

Pallab Datta

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

105
papers

2,762
citations

28
h-index

50
g-index

113
ext. papers

3,634
ext. citations

4.3
avg, IF

5.6
L-index

#	Paper	IF	Citations
105	TrueNorth: Design and Tool Flow of a 65 mW 1 Million Neuron Programmable Neurosynaptic Chip. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 2015 , 34, 1537-1557	2.5	530
104	Bioprinting for vascular and vascularized tissue biofabrication. <i>Acta Biomaterialia</i> , 2017 , 51, 1-20	10.8	240
103	3D bioprinting for drug discovery and development in pharmaceuticals. <i>Acta Biomaterialia</i> , 2017 , 57, 26-46	10.8	162
102	2013 ,		123
101	Electrospun chitosan/polycaprolactone-hyaluronic acid bilayered scaffold for potential wound healing applications. <i>International Journal of Biological Macromolecules</i> , 2018 , 116, 774-785	7.9	97
100	Enzymatically crosslinked carboxymethyl chitosan/gelatin/nano-hydroxyapatite injectable gels for in situ bone tissue engineering application. <i>Materials Science and Engineering C</i> , 2011 , 31, 1295-1304	8.3	79
99	Collagen scaffolds derived from fresh water fish origin and their biocompatibility. <i>Journal of Biomedical Materials Research - Part A</i> , 2012 , 100, 1068-79	5.4	73
98	3D bioprinting for reconstituting the cancer microenvironment. <i>Npj Precision Oncology</i> , 2020 , 4, 18	9.8	70
97	2013 ,		69
96	Essential steps in bioprinting: From pre- to post-bioprinting. <i>Biotechnology Advances</i> , 2018 , 36, 1481-1504	7.8	69
95	Cognitive computing systems: Algorithms and applications for networks of neurosynaptic cores 2013 ,		60
94	Transplantation of Bioprinted Tissues and Organs: Technical and Clinical Challenges and Future Perspectives. <i>Annals of Surgery</i> , 2017 , 266, 48-58	7.8	57
93	. <i>Computer</i> , 2019 , 52, 20-29	1.6	56
92	Accelerated healing of full thickness dermal wounds by macroporous waterborne polyurethane-chitosan hydrogel scaffolds. <i>Materials Science and Engineering C</i> , 2017 , 81, 133-143	8.3	55
91	Thermally-controlled extrusion-based bioprinting of collagen. <i>Journal of Materials Science: Materials in Medicine</i> , 2019 , 30, 55	4.5	53
90	Hydrogels and electrospun nanofibrous scaffolds of N-methylene phosphonic chitosan as bioinspired osteoconductive materials for bone grafting. <i>Carbohydrate Polymers</i> , 2012 , 87, 1354-1362	10.3	49
89	Compass: A scalable simulator for an architecture for cognitive computing 2012 ,		48

