Megan C Frost

List of Publications by Year
in descending order

43 papers	2,228 citations	304743 22 h-index	289244 40 g-index
43 all docs	43 docs citations	43 times ranked	2880 citing authors

#	Article	IF	Citations
1	Increasing Mechanical Strength of Gelatin Hydrogels by Divalent Metal Ion Removal. Scientific Reports, 2014, 4, 4706.	3.3	340
2	Polymers incorporating nitric oxide releasing/generating substances for improved biocompatibility of blood-contacting medical devices. Biomaterials, 2005, 26, 1685-1693.	11.4	315
3	In Vivo Chemical Sensors: Tackling Biocompatibility. Analytical Chemistry, 2006, 78, 7370-7377.	6.5	139
4	Implantable chemical sensors for real-time clinical monitoring: progress and challenges. Current Opinion in Chemical Biology, 2002, 6, 633-641.	6.1	136
5	Controlled Photoinitiated Release of Nitric Oxide from Polymer Films ContainingS-Nitroso-N-acetyl-dl-penicillamine Derivatized Fumed Silica Filler. Journal of the American Chemical Society, 2004, 126, 1348-1349.	13.7	115
6	Nitric Oxide-Releasing Hydrophobic Polymers: Preparation, Characterization, and Potential Biomedical Applications. Free Radical Biology and Medicine, 2004, 37, 926-936.	2.9	100
7	In Vivo Biocompatibility and Analytical Performance of Intravascular Amperometric Oxygen Sensors Prepared with Improved Nitric Oxide-Releasing Silicone Rubber Coating. Analytical Chemistry, 2002, 74, 5942-5947.	6.5	93
8	Synthesis and Characterization of Polymethacrylate-Based Nitric Oxide Donors. Journal of the American Chemical Society, 2002, 124, 12182-12191.	13.7	90
9	Synthesis, characterization, and controlled nitric oxide release fromS-nitrosothiol-derivatized fumed silica polymer filler particles. Journal of Biomedical Materials Research - Part A, 2005, 72A, 409-419.	4.0	85
10	Highly Water-Soluble BODIPY-Based Fluorescent Probe for Sensitive and Selective Detection of Nitric Oxide in Living Cells. ACS Applied Materials & Interfaces, 2013, 5, 4107-4112.	8.0	73
11	Effect of varying nitric oxide release to prevent platelet consumption and preserve platelet function in an in vivo model of extracorporeal circulation. Perfusion (United Kingdom), 2007, 22, 193-200.	1.0	66
12	Transition-Metal-Mediated Release of Nitric Oxide (NO) from S-Nitroso-N-acetyl-<scp>d</scp>-penicillamine (SNAP): Potential Applications for Endogenous Release of NO at the Surface of Stents Via Corrosion Products. ACS Applied Materials & Interfaces, 2016, 8, 10128-10135.	8.0	61
13	Biomimetic recyclable microgels for on-demand generation of hydrogen peroxide and antipathogenic application. Acta Biomaterialia, 2019, 83, 109-118.	8.3	58
14	Real-Time Monitoring of Critical Care Analytes in the Bloodstream with Chemical Sensors: Progress and Challenges. Annual Review of Analytical Chemistry, 2015, 8, 171-192.	5.4	52
15	Preparation and characterization of implantable sensors with nitric oxide release coatings. Microchemical Journal, 2003, 74, 277-288.	4.5	51
16	Separation using planar chromatography with electroosmotic flow. Journal of Chromatography A, 2000, 903, 211-217.	3.7	49
17	Fabrication and characterization of an inorganic gold and silica nanoparticle mediated drug delivery system for nitric oxide. Nanotechnology, 2010, 21, 305102.	2.6	48
18	Fabrication and Characterization of a Nitric Oxide-Releasing Nanofibrous Gelatin Matrix. Biomacromolecules, 2013, 14, 2521-2530.	5.4	37

