Rodney D Priestley

List of Publications by Year
in descending order

94 papers	5,253 citations	117619 34 h-index	88628 70 g-index
96 all docs	96 docs citations	96 times ranked	5779 citing authors

#	Article	IF	Citations
1	Epitaxially crystallized polyethylene exhibiting <scp>nearâ€equilibrium</scp> melting temperatures*. Polymer Engineering and Science, 2022, 62, 841-847.	3.1	2
2	How Universities with Healthy Research Ecosystems Can Help Foster Greater Inclusivity. Jacs Au, 2022, 2, 259-260.	7.9	0
3	Surface dynamics of glasses. Applied Physics Reviews, 2022, 9, .	11.3	22
4	Thermoresponsive Polymers for Water Treatment and Collection. Macromolecules, 2022, 55, 1894-1909.	4.8	27
5	Development of an <i>In Vitro</i> Release Assay for Low-Density Cannabidiol Nanoparticles Prepared by Flash NanoPrecipitation. Molecular Pharmaceutics, 2022, 19, 1515-1525.	4.6	11
6	Decoupling of Glassy Dynamics from Viscosity in Thin Supported Poly(<i>n</i>-butyl methacrylate) Films. ACS Polymers Au, 2022, 2, 333-340.	4.1	6
7	Decoupling Role of Film Thickness and Interfacial Effect on Polymer Thin Film Dynamics. ACS Macro Letters, 2021, 10, 1-8.	4.8	24
8	Using colloidal deposition to mobilize immiscible fluids from porous media. Physical Review Fluids, 2021, 6, .	2.5	6
9	Facile synthesis of polydopamine-functionalized hollow graphene composite microspheres and their application in methanol oxidation reaction. Applied Surface Science, 2021, 541, 148329.	6.1	11
10	A Bioinspired Elastic Hydrogel for Solarâ€Driven Water Purification. Advanced Materials, 2021, 33, e2007833.	21.0	119
11	Interfacial Engineering to Tailor the Properties of Multifunctional Ultralight Weight hBN-Polymer Composite Aerogels. ACS Applied Materials & Interfaces, 2021, 13, 13620-13628.	8.0	5
12	Ultrastable Glassy Polymer Films with an Ultradense Brush Morphology. ACS Nano, 2021, 15, 9568-9576.	14.6	18
13	Evolution of Polymer Colloid Structure During Precipitation and Phase Separation. Jacs Au, 2021, 1, 936-944.	7.9	9
14	Mobility gradients yield rubbery surfaces on top of polymer glasses. Nature, 2021, 596, 372-376.	27.8	60
15	Precision Polymer Particles by Flash Nanoprecipitation and Microfluidic Droplet Extraction. ACS Applied Polymer Materials, 2021, 3, 4746-4768.	4.4	17
16	Role of Postdeposition Thermal Annealing on Intracrystallite and Intercrystallite Structuring and Charge Transport in Poly(3-hexylthiophene). ACS Applied Materials & Interfaces, 2021, 13, 999-1007.	8.0	19
17	Direct Visualization and Characterization of Interfacially Adsorbed Polymer atop Nanoparticles and within Nanocomposites. Macromolecules, 2021, 54, 10224-10234.	4.8	14
18	Thermal Properties, Molecular Structure, and Thin-Film Organic Semiconductor Crystallization. Journal of Physical Chemistry C, 2020, 124, 27213-27221.	3.1	11