88	Ratiometric chemodosimeter: an organic-nanofiber platform for sensing lethal phosgene gas. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 1756-1767	13	34
87	Repositing honey incorporated electrospun nanofiber membranes to provide anti-oxidant, anti-bacterial and anti-inflammatory microenvironment for wound regeneration. <i>Journal of Materials Science: Materials in Medicine</i> , 2018 , 29, 31	4.5	34
86	TrueNorth Ecosystem for Brain-Inspired Computing: Scalable Systems, Software, and Applications 2016 ,		33
85	Alginate-honey bioinks with improved cell responses for applications as bioprinted tissue engineered constructs. <i>Journal of Materials Research</i> , 2018 , 33, 2029-2039	2.5	32
84	Electrospun nanofibers of a phosphorylated polymer--a bioinspired approach for bone graft applications. <i>Colloids and Surfaces B: Biointerfaces</i> , 2012 , 94, 177-83	6	30
83	In vitro ALP and osteocalcin gene expression analysis and in vivo biocompatibility of N-methylene phosphonic chitosan nanofibers for bone regeneration. <i>Journal of Biomedical Nanotechnology</i> , 2013 , 9, 870-9	4	30
82	3D bioprinting for modelling vasculature. <i>Microphysiological Systems</i> , 2018 , 2,	1.3	30
81	Simple Bisthiocarbonohydrazone as a Sensitive, Selective, Colorimetric, and Ratiometric Fluorescent Chemosensor for Picric Acids. <i>ACS Omega</i> , 2017 , 2, 1583-1593	3.9	29
80	Bone tissue bioprinting for craniofacial reconstruction. <i>Biotechnology and Bioengineering</i> , 2017 , 114, 2424-2431	4.9	29
79	Tranexamic acid-loaded chitosan electrospun nanofibers as drug delivery system for hemorrhage control applications. <i>Journal of Drug Delivery Science and Technology</i> , 2019 , 52, 559-567	4.5	29
78	Real-Time Scalable Cortical Computing at 46 Giga-Synaptic OPS/Watt with ~100x Speedup in Time-to-Solution and ~100,000x Reduction in Energy-to-Solution 2014 ,		29
77	Chemically modified carbon nitride-chitin-acetic acid hybrid as a metal-free bifunctional nanozyme cascade of glucose oxidase-peroxidase for "click off" colorimetric detection of peroxide and glucose. <i>Biosensors and Bioelectronics</i> , 2020 , 154, 112072	11.8	26
76	Anisotropy Properties of Tissues: A Basis for Fabrication of Biomimetic Anisotropic Scaffolds for Tissue Engineering. <i>Journal of Bionic Engineering</i> , 2019 , 16, 842-868	2.7	24
75	Developments with 3D bioprinting for novel drug discovery. <i>Expert Opinion on Drug Discovery</i> , 2018 , 13, 1115-1129	6.2	24
74	3D Bioprinting of Tumor Models for Cancer Research.. <i>ACS Applied Bio Materials</i> , 2020 , 3, 5552-5573	4.1	22
73	Challenges in Bio-fabrication of Organoid Cultures. <i>Advances in Experimental Medicine and Biology</i> , 2018 , 1107, 53-71	3.6	22
72	Rerouting mesenchymal stem cell trajectory towards epithelial lineage by engineering cellular niche. <i>Biomaterials</i> , 2018 , 156, 28-44	15.6	21
71	Carboxymethyl guar gum synthesis in homogeneous phase and macroporous 3D scaffolds design for tissue engineering. <i>Carbohydrate Polymers</i> , 2018 , 191, 71-78	10.3	19

