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	New guidelines for hemorheological laboratory techniques. Clinical Hemorheology and Microcirculation, 2009, 42, 75-97.	0.9	390
2	Separation of platelets from whole blood using standing surface acoustic waves in a microchannel. Lab on A Chip, 2011, 11, 3361.	3.1	162
3	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
4	In vitro 3D collective sprouting angiogenesis under orchestrated ANG-1 and VEGF gradients. Lab on A Chip, 2011, 11, 2175.	3.1	142
5	Advances in the measurement of red blood cell deformability: A brief review. Journal of Cellular Biotechnology, 2015, 1, 63-79.	0.1	131
6	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
7	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
8	Altering the coffee-ring effect by adding a surfactant-like viscous polymer solution. Scientific Reports, 2017, 7, 500.	1.6	100
9	Toxic effects of silver nanoparticles and nanowires on erythrocyte rheology. Food and Chemical Toxicology, 2014, 67, 80-86.	1.8	92
10	Magnetic Separation of Malaria-Infected Red Blood Cells in Various Developmental Stages. Analytical Chemistry, 2013, 85, 7316-7323.	3.2	89
11	Size-dependent microparticles separation through standing surface acoustic waves. Microfluidics and Nanofluidics, 2011, 11, 317-326.	1.0	83
12	Comparison of three commercially available ektacytometers with different shearing geometries. Biorheology, 2009, 46, 251-264.	1.2	74
13	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
14	Validation and application of a microfluidic ektacytometer (RheoScan-D) in measuring erythrocyte deformability. Clinical Hemorheology and Microcirculation, 2007, 37, 319-28.	0.9	59
15	Rapid molecular diagnosis of infectious viruses in microfluidics using DNA hydrogel formation. Biosensors and Bioelectronics, 2018, 108, 9-13.	5.3	58
16	Computational study of fouling deposit due to surface-coated particles in coal-fired power utility boilers. Fuel, 2002, 81, 2001-2008.	3.4	53
17	Measurement of erythrocyte aggregation in a microchip stirring system by light transmission. Clinical Hemorheology and Microcirculation, 2009, 41, 197-207.	0.9	51
18	Lateral migration of particles suspended in viscoelastic fluids in a microchannel flow. Microfluidics and Nanofluidics, 2014, 17, 683-692.	1.0	51

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19	A rapid diagnosis of SARS-CoV-2 using DNA hydrogel formation on microfluidic pores. Biosensors and Bioelectronics, 2021, 177, 113005.	5.3	51
20	Thermal conductivity of suspensions in shear flow fields. International Journal of Heat and Mass Transfer, 2000, 43, 4275-4284.	2.5	48
21	Slit-flow ektacytometry: Laser diffraction in a slit rheometer. Cytometry Part B - Clinical Cytometry, 2005, 65B, 6-13.	0.7	48
22	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
23	Comparison of three instruments for measuring red blood cell aggregation. Clinical Hemorheology and Microcirculation, 2009, 43, 283-298.	0.9	46
24	Temperature-dependent threshold shear stress of red blood cell aggregation. Journal of Biomechanics, 2010, 43, 546-550.	0.9	45
25	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
26	Erythrocyte deformability and its variation in diabetes mellitus. Indian Journal of Experimental Biology, 2007, 45, 121-8.	0.5	43
27	Changes in erythrocyte aggregation and deformability in diabetes mellitus: a brief review. Indian Journal of Experimental Biology, 2009, 47, 7-15.	0.5	43
28	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
29	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
30	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
31	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
32	A simple method for activating the platelets used in microfluidic platelet aggregation tests: Stirring-induced platelet activation. Biomicrofluidics, 2016, 10, 064118.	1.2	33
33	Precision cell-free DNA extraction for liquid biopsy by integrated microfluidics. Npj Precision Oncology, 2020, 4, 3.	2.3	32
34	Measurement of blood viscosity using mass-detecting sensor. Biosensors and Bioelectronics, 2002, 17, 383-388.	5.3	30
35	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
36	ExoCAS-2: Rapid and Pure Isolation of Exosomes by Anionic Exchange Using Magnetic Beads. Biomedicines, 2021, 9, 28.	1.4	26

