

Shuvo Roy

List of Publications by Year in descending order

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Version: 2024-02-01

48
papers

1,122
citations

567281

15
h-index

434195

31
g-index

50
all docs

50
docs citations

50
times ranked

1776
citing authors

#	ARTICLE	IF	CITATIONS
1	Advances in extracorporeal membrane oxygenator design for artificial placenta technology. <i>Artificial Organs</i> , 2021, 45, 205-221.	1.9	10
2	Opportunities for Regulatory Changes to Promote Pediatric Device Innovation in the United States: Joint Recommendations From Pediatric Innovator Roundtables. <i>IEEE Journal of Translational Engineering in Health and Medicine</i> , 2021, 9, 1-5.	3.7	7
3	Superporous agarose scaffolds for encapsulation of adult human islets and human stem cell derived β cells for intravascular bioartificial pancreas applications. <i>Journal of Biomedical Materials Research - Part A</i> , 2021, 109, 2438-2448.	4.0	9
4	Genome Engineering Renal Epithelial Cells for Enhanced Volume Transport Function. <i>Cellular and Molecular Bioengineering</i> , 2020, 13, 17-26.	2.1	7
5	Pressure Injury Prevention: A Survey. <i>IEEE Reviews in Biomedical Engineering</i> , 2020, 13, 352-368.	18.0	20
6	Ultrafiltration for management of fluid overload in patients with heart failure. <i>Artificial Organs</i> , 2020, 44, 129-139.	1.9	6
7	Ambulatory Hemodialysis-Technology Landscape and Potential for Patient-Centered Treatment. <i>Clinical Journal of the American Society of Nephrology: CJASN</i> , 2020, 15, 152-159.	4.5	17
8	A Scalable, Hierarchical Rib Design for Larger-Area, Higher-Porosity Nanoporous Membranes for the Implantable Bio-Artificial Kidney. <i>Journal of Microelectromechanical Systems</i> , 2020, 29, 762-768.	2.5	7
9	Metformin and Inhibition of Transforming Growth Factor-Beta Stimulate <i>In Vitro</i> Transport in Primary Renal Tubule Cells. <i>Tissue Engineering - Part A</i> , 2020, 26, 1091-1098.	3.1	4
10	Application of physiological shear stress to renal tubular epithelial cells. <i>Methods in Cell Biology</i> , 2019, 153, 43-67.	1.1	12
11	Endovascular Ion Exchange Chemofiltration Device Reduces Off-Target Doxorubicin Exposure in a Hepatic Intra-arterial Chemotherapy Model. <i>Radiology Imaging Cancer</i> , 2019, 1, e190009.	1.6	7
12	Treating the kidneys – a new era in the United States (and beyond). <i>Nature Reviews Nephrology</i> , 2019, 15, 727-728.	9.6	0
13	Compliance monitoring via a Bluetooth-enabled retainer: A prospective clinical pilot study. <i>Orthodontics and Craniofacial Research</i> , 2019, 22, 149-153.	2.8	12
14	In Vitro models for thrombogenicity testing of blood-recirculating medical devices. <i>Expert Review of Medical Devices</i> , 2019, 16, 603-616.	2.8	20
15	Apical Shear Stress Enhanced Organic Cation Transport in Human OCT2/MATE1-Transfected Madin-Darby Canine Kidney Cells Involves Ciliary Sensing. <i>Journal of Pharmacology and Experimental Therapeutics</i> , 2019, 369, 523-530.	2.5	17
16	In vitro and in vivo hemocompatibility assessment of ultrathin sulfobetaine polymer coatings for silicon-based implants. <i>Journal of Biomaterials Applications</i> , 2019, 34, 297-312.	2.4	10
17	Acoustic Methods for Pulmonary Diagnosis. <i>IEEE Reviews in Biomedical Engineering</i> , 2019, 12, 221-239.	18.0	55
18	Novel Wearable Seismocardiography and Machine Learning Algorithms Can Assess Clinical Status of Heart Failure Patients. <i>Circulation: Heart Failure</i> , 2018, 11, e004313.	3.9	136