70	A highly selective ICT-based fluorescent probe for cysteine sensing and its application in living cell imaging. <i>Analytical Methods</i> , 2019 , 11, 1199-1207	3.2	17
69	A solvent directed D-FA fluorescent chemodosimeter for selective detection of hazardous hydrazine in real water sample and living cell. <i>Dyes and Pigments</i> , 2020 , 173, 107997	4.6	17
68	Pre-cancer risk assessment in habitual smokers from DIC images of oral exfoliative cells using active contour and SVM analysis. <i>Tissue and Cell</i> , 2017 , 49, 296-306	2.7	15
67	Reaction-based bi-signaling chemodosimeter probe for selective detection of hydrogen sulfide and cellular studies. <i>New Journal of Chemistry</i> , 2018 , 42, 5367-5375	3.6	14
66	Alginate-poly(amino acid) extrusion printed scaffolds for tissue engineering applications. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2020 , 69, 65-72	3	14
65	A comparative assessment of poly(vinylidene fluoride)/conducting polymer electrospun nanofiber membranes for biomedical applications. <i>Journal of Applied Polymer Science</i> , 2020 , 137, 49115	2.9	13
64	A Michael addition cyclization-based switch-on fluorescent chemodosimeter for cysteine and its application in live cell imaging. <i>New Journal of Chemistry</i> , 2018 , 42, 4951-4958	3.6	13
63	Bioprinting of osteochondral tissues: A perspective on current gaps and future trends. <i>International Journal of Bioprinting</i> , 2017 , 3, 007	6.2	13
62	A Turn-on fluorescent and colorimetric chemodosimeter for selective detection of Au ³⁺ ions in solution and in live cells via Au ³⁺ -induced hydrolysis of a rhodamine-derived Schiff base. <i>New Journal of Chemistry</i> , 2020 , 44, 7954-7961	3.6	13
61	Reaction-based ratiometric fluorescent probe for selective recognition of sulfide anions with a large Stokes shift through switching on ESIPT. <i>New Journal of Chemistry</i> , 2018 , 42, 76-84	3.6	13
60	Finite element and experimental analysis to select patient's bone condition specific porous dental implant, fabricated using additive manufacturing. <i>Computers in Biology and Medicine</i> , 2020 , 124, 103839	7	11
59	Bioprinting of radiopaque constructs for tissue engineering and understanding degradation behavior by use of Micro-CT. <i>Bioactive Materials</i> , 2020 , 5, 569-576	16.7	11
58	A PET based fluorescent chemosensor with real time application in monitoring formaldehyde emissions from plywood. <i>Analytical Methods</i> , 2018 , 10, 2888-2894	3.2	11
57	Force modeling to develop a novel method for fabrication of hollow channels inside a gel structure. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2020 , 234, 223-231	1.7	11
56	Cellular behavior of L929 and MG-63 cells cultured on electrospun nanofibers of chitosan with different degrees of phosphorylation. <i>Progress in Biomaterials</i> , 2016 , 5, 93-100	4.4	11
55	A ratiometric hypochlorite sensor guided by PET controlled ESIPT output with real time application in commercial bleach. <i>New Journal of Chemistry</i> , 2018 , 42, 15990-15996	3.6	11
54	Biofunctional Phosphorylated Chitosan Hydrogels Prepared Above pH 6 and Effect of Crosslinkers on Gel Properties Towards Biomedical Applications. <i>Soft Materials</i> , 2014 , 12, 27-35	1.7	10
53	Supramolecular Hydrogel from an Oxidized Byproduct of Tyrosine.. <i>ACS Applied Bio Materials</i> , 2019 , 2, 4881-4891	4.1	9

52	Nanoparticulate formulations of radiopharmaceuticals: Strategy to improve targeting and biodistribution properties. <i>Journal of Labelled Compounds and Radiopharmaceuticals</i> , 2020 , 63, 333	1.9	9
51	Bioink formulations to ameliorate bioprinting-induced loss of cellular viability. <i>Biointerphases</i> , 2019 , 14, 051006	1.8	9
50	Newer guar gum ester/chicken feather keratin interact films for tissue engineering. <i>International Journal of Biological Macromolecules</i> , 2021 , 180, 339-354	7.9	8
49	Deinococcus radiodurans: A novel bacterium for crack remediation of concrete with special applicability to low-temperature conditions. <i>Cement and Concrete Composites</i> , 2020 , 108, 103523	8.6	7
48	Flexible Nanogenerator from Electrospun PVDF-Polycarbazole Nanofiber Membranes for Human Motion Energy-Harvesting Device Applications. <i>ACS Biomaterials Science and Engineering</i> , 2021 , 7, 1673-1685	5.5	7
47	Effect of operating conditions and interfering substances on photochemical degradation of a cationic surfactant. <i>Environmental Technology (United Kingdom)</i> , 2018 , 39, 2771-2780	2.6	7
46	Natural and Synthetic Bioinks for 3D Bioprinting. <i>Advanced NanoBiomed Research</i> , 2021 , 1, 2000097	0	7
45	Isolation and mass spectrometry based hydroxyproline mapping of type II collagen derived from ear cartilage. <i>Communications Biology</i> , 2019 , 2, 146	6.7	6
44	Computational FEM Application on Percutaneous Nephrolithotomy (PCNL) Minimum Invasive Surgery Through Needle Insertion Process. <i>Advances in Mechatronics and Mechanical Engineering</i> , 2022 , 210-222	0.5	6
43	Phosphate functionalized and lactic acid containing graft copolymer: synthesis and evaluation as biomaterial for bone tissue engineering applications. <i>Journal of Biomaterials Science, Polymer Edition</i> , 2013 , 24, 696-713	3.5	5
42	Experimental Analysis the Tissue Deformation of Needle Insertion Process in Tissue Engineering 2020 ,		5
41	Design of patient specific bone stiffness mimicking scaffold. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2021 , 235, 1453-1462	1.7	5
40	Experimental Study of the Robotically Controlled Surgical Needle Insertion for Analysis of the Minimum Invasive Process. <i>Lecture Notes in Electrical Engineering</i> , 2022 , 473-482	0.2	5
39	Comparative evaluation of surface roughness and color stability of nanohybrid composite resin after periodic exposure to tea, coffee, and Coca-cola - An profilometric and image analysis study. <i>Journal of Conservative Dentistry</i> , 2020 , 23, 395-401	0.9	4
38	A highly selective ratiometric fluorescent probe for H ₂ S based on new heterocyclic ring formation and detection in live cells. <i>Supramolecular Chemistry</i> , 2019 , 31, 349-360	1.8	3
37	Artificial Bifunctional Photozyme of Glucose Oxidase-Peroxidase for Solar-Powered Glucose-Peroxide Detection in a Biofluid with Resorcinol-Formaldehyde Polymers. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 36948-36956	9.5	3
36	Estimation of parameters for plasma glucose regulation in type-2 diabetics in presence of meal. <i>IET Systems Biology</i> , 2018 , 12, 18-25	1.4	3
35	Engineering Porosity in Electrospun Nanofiber Sheets by Laser Engraving: A Strategy to Fabricate 3D Scaffolds for Bone Graft Applications. <i>Journal of the Indian Institute of Science</i> , 2019 , 99, 329-337	2.4	3

