Massimiliano Maria Villone

List of Publications by Year
in descending order

56 papers	986 citations	516710 16 h-index	434195 31 g-index
56 all docs	56 docs citations	56 times ranked	941 citing authors

#	Article	IF	Citations
1	Continuous 3D Printing of Hierarchically Structured Microfoamed Objects. Advanced Engineering Materials, 2022, 24, 2101226.	3.5	15
2	An Experimental and Numerical Investigation on Bubble Growth in Polymeric Foams. Entropy, 2022, 24, 183.	2.2	2
3	Rheo-Engineered Microfluidics @ UNINA. , 2022, 3, 100024.		0
4	Numerical simulations of cell sorting through inertial microfluidics. Physics of Fluids, 2022, 34, .	4.0	9
5	Tomographic flow cytometry as the key-enabling technology for label-free liquid biopsy. , 2021, , .		0
6	Label-free microfluidic platform for blood analysis based on phase-contrast imaging. , 2021, , .		0
7	Design of a microfluidic device for the phase-contrast tomography of flowing cells. , 2021, , .		0
8	Investigation of plant cells intracellular dynamics by digital holography. , 2021, , .		0
9	Axisymmetric bare freestanding films of highly viscous liquids: Preparation and real-time investigation of capillary leveling. Journal of Colloid and Interface Science, 2021, 596, 493-499.	9.4	6
10	Numerical simulations of small amplitude oscillatory shear flow of suspensions of rigid particles in non-Newtonian liquids at finite inertia. Journal of Rheology, 2021, 65, 821-835.	2.6	0
11	Dehydration of plant cells shoves nuclei rotation allowing for 3D phase-contrast tomography. Light: Science and Applications, 2021, 10, 187.	16.6	21
12	Deep learning-based non-intrusive detection of instabilities in formulated liquids. , 2021, , .		2
13	Induced dehydration as a method to enhance phase-contrast observation of plant cells intracellular dynamics. , 2021, , .		0
14	Bio-Lightweight Structures by 3D Foam Printing. , 2021, , .		9
15	Perspectives on liquid biopsy for labelâ€free detection of â€œcirculating tumor cellsâ€•through intelligent labâ€onâ€chips. View, 2020, 1, 20200034.	5.3	69
16	Rotating tensiometer for the measurement of the elastic modulus of deformable particles. Physical Review Fluids, 2020, 5, .	2.5	3
17	Assembling and rotating erythrocyte aggregates by acoustofluidic pressure enabling full phase-contrast tomography. Lab on A Chip, 2019, 19, 3123-3132.	6.0	14
18	Numerical simulations of oscillatory shear flow of particle suspensions at finite inertia. Rheologica Acta, 2019, 58, 741-753.	2.4	2

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19	Microfluidic engineering for continuous in-flow cyto-tomography. EPJ Web of Conferences, 2019, 215, 10003.	0.3	0
20	Design Of An Optofluidic Device For The Measurement Of The Elastic Modulus Of Deformable Particles. EPJ Web of Conferences, 2019, 215, 14003.	0.3	0
21	Design of a microfluidic device for the measurement of the elastic modulus of deformable particles. Soft Matter, 2019, 15, 880-889.	2.7	14
22	Numerical simulations of viscoelastic film stretching and retraction. Journal of Non-Newtonian Fluid Mechanics, 2019, 266, 118-126.	2.4	5
23	Lateral migration of deformable particles in microfluidic channel flow of Newtonian and viscoelastic media: a computational study. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	14
24	Dynamics, rheology, and applications of elastic deformable particle suspensions: a review. Rheologica Acta, 2019, 58, 109-130.	2.4	41
25	Quantitative imaging of the complexity in liquid bubblesâ€™ evolution reveals the dynamics of film retraction. Light: Science and Applications, 2019, 8, 20.	16.6	26
26	Dissolution of concentrated surfactant solutions: from microscopy imaging to rheological measurements through numerical simulations. Soft Matter, 2019, 15, 8352-8360.	2.7	6
27	3D imaging in microfluidics: new holographic methods and devices. , 2019, , .		2
28	Recent Advancements and Perspective About Digital Holography: A Super-Tool in Biomedical and Bioengineering Fields. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 235-241.	0.5	1
29	Methods for holographic 3D tracking and rotating angle recovery in tomographic flow cytometry. , 2019, , .		0
30	Label-free imaging of cancer cells by in-flow tomography. , 2019, , .		0
31	Phase contrast imaging in acoustophoresis platforms for biological applications. , 2019, , .		0
32	Holographic imaging of erythrocytes in acoustofluidic platforms. , 2019, , .		0
33	Design of an optofluidic device for the measurement of the elastic modulus of deformable particles. , 2019, , .		0
34	Holographic imaging for 3D cells morphology in microfluidic flow. , 2019, , .		0
35	Elasticity in Bubble Rupture. Langmuir, 2018, 34, 5646-5654.	3.5	24
36	Full-angle tomographic phase microscopy of flowing quasi-spherical cells. Lab on A Chip, 2018, 18, 126-131.	6.0	83

