

Dana M Spence

List of Publications by Year in Descending Order

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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.

72
papers

3,458
citations

30
h-index

58
g-index

77
ext. papers

3,847
ext. citations

5.6
avg, IF

5.62
L-index

#	Paper	IF	Citations
72	Specific Binding of Leptin to Red Blood Cells Delivers a Pancreatic Hormone and Stimulates ATP Release. <i>Molecular Pharmaceutics</i> , 2021 , 18, 2438-2447	5.6	2
71	A novel 3D-printed centrifugal ultrafiltration method reveals in vivo glycation of human serum albumin decreases its binding affinity for zinc. <i>Metallomics</i> , 2020 , 12, 1036-1043	4.5	3
70	Human Cellular Retinol Binding Protein II Forms a Domain-Swapped Trimer Representing a Novel Fold and a New Template for Protein Engineering. <i>ChemBioChem</i> , 2020 , 21, 3192-3196	3.8	0
69	Applications of 3D-Printing for Improving Chemistry Education. <i>Journal of Chemical Education</i> , 2020 , 97, 112-117	2.4	23
68	Engineering the hCRBP II Domain-Swapped Dimer into a New Class of Protein Switches. <i>Journal of the American Chemical Society</i> , 2019 , 141, 17125-17132	16.4	8
67	PolyJet 3D-Printed Enclosed Microfluidic Channels without Photocurable Supports. <i>Analytical Chemistry</i> , 2019 , 91, 6910-6917	7.8	41
66	Review of 3D Cell Culture with Analysis in Microfluidic Systems. <i>Analytical Methods</i> , 2019 , 11, 4220-4232	3.2	44
65	Rapid Prototyping and Image Fusion Guidance for Transcatheter Closure of Superior Sinus Venous Atrial Septal Defect. <i>SN Comprehensive Clinical Medicine</i> , 2019 , 1, 996-1000	2.7	2
64	A rapid method for post-antibiotic bacterial susceptibility testing. <i>PLoS ONE</i> , 2019 , 14, e0210534	3.7	14
63	Technologies for Measuring Pharmacokinetic Profiles. <i>Annual Review of Analytical Chemistry</i> , 2018 , 11, 79-100	12.5	16
62	Plate Reader Compatible 3D-Printed Device for Teaching Equilibrium Dialysis Binding Assays. <i>Journal of Chemical Education</i> , 2018 , 95, 1662-1667	2.4	13
61	Steroid inhibition of erythrocyte-derived ATP reduces endothelial cell production of nitric oxide in a 3D-printed fluidic model. <i>Analytical Methods</i> , 2018 , 10, 3416-3422	3.2	2
60	Ultrafiltration binding analyses of glycated albumin with a 3D-printed syringe attachment. <i>Analytical and Bioanalytical Chemistry</i> , 2018 , 410, 7565-7573	4.4	5
59	C-Peptide replacement therapy in type 1 diabetes: are we in the trough of disillusionment?. <i>Molecular BioSystems</i> , 2017 , 13, 1432-1437		11
58	A Printed Equilibrium Dialysis Device with Integrated Membranes for Improved Binding Affinity Measurements. <i>Analytical Chemistry</i> , 2017 , 89, 7302-7306	7.8	29
57	Recent Advances in Analytical Chemistry by 3D Printing. <i>Analytical Chemistry</i> , 2017 , 89, 57-70	7.8	200
56	A quantitative, in vitro appraisal of experimental low-glucose storage solutions used for blood banking. <i>Analytical Methods</i> , 2016 , 8, 6856-6864	3.2	5