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19	Original article submission: Platelet stress accumulation analysis to predict thrombogenicity of an artificial kidney. <i>Journal of Biomechanics</i> , 2018, 69, 26-33.	2.1	9
20	Slit pores preferred over cylindrical pores for high selectivity in biomolecular filtration. <i>Journal of Colloid and Interface Science</i> , 2018, 517, 176-181.	9.4	8
21	A distributed solute model: an extended two-pore model with application to the glomerular sieving of Ficoll. <i>American Journal of Physiology - Renal Physiology</i> , 2018, 314, F1108-F1116.	2.7	8
22	Orbital Shear Stress Regulates Differentiation and Barrier Function of Primary Renal Tubular Epithelial Cells. <i>ASAIO Journal</i> , 2018, 64, 766-772.	1.6	21
23	Sterilization effects on ultrathin film polymer coatings for silicon-based implantable medical devices. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2018, 106, 2327-2336.	3.4	12
24	Silicon Micropore-Based Parallel Plate Membrane Oxygenator. <i>Artificial Organs</i> , 2018, 42, 166-173.	1.9	12
25	Evaluation of silicon membranes for extracorporeal membrane oxygenation (ECMO). <i>Biomedical Microdevices</i> , 2018, 20, 86.	2.8	14
26	Improved Detection of Lung Fluid With Standardized Acoustic Stimulation of the Chest. <i>IEEE Journal of Translational Engineering in Health and Medicine</i> , 2018, 6, 1-7.	3.7	7
27	Tabla: A Proof-of-Concept Auscultatory Percussion Device for Low-Cost Pneumonia Detection. <i>Sensors</i> , 2018, 18, 2689.	3.8	15
28	Stem Cell Therapies for Treating Diabetes: Progress and Remaining Challenges. <i>Cell Stem Cell</i> , 2018, 22, 810-823.	11.1	189
29	Innovations in Wearable and Implantable Artificial Kidneys. <i>American Journal of Kidney Diseases</i> , 2018, 72, 745-751.	1.9	65
30	Evolution of Gas Permeable Membranes for Extracorporeal Membrane Oxygenation. <i>Artificial Organs</i> , 2017, 41, 700-709.	1.9	66
31	Glucose-Stimulated Insulin Response of Silicon Nanopore-Immunoprotected Islets under Convective Transport. <i>ACS Biomaterials Science and Engineering</i> , 2017, 3, 1051-1061.	5.2	5
32	Silicon nanoporous membranes as a rigorous platform for validation of biomolecular transport models. <i>Journal of Membrane Science</i> , 2017, 536, 44-51.	8.2	11
33	Dual-Port Planar Antenna for Implantable Inductively Coupled Sensors. <i>IEEE Transactions on Antennas and Propagation</i> , 2017, 65, 5732-5739.	5.1	6
34	Tabla: An acoustic device designed for low cost pneumonia detection. , 2017, , .		3
35	Diffusive Silicon Nanopore Membranes for Hemodialysis Applications. <i>PLoS ONE</i> , 2016, 11, e0159526.	2.5	40
36	A modular microfluidic bioreactor with improved throughput for evaluation of polarized renal epithelial cells. <i>Biomicrofluidics</i> , 2016, 10, 064106.	2.4	14

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37	Silicon nanopore membrane (SNM) for islet encapsulation and immunoisolation under convective transport. Scientific Reports, 2016, 6, 23679.	3.3	40
38	Progress and challenges in macroencapsulation approaches for type 1 diabetes (T1D) treatment: Cells, biomaterials, and devices. Biotechnology and Bioengineering, 2016, 113, 1381-1402.	3.3	74
39	The synergistic effect of micro-topography and biochemical culture environment to promote angiogenesis and osteogenic differentiation of human mesenchymal stem cells. Acta Biomaterialia, 2015, 18, 100-111.	8.3	35
40	A low-input-voltage wireless power transfer for biomedical implants. , 2015, , .		0
41	Quality Factor Optimization of Inductive Antennas for Implantable Pressure Sensors. IEEE Sensors Journal, 2014, 14, 2452-2460.	4.7	9
42	Rapid and Low-cost Prototyping of Medical Devices Using 3D Printed Molds for Liquid Injection Molding. Journal of Visualized Experiments, 2014, , e51745.	0.3	19
43	A parallel-trace high-Q planar spiral coil for biomedical implants. , 2012, , .		3
44	Coupling enhancement of planar spiral coils using planar ferrite for biomedical implants. , 2012, , .		4
45	High Knudsen number fluid flow at near-standard temperature and pressure conditions using precision nanochannels. Microfluidics and Nanofluidics, 2011, 10, 425-433.	2.2	17
46	Sensitivity analysis of an implantable LC Based passive sensor. , 2010, , .		4
47	Innovation in the Treatment of Uremia: Proceedings from the Cleveland Clinic Workshop: The Implantable Artificial Kidney. Seminars in Dialysis, 2009, 22, 665-670.	1.3	49
48	Silicon nanopore membrane technology for an implantable artificial kidney. , 2009, , .		6