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37	Bubble impingement in the presence of a solid particle: A computational study. Computers and Fluids, 2018, 170, 349-356.	2.5	2
38	Tomographic phase microscopy for label-free imaging in biomedicine. , 2018, , .		0
39	New perspective for liquid biopsy: in flow-tomography of circulating tumor cells. , 2018, , .		0
40	Tomographic flow cytometry of circulating human breast adenocarcinoma cells. , 2018, , .		1
41	Modeling and simulation of viscoelastic film retraction. Journal of Non-Newtonian Fluid Mechanics, 2017, 249, 26-35.	2.4	10
42	Soft Matter in Flow and High Performance Computing. , 2017, , 291-305.		0
43	Numerical design of a T-shaped microfluidic device for deformability-based separation of elastic capsules and soft beads. Physical Review E, 2017, 96, 053103.	2.1	10
44	Numerical simulations of deformable particle lateral migration in tube flow of Newtonian and viscoelastic media. Journal of Non-Newtonian Fluid Mechanics, 2016, 234, 105-113.	2.4	36
45	Numerical simulations of the separation of elastic particles in a T-shaped bifurcation. Journal of Non-Newtonian Fluid Mechanics, 2016, 233, 75-84.	2.4	6
46	Validated modeling of bubble growth, impingement and retraction to predict cell-opening in thermoplastic foaming. Chemical Engineering Journal, 2016, 287, 492-502.	12.7	28
47	Dynamics of prolate spheroidal elastic particles in confined shear flow. Physical Review E, 2015, 92, 062303.	2.1	17
48	Particle manipulation through polymer solutions in microfluidic processes. AIP Conference Proceedings, 2015, , .	0.4	0
49	Magnetophoresis â€˜meetsâ€™ viscoelasticity: deterministic separation of magnetic particles in a modular microfluidic device. Lab on A Chip, 2015, 15, 1912-1922.	6.0	56
50	Simulations of deformable systems in fluids under shear flow using an arbitrary Lagrangian Eulerian technique. Computers and Fluids, 2014, 90, 88-100.	2.5	58
51	Numerical simulations of linear viscoelasticity of monodisperse emulsions of Newtonian drops in a Newtonian fluid from dilute to concentrated regime. Rheologica Acta, 2014, 53, 401-416.	2.4	4
52	Simulations of an elastic particle in Newtonian and viscoelastic fluids subjected to confined shear flow. Journal of Non-Newtonian Fluid Mechanics, 2014, 210, 47-55.	2.4	27
53	Particle motion in square channel flow of a viscoelastic liquid: Migration vs. secondary flows. Journal of Non-Newtonian Fluid Mechanics, 2013, 195, 1-8.	2.4	96
54	Single line particle focusing induced by viscoelasticity of the suspending liquid: theory, experiments and simulations to design a micropipe flow-focuser. Lab on A Chip, 2012, 12, 1638.	6.0	182

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55	Simulations of viscoelasticity-induced focusing of particles in pressure-driven micro-slit flow. Journal of Non-Newtonian Fluid Mechanics, 2011, 166, 1396-1405.	2.4	54
56	Numerical simulations of particle migration in a viscoelastic fluid subjected to Poiseuille flow. Computers and Fluids, 2011, 42, 82-91.	2.5	31