

Nicolas J Alvarez

List of Publications by Year in descending order

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67
papers

2,286
citations

201674

27
h-index

214800

47
g-index

67
all docs

67
docs citations

67
times ranked

2280
citing authors

#	ARTICLE	IF	CITATIONS
1	Annealing post-drawn polycaprolactone (PCL) nanofibers optimizes crystallinity and molecular alignment and enhances mechanical properties and drug release profiles. <i>Materials Advances</i> , 2022, 3, 3303-3315.	5.4	5
2	The effect of network topology on material properties in vinyl-ester/styrene thermoset polymers using molecular dynamics simulations and time-temperature superposition. <i>Computational Materials Science</i> , 2022, 207, 111264.	3.0	1
3	A molecular parameter to scale the Gibbs free energies of adsorption and micellization for nonionic surfactants. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 609, 125622.	4.7	7
4	The effect of pyrolysis on the chemical, thermal and rheological properties of pitch. <i>Soft Matter</i> , 2021, 17, 8925-8936.	2.7	3
5	The impact of thermal history on the structure of glycyllalanyl-glycine ethanol/water gels. <i>Journal of Peptide Science</i> , 2021, 27, e3305.	1.4	2
6	The effect of resin-rich layers on mechanical properties of 3D printed woven fiber-reinforced composites. <i>Composites Part A: Applied Science and Manufacturing</i> , 2021, 144, 106339.	7.6	19
7	Concentration Dependence of a Hydrogel Phase Formed by the Deprotonation of the Imidazole Side Chain of Glycylhistidyl-glycine. <i>Langmuir</i> , 2021, 37, 6935-6946.	3.5	3
8	Short Peptides as Tunable, Switchable, and Strong Gelators. <i>Journal of Physical Chemistry B</i> , 2021, 125, 6760-6775.	2.6	12
9	Surface tensions at elevated pressure depend strongly on bulk phase saturation. <i>Journal of Colloid and Interface Science</i> , 2021, 594, 681-689.	9.4	9
10	A mechanism for improved talc pleurodesis via foam delivery. <i>Drug Delivery</i> , 2021, 28, 733-740.	5.7	1
11	Exploring the gel phase of cationic glycyllalanyl-glycine in ethanol/water. I. Rheology and microscopy studies. <i>Journal of Colloid and Interface Science</i> , 2020, 564, 499-509.	9.4	13
12	Characterizing long-chain branching in commercial HDPE samples via linear viscoelasticity and extensional rheology. <i>Rheologica Acta</i> , 2020, 59, 797-807.	2.4	15
13	Waste to high performance materials: Self-assembly of short carbon fiber polymer composites. <i>Applied Materials Today</i> , 2020, 20, 100786.	4.3	2
14	Correlating Processing Conditions to Short- and Long-Range Order in Coating and Drying Lithium-Ion Batteries. <i>ACS Applied Energy Materials</i> , 2020, 3, 11681-11689.	5.1	23
15	Formulation of a Model Resin System for Benchmarking Processing-Property Relationships in High-Performance Photo 3D Printing Applications. <i>Materials</i> , 2020, 13, 4109.	2.9	21
16	Exploring the gel phase of cationic glycyllalanyl-glycine in ethanol/water. II. Spectroscopic, kinetic and thermodynamic studies. <i>Journal of Colloid and Interface Science</i> , 2020, 573, 123-134.	9.4	9
17	The tripeptide GHG as an unexpected hydrogelator triggered by imidazole deprotonation. <i>Soft Matter</i> , 2020, 16, 4110-4114.	2.7	7
18	Dispersion and Stabilization of Alkylated 2D MXene in Nonpolar Solvents and Their Pseudocapacitive Behavior. <i>Cell Reports Physical Science</i> , 2020, 1, 100042.	5.6	43

