Simon A Rogers

List of Publications by Year
in descending order

71 papers	2,471 citations	201385 27 h-index	214527 47 g-index
74 all docs	74 docs citations	74 times ranked	1840 citing authors

#	Article	IF	Citations
1	A sequence of physical processes determined and quantified in LAOS: Application to a yield stress fluid. Journal of Rheology, 2011, 55, 435-458.	1.3	193
2	A sequence of physical processes determined and quantified in large-amplitude oscillatory shear (LAOS): Application to theoretical nonlinear models. Journal of Rheology, 2012, 56, 1-25.	1.3	153
3	Viscosity of Ring Polymer Melts. ACS Macro Letters, 2013, 2, 874-878.	2.3	134
4	Rheology of branched wormlike micelles. Current Opinion in Colloid and Interface Science, 2014, 19, 530-535.	3.4	115
5	Elucidating the Gâ€³ overshoot in soft materials with a yield transition via a time-resolved experimental strain decomposition. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 21945-21952.	3.3	112
6	A sequence of physical processes determined and quantified in LAOS: An instantaneous local 2D/3D approach. Journal of Rheology, 2012, 56, 1129-1151.	1.3	111
7	Aging, Yielding, and Shear Banding in Soft Colloidal Glasses. Physical Review Letters, 2008, 100, 128304.	2.9	102
8	Dynamic shear rheology of a thixotropic suspension: Comparison of an improved structure-based model with large amplitude oscillatory shear experiments. Journal of Rheology, 2016, 60, 433-450.	1.3	99
9	In search of physical meaning: defining transient parameters for nonlinear viscoelasticity. Rheologica Acta, 2017, 56, 501-525.	1.1	83
10	Dilute solution structure of bottlebrush polymers. Soft Matter, 2019, 15, 2928-2941.	1.2	68
11	Time-resolved dynamics of the yielding transition in soft materials. Journal of Non-Newtonian Fluid Mechanics, 2019, 264, 117-134.	1.0	64
12	Time-dependent rheology of colloidal star glasses. Journal of Rheology, 2010, 54, 133-158.	1.3	61
13	The molecular origin of stress generation in worm-like micelles, using a rheo-SANS LAOS approach. Soft Matter, 2012, 8, 7831.	1.2	54
14	The rheology and microstructure of branched micelles under shear. Journal of Rheology, 2015, 59, 1299-1328.	1.3	53
15	Unification of the Rheological Physics of Yield Stress Fluids. Physical Review Letters, 2021, 126, 218002.	2.9	49
16	The transient behavior of soft glassy materials far from equilibrium. Journal of Rheology, 2018, 62, 869-888.	1.3	39
17	Structure-Property Relationships via Recovery Rheology in Viscoelastic Materials. Physical Review Letters, 2019, 122, 248003.	2.9	37
18	Ionic Hydrogels with Biomimetic 4Dâ€Printed Mechanical Gradients: Models for Softâ€Bodied Aquatic Organisms. Advanced Functional Materials, 2019, 29, 1806723.	7.8	37

