Sehyun Shin

List of Publications by Year
in descending order

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123	3,494	136740	155451
papers	citations	32 h-index	55 g-index

126	126	126	3982
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Critical shear stress of red blood cells as a novel integrated biomarker for screening chronic kidney diseases in cases of type 2 diabetes. Clinical Hemorheology and Microcirculation, 2022, , 1-11.	0.9	1
2	Total microfluidic platform strategy for liquid biopsy. Journal of Cellular Biotechnology, 2021, 6, 113-137.	0.1	0
3	A rapid diagnosis of SARS-CoV-2 using DNA hydrogel formation on microfluidic pores. Biosensors and Bioelectronics, 2021, 177, 113005.	5.3	51
4	Performance comparison of aspirin assay between anysis and verifynow: Assessment of therapeutic platelet inhibition in patients with cardiac diseases. Clinical Hemorheology and Microcirculation, 2021, 79, 1-8.	0.9	1
5	Assessment of therapeutic platelet inhibition in cardiac patients: Comparative study between VerifyNow-P2Y12 and Anysis-P2Y12 assay. Clinical Hemorheology and Microcirculation, 2021, 78, 439-448.	0.9	3
6	ExoCAS-2: Rapid and Pure Isolation of Exosomes by Anionic Exchange Using Magnetic Beads. Biomedicines, 2021, 9, 28.	1.4	26
7	Performance comparison of the PFA-200 and Anysis-200: Assessment of bleeding risk screening in cardiology patients. Clinical Hemorheology and Microcirculation, 2021, , 1-11.	0.9	2
8	Micropore device for identification of 4-bit hydrogel barcode. Sensors and Actuators B: Chemical, 2020, 307, 127622.	4.0	4
9	Assessment of Fibrinogen Macromolecules Interaction with Red Blood Cells Membrane by Means of Laser Aggregometry, Flow Cytometry, and Optical Tweezers Combined with Microfluidics. Biomolecules, 2020, 10, 1448.	1.8	15
10	Platelet thrombus formation by upstream activation and downstream adhesion of platelets in a microfluidic system. Biosensors and Bioelectronics, 2020, 165, 112395.	5.3	10
11	Performance comparison of platelet function analyzers in cardiology patients: VerifyNow and Anysis-200 aspirin assays. Clinical Hemorheology and Microcirculation, 2020, 76, 33-42.	0.9	6
12	Rapid and Efficient Isolation of Exosomes by Clustering and Scattering. Journal of Clinical Medicine, 2020, 9, 650.	1.0	21
13	Precision cell-free DNA extraction for liquid biopsy by integrated microfluidics. Npj Precision Oncology, 2020, 4, 3.	2.3	32
14	Potential Diagnostic Hemorheological Indexes for Chronic Kidney Disease in Patients With Type 2 Diabetes. Frontiers in Physiology, 2019, 10, 1062.	1.3	20
15	Dynamical Clustering and Band Formation of Particles in a Marangoni Vortexing Droplet. Langmuir, 2019, 35, 8977-8983.	1.6	4
16	Recent advances in microfluidic platelet function assays: Moving microfluidics into clinical applications. Clinical Hemorheology and Microcirculation, 2019, 71, 249-266.	0.9	14
17	Use of RBC deformability index as an early marker of diabetic nephropathy. Clinical Hemorheology and Microcirculation, 2019, 72, 75-84.	0.9	13
18	Red blood cells interaction mediated by dextran macromolecules: in vitro study using diffuse light scattering technique and optical tweezers. , 2019, , .		0