34	Processing and Industrial Aspects of Fish-scale Collagen: A Biomaterials Perspective 2013 , 589-629		3
33	Development of chitosan-tripolyphosphate fiber for biomedical application 2010 ,		3
32	Biophysical factors in the regulation of asymmetric division of stem cells. <i>Biological Reviews</i> , 2019 , 94, 810-827	13.5	3
31	A Perylene diimide based fluorescent probe for caffeine in aqueous medium. <i>Supramolecular Chemistry</i> , 2019 , 31, 28-35	1.8	3
30	Integrated UV/H ₂ O ₂ and biological treatment processes for the removal of cationic surfactant. <i>Journal of Environmental Engineering and Science</i> , 2021 , 16, 85-93	0.8	3
29	Chicken feather fiber-based bio-piezoelectric energy harvester: an efficient green energy source for flexible electronics. <i>Sustainable Energy and Fuels</i> , 2021 , 5, 1857-1866	5.8	3
28	The Study of the Epidemiology and Clinical Features of the Novel Coronavirus (COVID-19). <i>Health Information Systems and the Advancement of Medical Practice in Developing Countries</i> , 2021 , 25-39	0.2	3
27	Finite element analysis of the influence of cyclic strain on cells anchored to substrates with varying properties. <i>Medical and Biological Engineering and Computing</i> , 2021 , 1	3.1	2
26	UV-H ₂ O ₂ ADVANCED OXIDATION OF ANIONIC SURFACTANT: REACTION KINETICS, EFFECTS OF INTERFERING SUBSTANCES AND OPERATING CONDITIONS. <i>Environmental Engineering and Management Journal</i> , 2019 , 18, 1245-1254	0.6	2
25	Supramolecular assemblies of a 1,8-naphthalimide conjugate and its aggregation-induced emission property. <i>Materials Advances</i> , 2020 , 1, 3532-3538	3.3	2
24	Tannic acid-crosslinked chitosan matrices enhance osteogenic differentiation and modulate epigenetic status of cultured cells over glutaraldehyde crosslinking. <i>Soft Materials</i> , 1-12	1.7	2
23	3D Bioprinting for fabrication of tissue models of COVID-19 infection. <i>Essays in Biochemistry</i> , 2021 , 65, 503-518	7.6	2
22	Direct Growth of Bismuth Vanadate Thin Film Arrays on FTO via Galvanic Deposition Mediated by BiOI Nanosheets for Fabrication of Photoelectrochemical Non-Enzymatic Dopamine Sensing Platform. <i>Journal of the Electrochemical Society</i> , 2020 , 167, 047513	3.9	1
21	Magnetic gels 2018 , 441-465		1
20	Nanoemulsions for the Delivery of Anti-Hypertensive Drugs. <i>Advances in Chemical and Materials Engineering Book Series</i> , 2022 , 378-400	0.2	1
19	Synthesis and characterization of Sr-doped HAP-incorporated polyether ether ketone composite. <i>Journal of Composite Materials</i> , 2020 , 54, 287-298	2.7	1
18	Bone tissue engineering construct fabricated using a cell electrospinning technique with polyglutamic acid biopolymer. <i>Journal of Polymer Research</i> , 2021 , 28, 1	2.7	1
17	Assessment of Jaw Bone Quality for Designing Patient-Specific Dental Implant Using Computed Tomography Data. <i>Journal of Long-Term Effects of Medical Implants</i> , 2021 , 31, 49-58	0.2	1