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19	Multiscale dynamics of colloidal deposition and erosion in porous media. Science Advances, 2020, 6, .	10.3	45
20	Local Disorder Facilitates Chain Stretching in Crowded Polymer Brushes. Journal of Physical Chemistry Letters, 2020, 11, 7814-7818.	4.6	6
21	Polydopamine-based nanoreactors: synthesis and applications in bioscience and energy materials. Chemical Science, 2020, 11, 12269-12281.	7.4	44
22	Circumventing Macroscopic Phase Separation in Immiscible Polymer Mixtures by Bottom-up Deposition. Macromolecules, 2020, 53, 5740-5746.	4.8	5
23	Revealing Interfacial Interactions in Random Copolymer Adsorbed Layers by Solvent Leaching. Macromolecular Rapid Communications, 2020, 41, 1900582.	3.9	6
24	Density of Obstacles Affects Diffusion in Adsorbed Polymer Layers. ACS Macro Letters, 2020, 9, 318-322.	4.8	13
25	In Silico Design Enables the Rapid Production of Surface-Active Colloidal Amphiphiles. ACS Central Science, 2020, 6, 166-173.	11.3	21
26	Roadblocks faced by graphene in replacing graphite in large-scale applications. Oxford Open Materials Science, 2020, 1, .	1.8	2
27	Tunable Properties of MAPLE-Deposited Thin Films in the Presence of Suppressed Segmental Dynamics. ACS Macro Letters, 2019, 8, 1115-1121.	4.8	9
28	Shell Architecture Strongly Influences the Glass Transition, Surface Mobility, and Elasticity of Polymer Core-Shell Nanoparticles. Macromolecules, 2019, 52, 5399-5406.	4.8	22
29	Surface Chemical Functionalization to Achieve Extreme Levels of Molecular Confinement in Hybrid Nanocomposites. Advanced Functional Materials, 2019, 29, 1903132.	14.9	9
30	Paper-based porous graphene/single-walled carbon nanotubes supported Pt nanoparticles as freestanding catalyst for electro-oxidation of methanol. Applied Catalysis B: Environmental, 2019, 257, 117886.	20.2	46
31	Responsive Polymers as Smart Nanomaterials Enable Diverse Applications. Annual Review of Chemical and Biomolecular Engineering, 2019, 10, 361-382.	6.8	37
32	Effect of Local Chain Conformation in Adsorbed Nanolayers on Confined Polymer Molecular Mobility. Physical Review Letters, 2019, 122, 217801.	7.8	96
33	Influence of the Interfacial Effect on Polymer Thin-Film Dynamics Scaled by the Distance of Chain Mobility Suppression by the Substrate. Macromolecules, 2019, 52, 3753-3762.	4.8	23
34	Understanding and controlling the self-healing behavior of 2-ureido-4[1H]-pyrimidinone-functionalized clustery and dendritic dual dynamic supramolecular network. Polymer, 2019, 172, 13-26.	3.8	13
35	On the Stability of Polymeric Nanoparticles Fabricated through Rapid Solvent Mixing. Langmuir, 2019, 35, 709-717.	3.5	23
36	Chapter 3. Flash Nano-precipitation and -complexation to Produce Polymer Colloids. RSC Soft Matter, 2019, , 61-99.	0.4	4