55	3D-printed Microfluidic Devices: Fabrication, Advantages and Limitations-a Mini Review. <i>Analytical Methods</i> , 2016 , 8, 6005-6012	3.2	148
54	A Diffusion-Based and Dynamic 3D-Printed Device That Enables Parallel in Vitro Pharmacokinetic Profiling of Molecules. <i>Analytical Chemistry</i> , 2016 , 88, 1864-70	7.8	37
53	Multiphoton excited hemoglobin fluorescence and third harmonic generation for non-invasive microscopy of stored blood. <i>Biomedical Optics Express</i> , 2016 , 7, 3449-3460	3.5	22
52	Drug penetration and metabolism in 3D cell cultures treated in a 3D printed fluidic device: assessment of irinotecan via MALDI imaging mass spectrometry. <i>Proteomics</i> , 2016 , 16, 1814-21	4.8	54
51	An In Vitro Diagnostic for Multiple Sclerosis Based on C-peptide Binding to Erythrocytes. <i>EBioMedicine</i> , 2016 , 11, 249-252	8.8	4
50	C-peptide and zinc delivery to erythrocytes requires the presence of albumin: implications in diabetes explored with a 3D-printed fluidic device. <i>Integrative Biology (United Kingdom)</i> , 2015 , 7, 534-43	3.7	30
49	Polymer Coatings in 3D-Printed Fluidic Device Channels for Improved Cellular Adherence Prior to Electrical Lysis. <i>Analytical Chemistry</i> , 2015 , 87, 6335-41	7.8	40
48	Endothelium-derived nitric oxide production is increased by ATP released from red blood cells incubated with hydroxyurea. <i>Nitric Oxide - Biology and Chemistry</i> , 2014 , 38, 1-7	5	16
47	Evaluation of 3D printing and its potential impact on biotechnology and the chemical sciences. <i>Analytical Chemistry</i> , 2014 , 86, 3240-53	7.8	1085
46	3D-printed fluidic devices enable quantitative evaluation of blood components in modified storage solutions for use in transfusion medicine. <i>Analyst, The</i> , 2014 , 139, 3219-26	5	59
45	Microfluidic device with tunable post arrays and integrated electrodes for studying cellular release. <i>Analyst, The</i> , 2014 , 139, 5686-94	5	10
44	Microfluidic evaluation of red cells collected and stored in modified processing solutions used in blood banking. <i>Integrative Biology (United Kingdom)</i> , 2014 , 6, 65-75	3.7	12
43	3D printed microfluidic devices with integrated versatile and reusable electrodes. <i>Lab on A Chip</i> , 2014 , 14, 2023-32	7.2	213
42	Integration of multiple components in polystyrene-based microfluidic devices part I: fabrication and characterization. <i>Analyst, The</i> , 2013 , 138, 129-36	5	31
41	Integration of multiple components in polystyrene-based microfluidic devices part II: cellular analysis. <i>Analyst, The</i> , 2013 , 138, 137-43	5	21
40	C-peptide-stimulated nitric oxide production in a cultured pulmonary artery endothelium is erythrocyte mediated and requires Zn(2+). <i>Diabetes/Metabolism Research and Reviews</i> , 2013 , 29, 44-52	7.5	14
39	A 3D printed fluidic device that enables integrated features. <i>Analytical Chemistry</i> , 2013 , 85, 5622-6	7.8	177
38	Measuring P2X1 receptor activity in washed platelets in the absence of exogenous apyrase. <i>Analytical Methods</i> , 2012 , 4, 101-105	3.2	1

37	Microfluidic transendothelial electrical resistance measurement device that enables blood flow and postgrowth experiments. <i>Analytical Chemistry</i> , 2011 , 83, 4296-301	7.8	45
36	Use of the red blood cell as a simple drug target and diagnostic by manipulating and monitoring its ability to release adenosine triphosphate (ATP). <i>Pure and Applied Chemistry</i> , 2010 , 82, 1623-1634	2.1	4
35	Direct plate-reader measurement of nitric oxide released from hypoxic erythrocytes flowing through a microfluidic device. <i>Analytical Chemistry</i> , 2010 , 82, 7492-7	7.8	30
34	Mass spectrometric characterization and activity of zinc-activated proinsulin C-peptide and C-peptide mutants. <i>Analyst, The</i> , 2010 , 135, 278-88	5	16
33	Evaluating the effects of estradiol on endothelial nitric oxide stimulated by erythrocyte-derived ATP using a microfluidic approach. <i>Analytical and Bioanalytical Chemistry</i> , 2010 , 397, 3369-75	4.4	19
32	Personalized metabolic assessment of erythrocytes using microfluidic delivery to an array of luminescent wells. <i>Analytical Chemistry</i> , 2009 , 81, 3102-8	7.8	14
31	A perspective on the role of metals in diabetes: past findings and possible future directions. <i>Metallomics</i> , 2009 , 1, 32-41	4.5	57
30	A microfluidic technique for monitoring bloodstream analytes indicative of C-peptide resistance in type 2 diabetes. <i>Analyst, The</i> , 2009 , 134, 188-93	5	10
29	Zinc-activated C-peptide resistance to the type 2 diabetic erythrocyte is associated with hyperglycemia-induced phosphatidylserine externalization and reversed by metformin. <i>Molecular BioSystems</i> , 2009 , 5, 1157-62		21
28	A Molecular Level Understanding of Zinc Activation of C-peptide and its Effects on Cellular Communication in the Bloodstream. <i>Review of Diabetic Studies</i> , 2009 , 6, 148-58	3.6	17
27	Measuring the simultaneous effects of hypoxia and deformation on ATP release from erythrocytes. <i>Analyst, The</i> , 2008 , 133, 678-82	5	33
26	Interactions between multiple cell types in parallel microfluidic channels: monitoring platelet adhesion to an endothelium in the presence of an anti-adhesion drug. <i>Analytical Chemistry</i> , 2008 , 80, 7543-8	7.8	39
25	Merging Microfluidics with Micro-titre Technology for More Efficient Drug Discovery. <i>Journal of the Association for Laboratory Automation</i> , 2008 , 13, 275-279		4
24	Metal-activated C-peptide facilitates glucose clearance and the release of a nitric oxide stimulus via the GLUT1 transporter. <i>Diabetologia</i> , 2008 , 51, 175-82	10.3	50
23	Simultaneous determination of cell aging and ATP release from erythrocytes and its implications in type 2 diabetes. <i>Analytica Chimica Acta</i> , 2008 , 618, 227-33	6.6	43
22	Fabrication and evaluation of a 3-dimensional microchip device where carbon microelectrodes individually address channels in the separate fluidic layers. <i>Analyst, The</i> , 2007 , 132, 1246-53	5	3
21	Addressing a vascular endothelium array with blood components using underlying microfluidic channels. <i>Lab on A Chip</i> , 2007 , 7, 1256-9	7.2	55
20	Red blood cell stimulation of platelet nitric oxide production indicated by quantitative monitoring of the communication between cells in the bloodstream. <i>Analytical Chemistry</i> , 2007 , 79, 5133-8	7.8	35

