery</i> , 2019, 16, 895-901.	5.0	16
40	Preparation of poly(glycerol sebacate) fibers for tissue engineering applications. <i>European Polymer Journal</i> , 2019, 121, 109297.	5.4	30
41	Experimental and theoretical investigation of the fluid behavior during polymeric fiber formation with and without pressure. <i>Applied Physics Reviews</i> , 2019, 6, 041401.	11.3	94
42	Biofabrication of Gelatin Tissue Scaffolds with Uniform Pore Size via Microbubble Assembly. <i>Macromolecular Materials and Engineering</i> , 2019, 304, 1900394.	3.6	7
43	Empirical modelling and optimization of pressure-coupled infusion gyration parameters for the nanofibre fabrication. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2019, 475, 20190008.	2.1	6
44	Boron nitride nanoscrolls: Structure, synthesis, and applications. <i>Applied Physics Reviews</i> , 2019, 6, .	11.3	18
45	Electrospinning Optimization of Eudragit E PO with and without Chlorpheniramine Maleate Using a Design of Experiment Approach. <i>Molecular Pharmaceutics</i> , 2019, 16, 2557-2568.	4.6	22
46	Fiber Formation from Silk Fibroin Using Pressurized Gyration. <i>Macromolecular Materials and Engineering</i> , 2019, 304, 1800577.	3.6	14
47	Anti-fungal bandages containing cinnamon extract. <i>International Wound Journal</i> , 2019, 16, 730-736.	2.9	30
48	Culture of Keratinocyte Staphylococcus aureus on Cu-Ag-Zn/CuO and Cu-Ag-W Nanoparticle Loaded Bacterial Cellulose:PMMA Bandages. <i>Macromolecular Materials and Engineering</i> , 2019, 304, 1800537.	3.6	30
49	Binary polyhydroxyalkanoate systems for soft tissue engineering. <i>Acta Biomaterialia</i> , 2018, 71, 225-234.	8.3	47
50	A Comparison of Electric-Field-Driven and Pressure-Driven Fiber Generation Methods for Drug Delivery. <i>Macromolecular Materials and Engineering</i> , 2018, 303, 1700577.	3.6	32
51	An Inexpensive, Portable Device for Point-of-Need Generation of Silver Nanoparticle Doped Cellulose Acetate Nanofibers for Advanced Wound Dressing. <i>Macromolecular Materials and Engineering</i> , 2018, 303, 1700586.	3.6	18
52	Nanocomposites: suitable alternatives as antimicrobial agents. <i>Nanotechnology</i> , 2018, 29, 282001.	2.6	63
53	Polymer-Magnetic Composite Fibers for Remote-Controlled Drug Release. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 15524-15531.	8.0	61
54	The development of progesterone-loaded nanofibers using pressurized gyration: A novel approach to vaginal delivery for the prevention of pre-term birth. <i>International Journal of Pharmaceutics</i> , 2018, 540, 31-39.	5.2	38

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55	Novel Making of Bacterial Cellulose Blended Polymeric Fiber Bandages. <i>Macromolecular Materials and Engineering</i> , 2018, 303, 1700607.	3.6	40
56	The biomedical applications of graphene. <i>Interface Focus</i> , 2018, 8, 20180006.	3.0	5
57	Alginate foam-based three-dimensional culture to investigate drug sensitivity in primary leukaemia cells. <i>Journal of the Royal Society Interface</i> , 2018, 15, 20170928.	3.4	11
58	Mucoadhesion of Progesterone-Loaded Drug Delivery Nanofiber Constructs. <i>ACS Applied Materials & Interfaces</i> , 2018, 10, 13381-13389.	8.0	51
59	Antimicrobial activity of tellurium-loaded polymeric fiber meshes. <i>Journal of Applied Polymer Science</i> , 2018, 135, 46368.	2.6	34
60	Latest developments in innovative manufacturing to combine nanotechnology with healthcare. <i>Nanomedicine</i> , 2018, 13, 5-8.	3.3	19
61	Novel Preparation of Monodisperse Microbubbles by Integrating Oscillating Electric Fields with Microfluidics. <i>Micromachines</i> , 2018, 9, 497.	2.9	12
62	Honeycomb-like PLGA-PEG Structure Creation with T-Junction Microdroplets. <i>Langmuir</i> , 2018, 34, 7989-7997.	3.5	18
63	Process Modeling for the Fiber Diameter of Polymer, Spun by Pressure-Coupled Infusion Gyration. <i>ACS Omega</i> , 2018, 3, 5470-5479.	3.5	14
64	The effect of graphene-poly(methyl methacrylate) fibres on microbial growth. <i>Interface Focus</i> , 2018, 8, 20170058.	3.0	50
65	Developments in Pressurized Gyration for the Mass Production of Polymeric Fibers. <i>Macromolecular Materials and Engineering</i> , 2018, 303, 1800218.	3.6	111
66	A comparison of methods to assess the antimicrobial activity of nanoparticle combinations on bacterial cells. <i>PLoS ONE</i> , 2018, 13, e0192093.	2.5	74
67	Highly Stretchable and Highly Resilient Polymer-Clay Nanocomposite Hydrogels with Low Hysteresis. <i>ACS Applied Materials & Interfaces</i> , 2017, 9, 22223-22234.	8.0	65
68	Simultaneous Application of Pressure-Infusion-Gyration to Generate Polymeric Nanofibers. <i>Macromolecular Materials and Engineering</i> , 2017, 302, 1600564.	3.6	39
69	Evolution of self-generating porous microstructures in polyacrylonitrile-cellulose acetate blend fibres. <i>Materials and Design</i> , 2017, 134, 259-271.	7.0	11
70	New Generation of Tunable Bioactive Shape Memory Mats Integrated with Genetically Engineered Proteins. <i>Macromolecular Bioscience</i> , 2017, 17, 1600270.	4.1	20
71	Evolution of Surface Nanopores in Pressurised Gyrospun Polymeric Microfibers. <i>Polymers</i> , 2017, 9, 508.	4.5	19
72	Characterisation of the Chemical Composition and Structural Features of Novel Antimicrobial Nanoparticles. <i>Nanomaterials</i> , 2017, 7, 152.	4.1	13