16	Computational Study of In-Vitro Ureter Urine Flow in DJ Stent. <i>Advances in Mechatronics and Mechanical Engineering</i> , 2022 , 198-209	0.5	1
15	Study of Different Additive Manufacturing Processes and Emergent Applications in Modern Healthcare. <i>Advances in Chemical and Materials Engineering Book Series</i> , 2022 , 239-259	0.2	1
14	Piezoelectric nanomaterials for biomedical applications 2022 , 355-377		1
13	Honey-incorporated nanofibre reduces replicative senescence of umbilical cord-derived mesenchymal stem cells. <i>IET Nanobiotechnology</i> , 2020 , 14, 870-880	2	0
12	Chemical modifications of polysaccharides 2021 , 47-77		0
11	A xanthene-based novel colorimetric and fluorometric chemosensor for the detection of hydrazine and its application in the bio-imaging of live cells. <i>New Journal of Chemistry</i> , 2021 , 45, 15869-15875	3.6	0
10	Improved Oral Delivery of Drugs Using Nanoemulsion. <i>Advances in Chemical and Materials Engineering Book Series</i> , 2022 , 93-117	0.2	
9	Cell-Laden Alginate Hydrogel Modelling using Three-Dimensional (3D) Microscale Finite Element Technique. <i>Journal of the Institution of Engineers (India): Series C</i> , 1	0.9	
8	Study and Application of Machine Learning Methods in Modern Additive Manufacturing Processes. <i>Advances in Computational Intelligence and Robotics Book Series</i> , 2022 , 75-95	0.4	
7	The Impact of 3D Printing Technology on the COVID-19 Pandemic. <i>Advances in Healthcare Information Systems and Administration Book Series</i> , 2022 , 135-154	0.3	
6	Optimizing Cell Deformation in Extrusion-Based Bioprinting Process by Importing Inherent Viscoelasticity Using Computational Fluid Dynamic. <i>Lecture Notes in Mechanical Engineering</i> , 2022 , 337-348	0.4	
5	Electrochemical Column Cell for Continuous Oxidative Inactivation of Pathogens and Reductive Removal of Toxic Heavy Metals. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 32402-32414	9.5	
4	The Study of Traditional Medicine for the Treatment of COVID-19. <i>Advances in Medical Diagnosis, Treatment, and Care</i> , 2022 , 221-241	0.2	
3	Characterization of Bioinks for 3D Bioprinting. <i>Gels Horizons: From Science To Smart Materials</i> , 2021 , 27-77		
2	Mechanical response at peri-implant mandibular bone for variation of pore characteristics of implants: A Finite Element Study. <i>Acta of Bioengineering and Biomechanics</i> , 2019 , 21, 83-93	0.6	
1	Modelling cell deformations in bioprinting process using a multicompartment-smooth particle hydrodynamics approach.. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2022 , 9544119221089720	1.7	