Christopher A Fraker

List of Publications by Year
in descending order

42 papers	1,853 citations	257450 24 h-index	330143 37 g-index
43 all docs	43 docs citations	43 times ranked	2286 citing authors

#	Article	IF	Citations
1	Determining chemical exchange rate constants in nanoemulsions using nuclear magnetic resonance. Physical Chemistry Chemical Physics, 2021, 23, 19244-19254.	2.8	2
2	The Importance of Proper Oxygenation in 3D Culture. Frontiers in Bioengineering and Biotechnology, 2021, 9, 634403.	4.1	20
3	Natural Killer Cells as Key Mediators in Type I Diabetes Immunopathology. Frontiers in Immunology, 2021, 12, 722979.	4.8	12
4	Optical sensor arrays designed for guided manufacture of perfluorocarbon nanoemulsions with a non-synthetic stabilizer. Acta Biomaterialia, 2021, 136, 558-569.	8.3	3
5	Reverse-dialysis can be misleading for drug release studies in emulsions as demonstrated by NMR dilution experiments. International Journal of Pharmaceutics, 2021, 608, 121093.	5.2	1
6	Rapid quantification of isoflurane in anesthetic nanoemulsions using Attenuated Total Reflectance Fourier Transform Infrared Spectroscopy (ATR-FTIR). Vibrational Spectroscopy, 2020, 109, 103095.	2.2	1
7	Long-term culture of human pancreatic slices as a model to study real-time islet regeneration. Nature Communications, 2020, 11, 3265.	12.8	34
8	A Double Fail-Safe Approach to Prevent Tumorigenesis and Select Pancreatic Î² Cells from Human Embryonic Stem Cells. Stem Cell Reports, 2019, 12, 611-623.	4.8	32
9	2139-P: Real-Time Monitoring and High-Resolution Analysis of Human Pancreatic Ductal Plasticity. Diabetes, 2019, 68, .	0.6	0
10	Stable perfluorocarbon emulsions for the delivery of halogenated ether anesthetics. Colloids and Surfaces B: Biointerfaces, 2018, 172, 797-805.	5.0	5
11	Manganese oxide particles as cytoprotective, oxygen generating agents. Acta Biomaterialia, 2017, 59, 327-337.	8.3	27
12	The Folate Cycle As a Cause of Natural Killer Cell Dysfunction and Viral Etiology in Type 1 Diabetes. Frontiers in Endocrinology, 2017, 8, 315.	3.5	27
13	Corneal elasticity after oxygen enriched high intensity corneal cross linking assessed using atomic force microscopy. Experimental Eye Research, 2016, 153, 51-55.	2.6	18
14	The Expanding Role of Natural Killer Cells in Type 1 Diabetes and Immunotherapy. Current Diabetes Reports, 2016, 16, 109.	4.2	26
15	Device design and materials optimization of conformal coating for islets of Langerhans. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 10514-10519.	7.1	167
16	Influence of In Vitro and In Vivo Oxygen Modulation on Î² Cell Differentiation From Human Embryonic Stem Cells. Stem Cells Translational Medicine, 2014, 3, 277-289.	3.3	38
17	Synthesis of macroporous poly(dimethylsiloxane) scaffolds for tissue engineering applications. Journal of Biomaterials Science, Polymer Edition, 2013, 24, 1041-1056.	3.5	58
18	A Physiological Pattern of Oxygenation Using Perfluorocarbon-Based Culture Devices Maximizes Pancreatic Islet Viability and Enhances Î²-Cell Function. Cell Transplantation, 2013, 22, 1723-1733.	2.5	27