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37	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
38	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
39	New fundamental and applied mechanisms in exercise hemorheology. Clinical Hemorheology and Microcirculation, 2010, 45, 131-141.	0.9	23
40	Disaggregating shear stress: The roles of cell deformability and fibrinogen concentration. Clinical Hemorheology and Microcirculation, 2013, 55, 231-240.	0.9	23
41	Migration distance-based platelet function analysis in a microfluidic system. Biomicrofluidics, 2013, 7, 064101.	1.2	23
42	Centrifugation-free extraction of circulating nucleic acids using immiscible liquid under vacuum pressure. Scientific Reports, 2018, 8, 5467.	1.6	23
43	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
44	Rapid and Efficient Isolation of Exosomes by Clustering and Scattering. Journal of Clinical Medicine, 2020, 9, 650.	1.0	21
45	Rheological characteristics of erythrocytes incubated in glucose media. Clinical Hemorheology and Microcirculation, 2008, 38, 153-61.	0.9	21
46	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
47	The role of critical shear stress on acute coronary syndrome. Clinical Hemorheology and Microcirculation, 2013, 55, 101-109.	0.9	20
48	Potential Diagnostic Hemorheological Indexes for Chronic Kidney Disease in Patients With Type 2 Diabetes. Frontiers in Physiology, 2019, 10, 1062.	1.3	20
49	Viscosity measurement of non-Newtonian fluid foods with a mass-detecting capillary viscometer. Journal of Food Engineering, 2003, 58, 5-10.	2.7	19
50	Deformability of red blood cells: A determinant of blood viscosity. Journal of Mechanical Science and Technology, 2005, 19, 216-223.	0.7	19
51	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
52	Fully Automated Field-Deployable Bioaerosol Monitoring System Using Carbon Nanotube-Based Biosensors. Environmental Science & Technology, 2016, 50, 5163-5171.	4.6	18
53	Blood viscosity measurements using a pressure-scanning capillary viscometer. Journal of Mechanical Science and Technology, 2002, 16, 1719-1724.	0.4	17
54	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

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55	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
56	Manipulation of microparticles using surface acoustic wave in microfluidic systems: a brief review. Korea Australia Rheology Journal, 2011, 23, 255-267.	0.7	16
57	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
58	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
59	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
60	Recent advances in microfluidic platelet function assays: Moving microfluidics into clinical applications. Clinical Hemorheology and Microcirculation, 2019, 71, 249-266.	0.9	14
61	Flow distribution in manifolds for low Reynolds number flow. Journal of Mechanical Science and Technology, 1998, 12, 87-95.	0.4	13
62	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
63	Analysis of Surface Plasmon Resonance Curves with a Novel Sigmoid-Asymmetric Fitting Algorithm. Sensors, 2015, 15, 25385-25398.	2.1	13
64	Use of RBC deformability index as an early marker of diabetic nephropathy. Clinical Hemorheology and Microcirculation, 2019, 72, 75-84.	0.9	13
65	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
66	Laser-diffraction slit rheometer to measure red blood cell deformability. Review of Scientific Instruments, 2004, 75, 559-561.	0.6	12
67	Haemocompatibility evaluation of silica nanomaterials using hemorheological measurements. Clinical Hemorheology and Microcirculation, 2016, 62, 99-107.	0.9	12
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	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
71	A new mass-detecting capillary viscometer. Review of Scientific Instruments, 2001, 72, 3127-3128.	0.6	10
72	Miniaturized surface plasmon resonance biosensor with vacuum-driven hydrodynamic focusing. Sensors and Actuators B: Chemical, 2018, 254, 64-71.	4.0	10