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19	S-Nitroso-N-acetyl-D-penicillamine covalently linked to polydimethylsiloxane (SNAPâ€“PDMS) for use as a controlled photoinitiated nitric oxide release polymer. Science and Technology of Advanced Materials, 2011, 12, 055007.	6.1	36
20	Nitric Oxide-Releasing Fluorescence-Based Oxygen Sensing Polymeric Films. Analytical Chemistry, 2002, 74, 5937-5941.	6.5	34
21	Direct measurement of actual levels of nitric oxide (NO) in cell culture conditions using soluble NO donors. Redox Biology, 2016, 9, 1-14.	9.0	34
22	Fabrication and Short-Term in Vivo Performance of a Natural Elastic Laminaâ€“Polymeric Hybrid Vascular Graft. ACS Applied Materials & Interfaces, 2015, 7, 16202-16212.	8.0	26
23	Nitric oxide leads to cytoskeletal reorganization in the retinal pigment epithelium under oxidative stress. Advances in Bioscience and Biotechnology (Print), 2012, 03, 1167-1178.	0.7	23
24	Synthesis and Characterization of the Novel Nitric Oxide (NO) Donating Compound, S-nitroso-N-acetyl-D-penicillamine Derivatized Cyclam (SNAP-Cyclam). ACS Applied Materials & Interfaces, 2016, 8, 5898-5905.	8.0	21
25	S-Nitroso-N-acetylpenicillamine (SNAP) Derivatization of Peptide Primary Amines to Create Inducible Nitric Oxide Donor Biomaterials. ACS Applied Materials & Interfaces, 2013, 5, 8430-8439.	8.0	17
26	Dual Switch Mechanism of Erythropoietin as an Antiapoptotic and Pro-Angiogenic Determinant in the Retina. ACS Omega, 2020, 5, 21113-21126.	3.5	16
27	Synthesis and Characterization of Controlled Nitric Oxide Release from S-Nitroso-N-Acetyl-d-Penicillamine Covalently Linked to Polyvinyl Chloride (SNAP-PVC). Bioengineering, 2018, 5, 72.	3.5	15
28	Study of enzyme-catalyzed reactions in organic solvents using multiple linear regression. Journal of Molecular Catalysis B: Enzymatic, 1999, 7, 273-282.	1.8	14
29	Effects of local nitric oxide release on human mesenchymal stem cell attachment and proliferation on gelatin hydrogel surface. Surface Innovations, 2013, 1, 224-232.	2.3	13
30	CellNO trap: Novel device for quantitative, real-time, direct measurement of nitric oxide from cultured RAW 267.4 macrophages. Redox Biology, 2016, 8, 383-397.	9.0	12
31	Novel device for continuous spatial control and temporal delivery of nitric oxide for in vitro cell culture. Redox Biology, 2013, 1, 332-339.	9.0	10
32	Fabrication and In Vivo Evaluation of Nitric Oxide-Releasing Electrochemical Oxygen-Sensing Catheters. Methods in Enzymology, 2004, 381, 704-715.	1.0	9
33	Wireless platform for controlled nitric oxide releasing optical fibers for mediating biological response to implanted devices. Nitric Oxide - Biology and Chemistry, 2012, 27, 228-234.	2.7	8
34	S-Nitroso-N-Acetyl-D-Penicillamine Modified Hyperbranched Polyamidoamine for High-Capacity Nitric Oxide Storage and Release. Bioengineering, 2020, 7, 9.	3.5	7
35	Investigative Study on Nitric Oxide Production in Human Dermal Fibroblast Cells under Normal and High Glucose Conditions. Medical Sciences (Basel, Switzerland), 2018, 6, 99.	2.9	6
36	Empirical equation for the accurate prediction of retention in planar chromatography. Journal of Chromatography A, 1997, 788, 207-211.	3.7	5

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37	Inducible nitric oxide releasing poly-(ethylene glycol)-fibrinogen adhesive hydrogels for tissue regeneration. Materials Research Society Symposia Proceedings, 2013, 1569, 39-44.	0.1	4
38	In Vivo Sensors for Continuous Monitoring of Blood Gases, Glucose, and Lactate: Biocompatibility Challenges and Potential Solutions. RSC Detection Science, 2013, , 129-155.	0.0	4
39	Improving the Performance of Implantable Sensors with Nitric Oxide Release. , 2017, , 191-219.		2
40	Magnetoelastic galfenol as a stent material for wirelessly controlled degradation rates. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2019, 107, 232-241.	3.4	2
41	Control of Orthodontic Tooth Movement by Nitric Oxide Releasing Nanoparticles in Sprague-Dawley Rats. Frontiers in Materials, 2022, 9, .	2.4	2
42	Covalent Linking of pH-Sensitive Dye to Fumed Silica. Journal of Medical Devices, Transactions of the ASME, 2010, 4, .	0.7	0
43	Toward the Development of Novel Nitric Oxide Donating Polymeric Materials to Improve the Biocompatibility of Implanted Devices. Journal of Medical Devices, Transactions of the ASME, 2010, 4, .	0.7	0