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19	Rapid molecular diagnosis of infectious viruses in microfluidics using DNA hydrogel formation. Biosensors and Bioelectronics, 2018, 108, 9-13.	5.3	58
20	Centrifugation-free extraction of circulating nucleic acids using immiscible liquid under vacuum pressure. Scientific Reports, 2018, 8, 5467.	1.6	23
21	Asymmetric fluttering ferromagnetic bar-driven inertial micropump in microfluidics. Biomicrofluidics, 2018, 12, 014115.	1.2	2
22	Miniaturized surface plasmon resonance biosensor with vacuum-driven hydrodynamic focusing. Sensors and Actuators B: Chemical, 2018, 254, 64-71.	4.0	10
23	Comparative evaluation of Plateletworks, Multiplate analyzer and Platelet function analyzer-200 in cardiology patients. Clinical Hemorheology and Microcirculation, 2018, 70, 257-265.	0.9	11
24	Rheological alteration of erythrocytes exposed to carbon nanotubes. Clinical Hemorheology and Microcirculation, 2017, 65, 49-56.	0.9	7
25	Effect of shear-induced platelet activation on red blood cell aggregation. Clinical Hemorheology and Microcirculation, 2017, 66, 97-104.	0.9	4
26	Altering the coffee-ring effect by adding a surfactant-like viscous polymer solution. Scientific Reports, 2017, 7, 500.	1.6	100
27	Effects of lipopolysaccharide on changes in red blood cells in a mice endotoxemia model. Clinical Hemorheology and Microcirculation, 2016, 63, 305-312.	0.9	4
28	Unsolved Favorable Effect of Statin on Blood Viscosity. Korean Circulation Journal, 2016, 46, 145.	0.7	0
29	Measurement of platelet aggregation functions using whole blood migration ratio in a microfluidic chip. Clinical Hemorheology and Microcirculation, 2016, 62, 151-163.	0.9	2
30	Influence of shear stress on erythrocyte aggregation. Clinical Hemorheology and Microcirculation, 2016, 62, 165-171.	0.9	9
31	Haemocompatibility evaluation of silica nanomaterials using hemorheological measurements. Clinical Hemorheology and Microcirculation, 2016, 62, 99-107.	0.9	12
32	Effects of various acute hypoxic conditions on the hemorheological response during exercise and recovery1. Clinical Hemorheology and Microcirculation, 2016, 63, 451-460.	0.9	21
33	A simple method for activating the platelets used in microfluidic platelet aggregation tests: Stirring-induced platelet activation. Biomicrofluidics, 2016, 10, 064118.	1.2	33
34	Fully Automated Field-Deployable Bioaerosol Monitoring System Using Carbon Nanotube-Based Biosensors. Environmental Science & Technology, 2016, 50, 5163-5171.	4.6	18
35	Characterization at the individual cell level and in whole blood samples of shear stress preventing red blood cells aggregation. Journal of Biomechanics, 2016, 49, 1021-1026.	0.9	16
36	Study of erythrocyte membrane fluctuation using light scattering analysis. , 2016, , .		0

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37	Ultrasensitive Detection of Single-Walled Carbon Nanotubes Using Surface Plasmon Resonance. Analytical Chemistry, 2016, 88, 968-973.	3.2	7
38	Advances in the measurement of red blood cell deformability: A brief review. Journal of Cellular Biotechnology, 2015, 1, 63-79.	0.1	131
39	Occupational and Environmental Health Effects of Nanomaterials. BioMed Research International, 2015, 2015, 1-2.	0.9	3
40	Preface. Biorheology, 2015, 52, 1-3.	1.2	0
41	Analysis of Surface Plasmon Resonance Curves with a Novel Sigmoid-Asymmetric Fitting Algorithm. Sensors, 2015, 15, 25385-25398.	2.1	13
42	Osmotic deformability of erythrocytes at various shear stresses. Clinical Hemorheology and Microcirculation, 2015, 59, 211-218.	0.9	8
43	Hemorheological Approach for Early Detection of Chronic Kidney Disease and Diabetic Nephropathy in Type 2 Diabetes. Diabetes Technology and Therapeutics, 2015, 17, 808-815.	2.4	18
44	Effect of clinical and RBC hemorheological parameters on myocardial perfusion in patients with type 2 diabetes mellitus. Biorheology, 2014, 51, 215-226.	1.2	5
45	Measurement of RBC agglutination with microscopic cell image analysis in a microchannel chip. Clinical Hemorheology and Microcirculation, 2014, 56, 67-74.	0.9	2
46	Sensitive and selective analysis of a wide concentration range of IGFBP7 using a surface plasmon resonance biosensor. Colloids and Surfaces B: Biointerfaces, 2014, 123, 887-891.	2.5	6
47	Partially flexible MEMS neural probe composed of polyimide and sucrose gel for reducing brain damage during and after implantation. Journal of Micromechanics and Microengineering, 2014, 24, 025010.	1.5	43
48	Lateral migration of particles suspended in viscoelastic fluids in a microchannel flow. Microfluidics and Nanofluidics, 2014, 17, 683-692.	1.0	51
49	Toxic effects of silver nanoparticles and nanowires on erythrocyte rheology. Food and Chemical Toxicology, 2014, 67, 80-86.	1.8	92
50	Yield shear stress and disaggregating shear stress of human blood. Korea Australia Rheology Journal, 2014, 26, 191-198.	0.7	6
51	Magnetic Separation of Malaria-Infected Red Blood Cells in Various Developmental Stages. Analytical Chemistry, 2013, 85, 7316-7323.	3.2	89
52	Scalable evaluation of platelet aggregation by the degree of blood migration. Applied Physics Letters, 2013, 103, .	1.5	8
53	Disaggregating shear stress: The roles of cell deformability and fibrinogen concentration. Clinical Hemorheology and Microcirculation, 2013, 55, 231-240.	0.9	23
54	Hemorheological changes caused by lead exposure. Clinical Hemorheology and Microcirculation, 2013, 55, 341-348.	0.9	6