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19	The efficacy of hydrogel foams in talc Pleurodesis. <i>Journal of Cardiothoracic Surgery</i> , 2020, 15, 58.	1.1	3
20	Direct measure of crystalline domain size, distribution, and orientation in polyethylene fibers. <i>Polymer</i> , 2020, 202, 122589.	3.8	7
21	The trade-off between processability and performance in commercial ionomers. <i>Rheologica Acta</i> , 2019, 58, 499-511.	2.4	9
22	An improved method of delivering a sclerosing agent for the treatment of malignant pleural effusion. <i>BMC Cancer</i> , 2019, 19, 614.	2.6	2
23	Nylon-6/Ti ₃ C ₂ T _z MXene Nanocomposites Synthesized by in Situ Ring Opening Polymerization of ϵ -Caprolactam and Their Water Transport Properties. <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 20425-20436.	8.0	52
24	Dynamics of Supramolecular Self-Healing Recovery in Extension. <i>Macromolecules</i> , 2019, 52, 2231-2242.	4.8	30
25	Exploring the thermal reversibility and tunability of a low molecular weight gelator using vibrational and electronic spectroscopy and rheology. <i>Soft Matter</i> , 2019, 15, 3418-3431.	2.7	10
26	Exploring the Tunability of the Aggregation and Gelation Process of the Tripeptide Gag. <i>Biophysical Journal</i> , 2019, 116, 349a.	0.5	0
27	O'Connor, Alvarez, and Robbins Reply. <i>Physical Review Letters</i> , 2019, 122, 059804.	7.8	1
28	Effect of Finite Extensibility on Nonlinear Extensional Rheology of Polymer Melts. <i>Macromolecules</i> , 2019, 52, 915-922.	4.8	32
29	Rheological Characteristics of 2D Titanium Carbide (MXene) Dispersions: A Guide for Processing MXenes. <i>ACS Nano</i> , 2018, 12, 2685-2694.	14.6	288
30	Short-range contacts govern the performance of industry-relevant battery cathodes. <i>Journal of Power Sources</i> , 2018, 387, 49-56.	7.8	43
31	The evolution of crystalline structures during gel spinning of ultra-high molecular weight polyethylene fibers. <i>Soft Matter</i> , 2018, 14, 8974-8985.	2.7	8
32	Grafting-through ROMP for gels with tailorable moduli and crosslink densities. <i>Polymer Chemistry</i> , 2018, 9, 5173-5178.	3.9	5
33	The peculiar elongational viscosity of concentrated solutions of monodisperse PMMA in oligomeric MMA. <i>Rheologica Acta</i> , 2018, 57, 591-601.	2.4	4
34	Three-Dimensional Visualization of Conductive Domains in Battery Electrodes with Contrast-Enhancing Nanoparticles. <i>ACS Applied Energy Materials</i> , 2018, 1, 4479-4484.	5.1	20
35	Accounting for optical errors in microtensiometry. <i>Journal of Colloid and Interface Science</i> , 2018, 526, 392-399.	9.4	3
36	Relating Chain Conformations to Extensional Stress in Entangled Polymer Melts. <i>Physical Review Letters</i> , 2018, 121, 047801.	7.8	55