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19	A sequence of physical processes quantified in LAOS by continuous local measures. Korea Australia Rheology Journal, 2017, 29, 269-279.	0.7	36
20	Oscillatory yielding of a colloidal star glass. Journal of Rheology, 2011, 55, 733-752.	1.3	35
21	Rotational Diffusion of Spherical Colloids Close to a Wall. Physical Review Letters, 2012, 109, 098305.	2.9	33
22	Large amplitude oscillatory shear: Simple to describe, hard to interpret. Physics Today, 2018, 71, 34-40.	0.3	33
23	Rheological Analysis of the Gelation Kinetics of an Enzyme Cross-linked PEG Hydrogel. Biomacromolecules, 2019, 20, 2198-2206.	2.6	32
24	Examining the validity of strain-rate frequency superposition when measuring the linear viscoelastic properties of soft materials. Journal of Rheology, 2010, 54, 187-195.	1.3	31
25	Translational and rotational near-wall diffusion of spherical colloids studied by evanescent wave scattering. Soft Matter, 2014, 10, 4312.	1.2	31
26	Charge Transport in Conducting Polymers: Polyacetylene Nanofibres. Molecular Crystals and Liquid Crystals, 2004, 415, 115-124.	0.4	30
27	Rheological manifestation of microstructural change of colloidal gel under oscillatory shear flow. Physics of Fluids, 2020, 32, .	1.6	29
28	Dynamic shear rheology and structure kinetics modeling of a thixotropic carbon black suspension. Rheologica Acta, 2017, 56, 811-824.	1.1	28
29	Nonlinear Behavior of Nematic Platelet Dispersions in Shear Flow. Physical Review Letters, 2012, 109, 246001.	2.9	27
30	The unification of disparate rheological measures in oscillatory shearing. Physics of Fluids, 2019, 31, .	1.6	27
31	Yielding and recovery of conductive pastes for screen printing. Rheologica Acta, 2019, 58, 361-382.	1.1	27
32	Large amplitude oscillatory shear flow: Microstructural assessment of polymeric systems. Progress in Polymer Science, 2022, 132, 101580.	11.8	27
33	Materials Design of Highly Branched Bottlebrush Polymers at the Intersection of Modeling, Synthesis, Processing, and Characterization. Chemistry of Materials, 2022, 34, 1990-2024.	3.2	26
34	Unveiling Temporal Nonlinear Structureâ€“Rheology Relationships under Dynamic Shearing. Polymers, 2019, 11, 1189.	2.0	25
35	Unlocking Chain Exchange in Highly Amphiphilic Block Polymer Micellar Systems: Influence of Agitation. ACS Macro Letters, 2014, 3, 1106-1111.	2.3	24
36	Understanding steady and dynamic shear banding in a model wormlike micellar solution. Journal of Rheology, 2016, 60, 1001-1017.	1.3	23

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37	An optimized protocol for the analysis of time-resolved elastic scattering experiments. Soft Matter, 2016, 12, 2301-2308.	1.2	23
38	Challenges of Size-Exclusion Chromatography for the Analysis of Bottlebrush Polymers. Macromolecules, 2020, 53, 8610-8620.	2.2	23
39	Instantaneous dimensionless numbers for transient nonlinear rheology. Rheologica Acta, 2019, 58, 539-556.	1.1	22
40	3Dâ€Printed Hydrogel Composites for Predictive Temporal (4D) Cellular Organizations and Patterned Biogenic Mineralization. Advanced Healthcare Materials, 2019, 8, e1800788.	3.9	21
41	Comparison of Sequence of Physical Processes (SPP) and Fourier Transform Coupled with Chebyshev Polynomials (FTC) methods to Interpret Large Amplitude Oscillatory Shear (LAOS) Response of Viscoelastic Doughs and Viscous Pectin Solution. Food Hydrocolloids, 2022, 128, 107558.	5.6	21
42	Color, structure, and rheology of a diblock bottlebrush copolymer solution. Soft Matter, 2020, 16, 4919-4931.	1.2	19
43	The nonlinear rheology of complex yield stress foods. Physics of Fluids, 2022, 34, .	1.6	19
44	Diatom Microbubbler for Active Biofilm Removal in Confined Spaces. ACS Applied Materials & Interfaces, 2018, 10, 35685-35692.	4.0	18
45	Optimal conditions for pre-shearing thixotropic or aging soft materials. Rheologica Acta, 2020, 59, 921-934.	1.1	16
46	The role of elasticity in thixotropy: Transient elastic stress during stepwise reduction in shear rate. Physics of Fluids, 2021, 33, .	1.6	16
47	Digital rheometer twins: Learning the hidden rheology of complex fluids through rheology-informed graph neural networks. Proceedings of the National Academy of Sciences of the United States of America, 2022, 119, e2202234119.	3.3	16
48	Strain shifts under stress-controlled oscillatory shearing in theoretical, experimental, and structural perspectives: Application to probing zero-shear viscosity. Journal of Rheology, 2019, 63, 863-881.	1.3	14
49	Oldroyd's model and the foundation of modern rheology of yield stress fluids. Journal of Non-Newtonian Fluid Mechanics, 2021, 295, 104604.	1.0	14
50	Microscopic dynamics of stress relaxation in a nanocolloidal soft glass. Physical Review Materials, 2020, 4, .	0.9	12
51	Thermopower and resistivity of carbon nanotube networks and organic conducting polymers. Current Applied Physics, 2004, 4, 407-410.	1.1	11
52	Revisiting the basis of transient rheological material functions: Insights from recoverable strain measurements. Journal of Rheology, 2021, 65, 129-144.	1.3	11
53	Frieze group analysis of asymmetric response to large-amplitude oscillatory shear. Journal of Rheology, 2010, 54, 859-880.	1.3	10
54	Self-locomotive, antimicrobial microrobot (SLAM) swarm for enhanced biofilm elimination. Biomaterials, 2022, 287, 121610.	5.7	10