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55	The role of critical shear stress on acute coronary syndrome. Clinical Hemorheology and Microcirculation, 2013, 55, 101-109.	0.9	20
56	Blood characteristics effect on pulse wave velocity. Clinical Hemorheology and Microcirculation, 2013, 55, 193-203.	0.9	8
57	Migration distance-based platelet function analysis in a microfluidic system. Biomicrofluidics, 2013, 7, 064101.	1.2	23
58	Well-based microfluidic chip for monitoring non-contacting cell-to-cell interactions through microchannel. , 2013, , .		0
59	Density-dependent separation of encapsulated cells in a microfluidic channel by using a standing surface acoustic wave. Biomicrofluidics, 2012, 6, 24120-2412010.	1.2	106
60	Investigation of critical shear stress with simultaneous measurement of electrical impedance, capacitance and light backscattering. Clinical Hemorheology and Microcirculation, 2012, 51, 203-212.	0.9	8
61	Study of erythrocyte aggregation at pulsatile flow conditions with backscattering analysis. Clinical Hemorheology and Microcirculation, 2012, 50, 257-266.	0.9	4
62	Continuous separation of microparticles in a microfluidic channel via the elasto-inertial effect of non-Newtonian fluid. Lab on A Chip, 2012, 12, 1347.	3.1	152
63	Separation of platelets from whole blood using standing surface acoustic waves in a microchannel. Lab on A Chip, 2011, 11, 3361.	3.1	162
64	In vitro 3D collective sprouting angiogenesis under orchestrated ANG-1 and VEGF gradients. Lab on A Chip, 2011, 11, 2175.	3.1	142
65	Manipulation of microparticles using surface acoustic wave in microfluidic systems: a brief review. Korea Australia Rheology Journal, 2011, 23, 255-267.	0.7	16
66	Size-dependent microparticles separation through standing surface acoustic waves. Microfluidics and Nanofluidics, 2011, 11, 317-326.	1.0	83
67	Determination of the blood viscosity and yield stress with a pressure-scanning capillary hemorheometer using constitutive models. Korea Australia Rheology Journal, 2011, 23, 1-6.	0.7	29
68	Alteration of red blood cell aggregation during blood storage. Korea Australia Rheology Journal, 2011, 23, 67-70.	0.7	11
69	Measurement of blood coagulation with considering RBC aggregation through a microchip-based light transmission aggregometer. Clinical Hemorheology and Microcirculation, 2011, 47, 211-218.	0.9	11
70	Temperature-dependent threshold shear stress of red blood cell aggregation. Journal of Biomechanics, 2010, 43, 546-550.	0.9	45
71	New fundamental and applied mechanisms in exercise hemorheology. Clinical Hemorheology and Microcirculation, 2010, 45, 131-141.	0.9	23
72	Comparison of light-transmission and -backscattering methods in the measurement of red blood cell aggregation. Journal of Biomedical Optics, 2010, 15, 027003.	1.4	20