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37	Exploring the Tunability of the Aggregation and Gelation Process of Tripeptides. <i>Biophysical Journal</i> , 2018, 114, 589a.	0.5	0
38	Direct observation of active material interactions in flowable electrodes using X-ray tomography. <i>Faraday Discussions</i> , 2017, 199, 511-524.	3.2	50
39	Nonlinear shear and uniaxial extensional rheology of polyether-ester-sulfonate copolymer ionomer melts. <i>Journal of Rheology</i> , 2017, 61, 1279-1289.	2.6	46
40	The Impotence of Non-Brownian Particles on the Gel Transition of Colloidal Suspensions. <i>Polymers</i> , 2017, 9, 461.	4.5	7
41	The interplay of aggregation, fibrillization and gelation of an unexpected low molecular weight gelator: glycylalanyl-glycine in ethanol/water. <i>Soft Matter</i> , 2016, 12, 6096-6110.	2.7	27
42	Oscillatory squeeze flow for the study of linear viscoelastic behavior. <i>Journal of Rheology</i> , 2016, 60, 407-418.	2.6	11
43	Linear Viscoelastic and Dielectric Relaxation Response of Unentangled UPy-Based Supramolecular Networks. <i>Macromolecules</i> , 2016, 49, 3899-3910.	4.8	62
44	Investigating the Formation of a Repulsive Hydrogel of a Cationic 16mer Peptide at Low Ionic Strength in Water by Vibrational Spectroscopy and Rheology. <i>Journal of Physical Chemistry B</i> , 2016, 120, 10079-10090.	2.6	9
45	Multiple Cracks Propagate Simultaneously in Polymer Liquids in Tension. <i>Physical Review Letters</i> , 2016, 117, 087801.	7.8	43
46	Dynamics of Star Polymers in Fast Extensional Flow and Stress Relaxation. <i>Macromolecules</i> , 2016, 49, 6694-6699.	4.8	36
47	Brittle fracture in associative polymers: the case of ionomer melts. <i>Soft Matter</i> , 2016, 12, 7606-7612.	2.7	34
48	Stress relaxation of bi-disperse polystyrene melts. <i>Rheologica Acta</i> , 2016, 55, 303-314.	2.4	19
49	A new look at extensional rheology of low-density polyethylene. <i>Rheologica Acta</i> , 2016, 55, 343-350.	2.4	50
50	Linear and Nonlinear Universality in the Rheology of Polymer Melts and Solutions. <i>Physical Review Letters</i> , 2015, 115, 078302.	7.8	62
51	Bridging the Gap between Polymer Melts and Solutions in Extensional Rheology. <i>Macromolecules</i> , 2015, 48, 4158-4163.	4.8	89
52	Effect of Hydrogen Bonding on Linear and Nonlinear Rheology of Entangled Polymer Melts. <i>Macromolecules</i> , 2015, 48, 5988-5996.	4.8	103
53	The importance of experimental design on measurement of dynamic interfacial tension and interfacial rheology in diffusion-limited surfactant systems. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 467, 135-142.	4.7	46
54	A control scheme for filament stretching rheometers with application to polymer melts. <i>Journal of Non-Newtonian Fluid Mechanics</i> , 2013, 194, 14-22.	2.4	49

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55	Extensional Rheology of Entangled Polystyrene Solutions Suggests Importance of Nematic Interactions. ACS Macro Letters, 2013, 2, 741-744.	4.8	93
56	Creep Measurements Confirm Steady Flow after Stress Maximum in Extension of Branched Polymer Melts. Physical Review Letters, 2013, 110, 168301.	7.8	34
57	The chromatographic separation of particles using optical electric fields. Lab on A Chip, 2013, 13, 928.	6.0	2
58	Concentrated Polymer Solutions are Different from Melts: Role of Entanglement Molecular Weight. Macromolecules, 2013, 46, 5026-5035.	4.8	167
59	The impact of deformable interfaces and Poiseuille flow on the thermocapillary instability of three immiscible phases confined in a channel. Physics of Fluids, 2013, 25, .	4.0	5
60	A criterion to assess the impact of confined volumes on surfactant transport to liquid-liquid interfaces. Soft Matter, 2012, 8, 8917.	2.7	26
61	Interfacial Dynamics and Rheology of Polymer-Grafted Nanoparticles at Air-Water and Xylene-Water Interfaces. Langmuir, 2012, 28, 8052-8063.	3.5	101
62	Using bulk convection in a microtensiometer to approach kinetic-limited surfactant dynamics at liquid-liquid interfaces. Journal of Colloid and Interface Science, 2012, 372, 183-191.	9.4	59
63	The effect of alkane tail length of C E8 surfactants on transport to the silicone oil-water interface. Journal of Colloid and Interface Science, 2011, 355, 231-236.	9.4	27
64	An experimental study of the stability of liquid bridges subject to shear-induced closed-flow. Journal of Colloid and Interface Science, 2010, 346, 464-469.	9.4	12
65	Diffusion-limited adsorption to a spherical geometry: The impact of curvature and competitive time scales. Physical Review E, 2010, 82, 011604.	2.1	83
66	A Microtensiometer To Probe the Effect of Radius of Curvature on Surfactant Transport to a Spherical Interface. Langmuir, 2010, 26, 13310-13319.	3.5	103
67	A non-gradient based algorithm for the determination of surface tension from a pendant drop: Application to low Bond number drop shapes. Journal of Colloid and Interface Science, 2009, 333, 557-562.	9.4	64