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73	Platelet thrombus formation by upstream activation and downstream adhesion of platelets in a microfluidic system. Biosensors and Bioelectronics, 2020, 165, 112395.	5.3	10
74	Influence of shear stress on erythrocyte aggregation. Clinical Hemorheology and Microcirculation, 2016, 62, 165-171.	0.9	9
75	Measurement of blood viscosity using a pressure-scanning capillary viscometer. Clinical Hemorheology and Microcirculation, 2004, 30, 467-70.	0.9	9
76	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
77	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
78	Scalable evaluation of platelet aggregation by the degree of blood migration. Applied Physics Letters, 2013, 103, .	1.5	8
79	Blood characteristics effect on pulse wave velocity. Clinical Hemorheology and Microcirculation, 2013, 55, 193-203.	0.9	8
80	Osmotic deformability of erythrocytes at various shear stresses. Clinical Hemorheology and Microcirculation, 2015, 59, 211-218.	0.9	8
81	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
82	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
83	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
84	Measurements of blood viscosity using a pressure-scanning slit viscometer. Journal of Mechanical Science and Technology, 2004, 18, 1036-1041.	0.4	7
85	Ultrasensitive Detection of Single-Walled Carbon Nanotubes Using Surface Plasmon Resonance. Analytical Chemistry, 2016, 88, 968-973.	3.2	7
86	Rheological alteration of erythrocytes exposed to carbon nanotubes. Clinical Hemorheology and Microcirculation, 2017, 65, 49-56.	0.9	7
87	Hemorheological changes caused by lead exposure. Clinical Hemorheology and Microcirculation, 2013, 55, 341-348.	0.9	6
88	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
89	Yield shear stress and disaggregating shear stress of human blood. Korea Australia Rheology Journal, 2014, 26, 191-198.	0.7	6
90	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

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91	THE EFFECTS OF TRAVERSLA VIBRATION ON THE SUSPENSION VISCOSITY. International Communications in Heat and Mass Transfer, 2002, 29, 1069-1077.	2.9	5
92	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
93	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
94	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
95	Study of erythrocyte aggregation at pulsatile flow conditions with backscattering analysis. Clinical Hemorheology and Microcirculation, 2012, 50, 257-266.	0.9	4
96	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
97	Effect of shear-induced platelet activation on red blood cell aggregation. Clinical Hemorheology and Microcirculation, 2017, 66, 97-104.	0.9	4
98	Dynamical Clustering and Band Formation of Particles in a Marangoni Vortexing Droplet. Langmuir, 2019, 35, 8977-8983.	1.6	4
99	Micropore device for identification of 4-bit hydrogel barcode. Sensors and Actuators B: Chemical, 2020, 307, 127622.	4.0	4
100	Measurement of the temperature-dependent threshold shear-stress of red blood cell aggregation. Review of Scientific Instruments, 2009, 80, 096101.	0.6	3
101	Occupational and Environmental Health Effects of Nanomaterials. BioMed Research International, 2015, 2015, 1-2.	0.9	3
102	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
103	Measurement of RBC agglutination with microscopic cell image analysis in a microchannel chip. Clinical Hemorheology and Microcirculation, 2014, 56, 67-74.	0.9	2
104	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
105	Asymmetric fluttering ferromagnetic bar-driven inertial micropump in microfluidics. Biomicrofluidics, 2018, 12, 014115.	1.2	2
106	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
107	Blood flow resistance with vibration and its effect on blood cell migration. Clinical Hemorheology and Microcirculation, 2004, 30, 353-8.	0.9	2
108	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

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109	Characteristics of Shear-Thinning Fluid Flow under Traversal Vibration. Japanese Journal of Applied Physics, 2003, 42, 1363-1367.	0.8	1
110	Erythrocyte Deformability and its Hemorheological Consideration. Japanese Journal of Applied Physics, 2004, 43, 8349-8353.	0.8	1
111	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
112	Disposable biosensor for measuring red blood cell deformability using laser-diffraction technique. , 2005, , .		1
113	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
114	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
115	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
116	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
117	Early diagnosis of diabetic vascular complications: impairment of red blood cell deformability. , 2006, , .		0
118	Well-based microfluidic chip for monitoring non-contacting cell-to-cell interactions through microchannel. , 2013, , .		0
119	Preface. Biorheology, 2015, 52, 1-3.	1.2	0
120	Unsolved Favorable Effect of Statin on Blood Viscosity. Korean Circulation Journal, 2016, 46, 145.	0.7	0
121	Study of erythrocyte membrane fluctuation using light scattering analysis. , 2016, , .		0
122	Total microfluidic platform strategy for liquid biopsy. Journal of Cellular Biotechnology, 2021, 6, 113-137.	0.1	0
123	Red blood cells interaction mediated by dextran macromolecules: in vitro study using diffuse light scattering technique and optical tweezers. , 2019, , .		0