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73	Measurement of the temperature-dependent threshold shear-stress of red blood cell aggregation. Review of Scientific Instruments, 2009, 80, 096101.	0.6	3
74	A transient, microfluidic approach to the investigation of erythrocyte aggregation: The threshold shear-stress for erythrocyte disaggregation. Clinical Hemorheology and Microcirculation, 2009, 42, 117-125.	0.9	38
75	New guidelines for hemorheological laboratory techniques. Clinical Hemorheology and Microcirculation, 2009, 42, 75-97.	0.9	390
76	Comparison of three instruments for measuring red blood cell aggregation. Clinical Hemorheology and Microcirculation, 2009, 43, 283-298.	0.9	46
77	Parameterization of red blood cell elongation index â€“ shear stress curves obtained by ektacytometry. Scandinavian Journal of Clinical and Laboratory Investigation, 2009, 69, 777-788.	0.6	121
78	Measurement of erythrocyte aggregation in a microchip stirring system by light transmission. Clinical Hemorheology and Microcirculation, 2009, 41, 197-207.	0.9	51
79	Comparison of three commercially available ektacytometers with different shearing geometries. Biorheology, 2009, 46, 251-264.	1.2	74
80	Changes in erythrocyte aggregation and deformability in diabetes mellitus: a brief review. Indian Journal of Experimental Biology, 2009, 47, 7-15.	0.5	43
81	Susceptibility of oxidative stress on red blood cells exposed to gamma rays: Hemorheological evaluation. Clinical Hemorheology and Microcirculation, 2008, 40, 315-324.	0.9	24
82	Rheological characteristics of erythrocytes incubated in glucose media. Clinical Hemorheology and Microcirculation, 2008, 38, 153-61.	0.9	21
83	Susceptibility of oxidative stress on red blood cells exposed to gamma rays: hemorheological evaluation. Clinical Hemorheology and Microcirculation, 2008, 40, 315-24.	0.9	8
84	Erythrocyte deformability and its variation in diabetes mellitus. Indian Journal of Experimental Biology, 2007, 45, 121-8.	0.5	43
85	Progressive impairment of erythrocyte deformability as indicator of microangiopathy in type 2 diabetes mellitus. Clinical Hemorheology and Microcirculation, 2007, 36, 253-61.	0.9	47
86	Validation and application of a microfluidic ektacytometer (RheoScan-D) in measuring erythrocyte deformability. Clinical Hemorheology and Microcirculation, 2007, 37, 319-28.	0.9	59
87	Early diagnosis of diabetic vascular complications: impairment of red blood cell deformability. , 2006, , .		0
88	Slit-flow ektacytometry: Laser diffraction in a slit rheometer. Cytometry Part B - Clinical Cytometry, 2005, 65B, 6-13.	0.7	48
89	Rapid cell-deformability sensing system based on slit-flow laser diffractometry with decreasing pressure differential. Biosensors and Bioelectronics, 2005, 20, 1291-1297.	5.3	14
90	Deformability of red blood cells: A determinant of blood viscosity. Journal of Mechanical Science and Technology, 2005, 19, 216-223.	0.7	19

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91	Optical detection of red blood cell aggregation in a disposable microfluidic channel. Journal of Mechanical Science and Technology, 2005, 19, 887-893.	0.7	0
92	Hemodynamic analysis of coronary artery microcirculation using a pigâ€™s morphometric data. Journal of Mechanical Science and Technology, 2005, 19, 1313-1320.	0.7	0
93	Disposable biosensor for measuring red blood cell deformability using laser-diffraction technique. , 2005, , .		1
94	Erythrocyte Deformability and its Hemorheological Consideration. Japanese Journal of Applied Physics, 2004, 43, 8349-8353.	0.8	1
95	Laser-diffraction slit rheometer to measure red blood cell deformability. Review of Scientific Instruments, 2004, 75, 559-561.	0.6	12
96	Comparison of shear-thinning blood flow characteristics between longitudinal and transverse vibration. Journal of Mechanical Science and Technology, 2004, 18, 2258-2264.	0.4	1
97	Measurements of blood viscosity using a pressure-scanning slit viscometer. Journal of Mechanical Science and Technology, 2004, 18, 1036-1041.	0.4	7
98	An efficient shape optimization method based on FEM and B-spline curves and shaping a torque converter clutch disk. Finite Elements in Analysis and Design, 2004, 40, 1803-1815.	1.7	13
99	Blood flow resistance with vibration and its effect on blood cell migration. Clinical Hemorheology and Microcirculation, 2004, 30, 353-8.	0.9	2
100	Measurement of blood viscosity using a pressure-scanning capillary viscometer. Clinical Hemorheology and Microcirculation, 2004, 30, 467-70.	0.9	9
101	Characteristics of Blood Flow Resistance Under Transverse Vibration: Red Blood Cell Suspension in Dextran-40. Annals of Biomedical Engineering, 2003, 31, 1077-1083.	1.3	12
102	The effect of vibration on the hemorheological characteristics of non-aggregated blood. Journal of Mechanical Science and Technology, 2003, 17, 1104-1110.	0.4	1
103	Viscosity measurement of non-Newtonian fluid foods with a mass-detecting capillary viscometer. Journal of Food Engineering, 2003, 58, 5-10.	2.7	19
104	Characteristics of Shear-Thinning Fluid Flow under Traversal Vibration. Japanese Journal of Applied Physics, 2003, 42, 1363-1367.	0.8	1
105	Blood viscosity measurements using a pressure-scanning capillary viscometer. Journal of Mechanical Science and Technology, 2002, 16, 1719-1724.	0.4	17
106	Continuous viscosity measurement of non-Newtonian fluids over a range of shear rates using a mass-detecting capillary viscometer. Journal of Mechanical Science and Technology, 2002, 16, 255-261.	0.4	7
107	Viscosity and conductivity measurements for dilute dispersions of rodlike paraffin particles in silicone oil. International Communications in Heat and Mass Transfer, 2002, 29, 203-211.	2.9	4
108	THE EFFECTS OF TRAVERSLA VIBRATION ON THE SUSPENSION VISCOSITY. International Communications in Heat and Mass Transfer, 2002, 29, 1069-1077.	2.9	5