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55	Time-dependent NMR-velocimetry of a colloidal glass. Rheologica Acta, 2009, 48, 735-745.	1.1	9
56	Chargeâ€Induced Structural Changes of Confined Copolymer Hydrogels for Controlled Surface Morphology, Rheological Response, Adhesion, and Friction. Advanced Functional Materials, 2022, 32, .	7.8	9
57	A Printingâ€Centric Approach to the Electrostatic Modification of Polymer/Clay Composites for Use in 3D Directâ€Ink Writing. Advanced Materials Interfaces, 2018, 5, 1701579.	1.9	8
58	Studying Large Amplitude Oscillatory Shear Response of Soft Materials. Journal of Visualized Experiments, 2019, , .	0.2	7
59	Microscopic ergodicity breaking governs the emergence and evolution of elasticity in glass-forming nanoclay suspensions. Physical Review E, 2020, 102, 042619.	0.8	6
60	oreo: An R package for large amplitude oscillatory analysis. SoftwareX, 2021, 15, 100769.	1.2	6
61	Rheological Characteristics of Ionic Liquids under Nanoconfinement. Langmuir, 2022, 38, 2961-2971.	1.6	6
62	Mediating the Enhanced Interaction Between Hydroxyapatite and Agarose through Amorphous Calcium Carbonate. Crystal Growth and Design, 2020, 20, 6917-6929.	1.4	5
63	Anomalous structural response of nematic colloidal platelets subjected to large amplitude stress oscillations. Physics of Fluids, 2017, 29, 023102.	1.6	4
64	A small-scale study of nonlinear blood rheology shows rapid transient transitions. Rheologica Acta, 2020, 59, 687-705.	1.1	4
65	Probing nonlinear velocity profiles of shear-thinning, nematic platelet dispersions in Couette flow using x-ray photon correlation spectroscopy. Physics of Fluids, 2021, 33, 063102.	1.6	4
66	Re-entrant solid behavior of 3D-printable epoxy inks. Rheologica Acta, 2020, 59, 631-638.	1.1	3
67	Catalytic microgelators for decoupled control of gelation rate and rigidity of the biological gels. Journal of Controlled Release, 2020, 317, 166-180.	4.8	2
68	Recent Advances in Biofluid Mechanics and Bio- and Hemorheology Collating Recent Advances in Predicting Complex Behavior of Human Blood With Thixo-Elasto-Visco-Plastic Models and Sequence of Physical Process. Frontiers in Physics, 0, 10, .	1.0	2
69	Anomalous dynamic response of nematic platelets studied by spatially resolved rheo-small angle x-ray scattering in the 1â€“2 plane. Physics of Fluids, 2021, 33, .	1.6	1
70	Editorial: Viscoplastic fluids: From theory to application. Journal of Non-Newtonian Fluid Mechanics, 2019, 265, 140-142.	1.0	0
71	10.1063/5.0069458.1. , 2021, , .		0