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73	Making Nonwoven Fibrous Poly(ϵ -caprolactone) Constructs for Antimicrobial and Tissue Engineering Applications by Pressurized Melt Gyration. <i>Macromolecular Materials and Engineering</i> , 2016, 301, 922-934.	3.6	42
74	Novel Preparation, Microstructure, and Properties of Polyacrylonitrile-Based Carbon Nanofiberâ€“Graphene Nanoplatelet Materials. <i>ACS Omega</i> , 2016, 1, 202-211.	3.5	28
75	Tailoring the surface of polymeric nanofibres generated by pressurised gyration. <i>Surface Innovations</i> , 2016, 4, 167-178.	2.3	14
76	Beads, beaded-fibres and fibres: Tailoring the morphology of poly(caprolactone) using pressurised gyration. <i>Materials Science and Engineering C</i> , 2016, 69, 1373-1382.	7.3	33
77	Development and Characterization of Amorphous Nanofiber Drug Dispersions Prepared Using Pressurized Gyration. <i>Molecular Pharmaceutics</i> , 2015, 12, 3851-3861.	4.6	35
78	Coupling Infusion and Gyration for the Nanoscale Assembly of Functional Polymer Nanofibers Integrated with Genetically Engineered Proteins. <i>Macromolecular Rapid Communications</i> , 2015, 36, 1322-1328.	3.9	50
79	Solubilityâ€“spinnability map and model for the preparation of fibres of polyethylene (terephthalate) using gyration and pressure. <i>Chemical Engineering Journal</i> , 2015, 280, 344-353.	12.7	57
80	Formation of Protein and Proteinâ€“Gold Nanoparticle Stabilized Microbubbles by Pressurized Gyration. <i>Langmuir</i> , 2015, 31, 659-666.	3.5	65
81	Making nanofibres of mucoadhesive polymer blends for vaginal therapies. <i>European Polymer Journal</i> , 2015, 70, 186-196.	5.4	38
82	Facile one-pot formation of ceramic fibres from preceramic polymers by pressurised gyration. <i>Ceramics International</i> , 2015, 41, 6067-6073.	4.8	24
83	Antibacterial Activity and Biosensing of PVA-Lysozyme Microbubbles Formed by Pressurized Gyration. <i>Langmuir</i> , 2015, 31, 9771-9780.	3.5	42
84	Preparation of Multilayered Polymeric Structures Using a Novel Fourâ€“Needle Coaxial Electrohydrodynamic Device. <i>Macromolecular Rapid Communications</i> , 2014, 35, 618-623.	3.9	70
85	Effect of humidity on the generation and control of the morphology of honeycomb-like polymeric structures by electrospinning. <i>European Polymer Journal</i> , 2014, 61, 72-82.	5.4	11
86	Novel encapsulation systems and processes for overcoming the challenges of polypharmacy. <i>Current Opinion in Pharmacology</i> , 2014, 18, 28-34.	3.5	11
87	Generation of poly(N-vinylpyrrolidone) nanofibres using pressurised gyration. <i>Materials Science and Engineering C</i> , 2014, 39, 168-176.	7.3	42
88	Preparation of monodisperse microbubbles using an integrated embedded capillary T-junction with electrohydrodynamic focusing. <i>Lab on A Chip</i> , 2014, 14, 2437-2446.	6.0	49
89	Forming of Polymer Nanofibers by a Pressurised Gyration Process. <i>Macromolecular Rapid Communications</i> , 2013, 34, 1134-1139.	3.9	188
90	Electrohydrodynamic Bubbling: An Alternative Route to Fabricate Porous Structures of Silk Fibroin Based Materials. <i>Biomacromolecules</i> , 2013, 14, 1412-1422.	5.4	35

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91	Fabrication of Biomaterials via Controlled Protein Bubble Generation and Manipulation. Biomacromolecules, 2011, 12, 4291-4300.	5.4	34