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109	Measurement of blood viscosity using mass-detecting sensor. Biosensors and Bioelectronics, 2002, 17, 383-388.	5.3	30
110	Computational study of fouling deposit due to surface-coated particles in coal-fired power utility boilers. Fuel, 2002, 81, 2001-2008.	3.4	53
111	A new mass-detecting capillary viscometer. Review of Scientific Instruments, 2001, 72, 3127-3128.	0.6	10
112	Thermal conductivity of suspensions in shear flow fields. International Journal of Heat and Mass Transfer, 2000, 43, 4275-4284.	2.5	48
113	Heat transfer behavior of temperature -dependent viscoelastic non-Newtonian fluid with buoyancy effect in 2:1 rectangular duct. International Communications in Heat and Mass Transfer, 2000, 27, 159-168.	2.9	7
114	Heat transfer behavior of a temperature-dependent non-Newtonian fluid with Reinerâ€“Rivlin model in a 2 : 1 rectangular duct. International Journal of Heat and Mass Transfer, 1999, 42, 2935-2942.	2.5	16
115	Flow distribution in manifolds for low Reynolds number flow. Journal of Mechanical Science and Technology, 1998, 12, 87-95.	0.4	13
116	The effect of thermal degradation on the non-newtonian viscosity of an aqueous polyacrylamide solution. Journal of Mechanical Science and Technology, 1998, 12, 267-273.	0.4	8
117	The effect of the shear rate-dependent thermal conductivity of non-newtonian fluids on the heat transfer in a pipe flow. International Communications in Heat and Mass Transfer, 1996, 23, 665-678.	2.9	16
118	Forced convection behavior of a dielectric fluid (FC-77) in a 2:1 rectangular duct. International Communications in Heat and Mass Transfer, 1996, 23, 731-744.	2.9	4
119	Laminar heat transfer in a rectangular duct with a non-Newtonian fluid with temperature-dependent viscosity. International Journal of Heat and Mass Transfer, 1994, 37, 19-30.	2.5	33
120	Numerical study of laminar heat transfer with temperature dependent fluid viscosity in a 2:1 rectangular duct. International Journal of Heat and Mass Transfer, 1993, 36, 4365-4373.	2.5	37
121	Temperature effect on the non-Newtonian viscosity of an aqueous polyacrylamide solution. International Communications in Heat and Mass Transfer, 1993, 20, 831-844.	2.9	23
122	The effect of area ratio on the flow distribution in liquid cooling module manifolds for electronic packaging. International Communications in Heat and Mass Transfer, 1993, 20, 221-234.	2.9	66
123	The effects of the Reynolds number and width ratio on the flow distribution in manifolds of liquid cooling modules for electronic packaging. International Communications in Heat and Mass Transfer, 1993, 20, 607-617.	2.9	33