19	Fluorescence determination of nitric oxide production in stimulated and activated platelets. <i>Analytical Chemistry</i> , 2007 , 79, 2421-6	7.8	23
18	Fluorescence monitoring of ATP-stimulated, endothelium-derived nitric oxide production in channels of a poly(dimethylsiloxane)-based microfluidic device. <i>Analytical Chemistry</i> , 2006 , 78, 3193-7	7.8	42
17	Microfluidic technologies as platforms for performing quantitative cellular analyses in an in vitro environment. <i>Analyst, The</i> , 2006 , 131, 1197-206	5	47
16	Dynamic monitoring of glutathione in erythrocytes, without a separation step, in the presence of an oxidant insult. <i>Analytical Chemistry</i> , 2006 , 78, 8556-60	7.8	26
15	An altered oxidant defense system in red blood cells affects their ability to release nitric oxide-stimulating ATP. <i>Molecular BioSystems</i> , 2006 , 2, 305-11		51
14	Monitoring erythrocytes in a microchip channel that narrows uniformly: towards an improved microfluidic-based mimic of the microcirculation. <i>Journal of Chromatography A</i> , 2006 , 1111, 220-7	4.5	15
13	Amperometric determination of nitric oxide derived from pulmonary artery endothelial cells immobilized in a microchip channel. <i>Analyst, The</i> , 2004 , 129, 995-1000	5	56
12	Bioanalytical challenges for analytical chemists. <i>Analyst, The</i> , 2004 , 129, 102-4	5	5
11	Deformation-induced release of ATP from erythrocytes in a poly(dimethylsiloxane)-based microchip with channels that mimic resistance vessels. <i>Analytical Chemistry</i> , 2004 , 76, 4849-55	7.8	58
10	Fabrication of carbon microelectrodes with a micromolding technique and their use in microchip-based flow analyses. <i>Analyst, The</i> , 2004 , 129, 400-5	5	53
9	Flow-based amperometric detection of dopamine in an immobilized cell reactor. <i>Journal of Neuroscience Methods</i> , 2003 , 124, 129-34	3	11
8	Detection of ATP-induced nitric oxide in a biomimetic circulatory vessel containing an immobilized endothelium. <i>Analytical Chemistry</i> , 2003 , 75, 145-51	7.8	20
7	Determination of erythrocyte deformability and its correlation to cellular ATP release using microbore tubing with diameters that approximate resistance vessels in vivo. <i>Analyst, The</i> , 2003 , 128, 1163-8	5	38
6	Determination of ATP release from erythrocytes using microbore tubing as a model of resistance vessels in vivo. <i>Analytical Chemistry</i> , 2002 , 74, 2274-8	7.8	51
5	Chemiluminescence detection of ATP release from red blood cells upon passage through microbore tubing. <i>Analyst, The</i> , 2001 , 126, 1257-60	5	36
4	Performance enhancement in flow reversal flow injection using on-capillary detection. <i>Analytica Chimica Acta</i> , 2000 , 417, 185-190	6.6	4
3	Capillary flow injection: Performance under pressure. <i>Analytica Chimica Acta</i> , 1998 , 366, 305-311	6.6	6
2	Factors Affecting Zone Variance in a Capillary Flow Injection System. <i>Analytical Chemistry</i> , 1997 , 69, 165-169	6.9	21

1 Design Considerations for Capillary flow Injection Systems. *Instrumentation Science and Technology*,
1996, 24, 103-113

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