Shuvo Roy

List of Publications by Year
in descending order

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Version: 2024-02-01

48	1,122	567281 15	434195 31
papers	citations	h-index	g-index

50	50	50	1776
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Stem Cell Therapies for Treating Diabetes: Progress and Remaining Challenges. Cell Stem Cell, 2018, 22, 810-823.	11.1	189
2	Novel Wearable Seismocardiography and Machine Learning Algorithms Can Assess Clinical Status of Heart Failure Patients. Circulation: Heart Failure, 2018, 11, e004313.	3.9	136
3	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
4	Evolution of Gas Permeable Membranes for Extracorporeal Membrane Oxygenation. Artificial Organs, 2017, 41, 700-709.	1.9	66
5	Innovations in Wearable and Implantable Artificial Kidneys. American Journal of Kidney Diseases, 2018, 72, 745-751.	1.9	65
6	Acoustic Methods for Pulmonary Diagnosis. IEEE Reviews in Biomedical Engineering, 2019, 12, 221-239.	18.0	55
7	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
8	Diffusive Silicon Nanopore Membranes for Hemodialysis Applications. PLoS ONE, 2016, 11, e0159526.	2.5	40
9	Silicon nanopore membrane (SNM) for islet encapsulation and immunoisolation under convective transport. Scientific Reports, 2016, 6, 23679.	3.3	40
10	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
11	Orbital Shear Stress Regulates Differentiation and Barrier Function of Primary Renal Tubular Epithelial Cells. ASAIO Journal, 2018, 64, 766-772.	1.6	21
12	In Vitro models for thrombogenicity testing of blood-recirculating medical devices. Expert Review of Medical Devices, 2019, 16, 603-616.	2.8	20
13	Pressure Injury Prevention: A Survey. IEEE Reviews in Biomedical Engineering, 2020, 13, 352-368.	18.0	20
14	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
15	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
16	Apical Shear Stress Enhanced Organic Cation Transport in Human OCT2/MATE1-Transfected Madin-Darby Canine Kidney Cells Involves Ciliary Sensing. Journal of Pharmacology and Experimental Therapeutics, 2019, 369, 523-530.	2.5	17
17	Ambulatory Hemodialysis-Technology Landscape and Potential for Patient-Centered Treatment. Clinical Journal of the American Society of Nephrology: CJASN, 2020, 15, 152-159.	4.5	17
18	Tabla: A Proof-of-Concept Auscultatory Percussion Device for Low-Cost Pneumonia Detection. Sensors, 2018, 18, 2689.	3.8	15

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19	A modular microfluidic bioreactor with improved throughput for evaluation of polarized renal epithelial cells. Biomicrofluidics, 2016, 10, 064106.	2.4	14
20	Evaluation of silicon membranes for extracorporeal membrane oxygenation (ECMO). Biomedical Microdevices, 2018, 20, 86.	2.8	14
21	Sterilization effects on ultrathin film polymer coatings for siliconâ€based implantable medical devices. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 2327-2336.	3.4	12
22	Silicon Microporeâ€Based Parallel Plate Membrane Oxygenator. Artificial Organs, 2018, 42, 166-173.	1.9	12
23	Application of physiological shear stress to renal tubular epithelial cells. Methods in Cell Biology, 2019, 153, 43-67.	1.1	12
24	Compliance monitoring via a Bluetoothâ€enabled retainer: A prospective clinical pilot study. Orthodontics and Craniofacial Research, 2019, 22, 149-153.	2.8	12
25	Silicon nanoporous membranes as a rigorous platform for validation of biomolecular transport models. Journal of Membrane Science, 2017, 536, 44-51.	8.2	11
26	In vitro and in vivo hemocompatibility assessment of ultrathin sulfobetaine polymer coatings for silicon-based implants. Journal of Biomaterials Applications, 2019, 34, 297-312.	2.4	10
27	Advances in extracorporeal membrane oxygenator design for artificial placenta technology. Artificial Organs, 2021, 45, 205-221.	1.9	10
28	Quality Factor Optimization of Inductive Antennas for Implantable Pressure Sensors. IEEE Sensors Journal, 2014, 14, 2452-2460.	4.7	9
29	Original article submission: Platelet stress accumulation analysis to predict thrombogenicity of an artificial kidney. Journal of Biomechanics, 2018, 69, 26-33.	2.1	9
30	Superporous agarose scaffolds for encapsulation of adult human islets and human <scp>stemâ€cellâ€derived</scp> Î² cells for intravascular bioartificial pancreas applications. Journal of Biomedical Materials Research - Part A, 2021, 109, 2438-2448.	4.0	9
31	Slit pores preferred over cylindrical pores for high selectivity in biomolecular filtration. Journal of Colloid and Interface Science, 2018, 517, 176-181.	9.4	8
32	A distributed solute model: an extended two-pore model with application to the glomerular sieving of Ficoll. American Journal of Physiology - Renal Physiology, 2018, 314, F1108-F1116.	2.7	8
33	Improved Detection of Lung Fluid With Standardized Acoustic Stimulation of the Chest. IEEE Journal of Translational Engineering in Health and Medicine, 2018, 6, 1-7.	3.7	7
34	Endovascular Ion Exchange Chemofiltration Device Reduces Off-Target Doxorubicin Exposure in a Hepatic Intra-arterial Chemotherapy Model. Radiology Imaging Cancer, 2019, 1, e190009.	1.6	7
35	Genome Engineering Renal Epithelial Cells for Enhanced Volume Transport Function. Cellular and Molecular Bioengineering, 2020, 13, 17-26.	2.1	7
36	A Scalable, Hierarchical Rib Design for Larger-Area, Higher-Porosity Nanoporous Membranes for the Implantable Bio-Artificial Kidney. Journal of Microelectromechanical Systems, 2020, 29, 762-768.	2.5	7

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37	Opportunities for Regulatory Changes to Promote Pediatric Device Innovation in the United States: Joint Recommendations From Pediatric Innovator Roundtables. IEEE Journal of Translational Engineering in Health and Medicine, 2021, 9, 1-5.	3.7	7
38	Silicon nanopore membrane technology for an implantable artificial kidney. , 2009, , .		6
39	Dual-Port Planar Antenna for Implantable Inductively Coupled Sensors. IEEE Transactions on Antennas and Propagation, 2017, 65, 5732-5739.	5.1	6
40	Ultrafiltration for management of fluid overload in patients with heart failure. Artificial Organs, 2020, 44, 129-139.	1.9	6
41	Glucose-Stimulated Insulin Response of Silicon Nanopore-Immunoprotected Islets under Convective Transport. ACS Biomaterials Science and Engineering, 2017, 3, 1051-1061.	5.2	5
42	Sensitivity analysis of an implantable LC Based passive sensor. , 2010, , .		4
43	Coupling enhancement of planar spiral coils using planar ferrite for biomedical implants. , 2012, , .		4
44	Metformin and Inhibition of Transforming Growth Factor-Beta Stimulate In Vitro Transport in Primary Renal Tubule Cells. Tissue Engineering - Part A, 2020, 26, 1091-1098.	3.1	4
45	A parallel-trace high-Q planar spiral coil for biomedical implants. , 2012, , .		3
46	Tabla: An acoustic device designed for low cost pneumonia detection. , 2017, , .		3
47	A low-input-voltage wireless power transfer for biomedical implants. , 2015, , .		0
48	Treating the kidneys â€" a new era in the United States (and beyond). Nature Reviews Nephrology, 2019, 15, 727-728.	9.6	0