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19	Macroporous Three-Dimensional PDMS Scaffolds for Extrahepatic Islet Transplantation. Cell Transplantation, 2013, 22, 1123-1135.	2.5	112
20	Preventing hypoxia-induced cell death in beta cells and islets via hydrolytically activated, oxygen-generating biomaterials. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 4245-4250.	7.1	335
21	Optimization of perfluoro nano-scale emulsions: The importance of particle size for enhanced oxygen transfer in biomedical applications. Colloids and Surfaces B: Biointerfaces, 2012, 98, 26-35.	5.0	47
22	Perfluorinated alginate for cellular encapsulation. Journal of Biomedical Materials Research - Part A, 2012, 100A, 1963-1971.	4.0	25
23	Complementary Methods for the Determination of Dissolved Oxygen Content in Perfluorocarbon Emulsions and Other Solutions. Journal of Physical Chemistry B, 2011, 115, 10547-10552.	2.6	35
24	Covalent stabilization of alginate hydrogel beads via Staudinger ligation: Assessment of poly(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 T	4.0	22
25	TAT-Mediated Transduction of MafA Protein In Utero Results in Enhanced Pancreatic Insulin Expression and Changes in Islet Morphology. PLoS ONE, 2011, 6, e22364.	2.5	14
26	Oxygen: a master regulator of pancreatic development?. Biology of the Cell, 2009, 101, 431-440.	2.0	33
27	Modeling and in vitro and in vivo characterization ofÂaÂtissue engineered pancreatic substitute. Journal of Combinatorial Optimization, 2009, 17, 54-73.	1.3	4
28	Quantitative Assessment of Islet Cell Products: Estimating the Accuracy of the Existing Protocol and Accounting for Islet Size Distribution. Cell Transplantation, 2009, 18, 1223-1235.	2.5	61
29	A Novel Cell Culture Platform for In-Vitro Enhancement of Oxygen Delivery Leads to Improved Physiological Function of Isolated Islets of Langerhans. IFMBE Proceedings, 2009, , 163-164.	0.3	1
30	Optimization of Perfluorocarbon Emulsions for Cellular Encapsulation. IFMBE Proceedings, 2009, , 165-166.	0.3	0
31	Design and Development of a Highly Macroporous Silicone Scaffold as a Bioartificial Pancreas for Type 1 Diabetes. IFMBE Proceedings, 2009, , 233-234.	0.3	0
32	Rapamycin Impairs Î²-Cell Proliferation In Vivo. Transplantation Proceedings, 2008, 40, 436-437.	0.6	25
33	Rapamycin Impairs In Vivo Proliferation of Islet Beta-Cells. Transplantation, 2007, 84, 1576-1583.	1.0	97
34	Effects of Low Glucose Concentrations on Oxygen Consumption Rates of Intervertebral Disc Cells. Spine, 2007, 32, 2063-2069.	2.0	27
35	Modeling and in vitro and in vivo characterization of a tissue engineered pancreatic substitute. AIP Conference Proceedings, 2007, , .	0.4	0
36	Shipment of Human Islets for Transplantation. American Journal of Transplantation, 2007, 7, 1010-1020.	4.7	106

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37	Enhanced Oxygenation Promotes Î²-Cell Differentiation In Vitro. Stem Cells, 2007, 25, 3155-3164.	3.2	60
38	Improved Human Islet Isolation Using Nicotinamide. American Journal of Transplantation, 2006, 6, 2060-2068.	4.7	69
39	Heme oxygenase-1 fused to a TAT peptide transduces and protects pancreatic Î²-cells. Biochemical and Biophysical Research Communications, 2003, 305, 876-881.	2.1	66
40	Improved human islet isolation outcome from marginal donors following addition of oxygenated perfluorocarbon to the cold-storage solution. Transplantation, 2003, 75, 1524-1527.	1.0	142
41	USE OF OXYGENATED PERFLUOROCARBON TOWARD MAKING EVERY PANCREAS COUNT. Transplantation, 2002, 74, 1811-1812.	1.0	48
42	Neonatal porcine pancreatic cell clusters as a potential source for transplantation in humans: Characterization of proliferation, apoptosis, xenoantigen expression and gene delivery with recombinant AAV. Xenotransplantation, 2002, 9, 14-24.	2.8	26