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37	Direct Measurement of the Local Glass Transition in Self-Assembled Copolymers with Nanometer Resolution. ACS Central Science, 2018, 4, 504-511.	11.3	35
38	Tuning Morphology and Melting Temperature in Polyethylene Films by MAPLE. Macromolecules, 2018, 51, 512-519.	4.8	11
39	Rapid Production of Internally Structured Colloids by Flash Nanoprecipitation of Block Copolymer Blends. ACS Nano, 2018, 12, 4660-4668.	14.6	65
40	21st Century Advances in Fluorescence Techniques to Characterize Glassâ€Forming Polymers at the Nanoscale. Macromolecular Chemistry and Physics, 2018, 219, 1700368.	2.2	22
41	Role of Chain Connectivity across an Interface on the Dynamics of a Nanostructured Block Copolymer. Physical Review Letters, 2018, 121, 247801.	7.8	12
42	Constrained-volume assembly of organometal confined in polymer to fabricate multi-heteroatom doped carbon for oxygen reduction reaction. Science China Materials, 2018, 61, 1305-1313.	6.3	9
43	Exploiting physical vapor deposition for morphological control in semiâ€crystalline polymer films. Polymer Crystallization, 2018, 1, e10021.	0.8	13
44	Ultrathin Shell Layers Dramatically Influence Polymer Nanoparticle Surface Mobility. Macromolecules, 2018, 51, 8522-8529.	4.8	15
45	Confinement-Induced Change in Chain Topology of Ultrathin Polymer Fibers. Macromolecules, 2018, 51, 4229-4237.	4.8	8
46	Direct observation of polymer surface mobility via nanoparticle vibrations. Nature Communications, 2018, 9, 2918.	12.8	36
47	Competing polymerâ€"substrate interactions mitigate random copolymer adsorption. Soft Matter, 2018, 14, 7204-7213.	2.7	10
48	Anisotropic crystallization in solution processed chalcogenide thin film by linearly polarized laser. Applied Physics Letters, 2017, 110, .	3.3	11
49	One-step constrained-volume synthesis of silver decorated polymer colloids with antimicrobial and sensing properties. Colloid and Polymer Science, 2017, 295, 521-527.	2.1	12
50	Spatially Distributed Rheological Properties in Confined Polymers by Noncontact Shear. Journal of Physical Chemistry Letters, 2017, 8, 1229-1234.	4.6	21
51	Photoluminescence of Functionalized Germanium Nanocrystals Embedded in Arsenic Sulfide Glass. ACS Applied Materials & Interfaces, 2017, 9, 18911-18917.	8.0	10
52	Discrete mobility on the surface of glasses. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 4854-4856.	7.1	17
53	Combining Precipitation and Vitrification to Control the Number of Surface Patches on Polymer Nanocolloids. Langmuir, 2017, 33, 5835-5842.	3.5	21
54	Scalable Platform for Structured and Hybrid Soft Nanocolloids by Continuous Precipitation in a Confined Environment. Langmuir, 2017, 33, 3444-3449.	3.5	40

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55	Irreversible Adsorption Controls Crystallization in Vapor-Deposited Polymer Thin Films. Journal of Physical Chemistry Letters, 2017, 8, 229-234.	4.6	30
56	Silica-polydopamine coreâ€“shell self-confined templates for ultra-stable hollow Pt anchored N-doped carbon electrocatalysts. Dalton Transactions, 2017, 46, 16419-16425.	3.3	15
57	Phase behaviour of disordered proteins underlying low density and high permeability of liquid organelles. Nature Chemistry, 2017, 9, 1118-1125.	13.6	447
58	Glass transition temperature of colloidal polystyrene dispersed in various liquids. Journal of Polymer Science, Part B: Polymer Physics, 2016, 54, 1776-1783.	2.1	21
59	Soft Multifaced and Patchy Colloids by Constrained Volume Self-Assembly. Macromolecules, 2016, 49, 3580-3585.	4.8	45
60	A One-Step and Scalable Continuous-Flow Nanoprecipitation for Catalytic Reduction of Organic Pollutants in Water. Industrial & Engineering Chemistry Research, 2016, 55, 9851-9856.	3.7	11
61	Nanomedicine as a non-invasive strategy for drug delivery across the blood brain barrier. International Journal of Pharmaceutics, 2016, 515, 331-342.	5.2	65
62	Direct Measurement of Glass Transition Temperature in Exposed and Buried Adsorbed Polymer Nanolayers. Macromolecules, 2016, 49, 4647-4655.	4.8	100
63	Additive Growth and Crystallization of Polymer Films. Macromolecules, 2016, 49, 2860-2867.	4.8	17
64	Rational design and fabrication of coreâ€“shell nanoparticles through a one-step/pot strategy. Journal of Materials Chemistry A, 2016, 4, 6680-6692.	10.3	82
65	Directed Assembly of Soft Colloids through Rapid Solvent Exchange. ACS Nano, 2016, 10, 1425-1433.	14.6	61
66	EDTA- and amine-functionalized graphene oxide as sorbents for Ni(II) removal. Desalination and Water Treatment, 2016, 57, 8942-8951.	1.0	28
67	Role of neighboring domains in determining the magnitude and direction of Tg-confinement effects in binary, immiscible polymer systems. Polymer, 2015, 80, 180-187.	3.8	34
68	On the equivalence between the thermodynamic and dynamic measurements of the glass transition in confined polymers. Journal of Non-Crystalline Solids, 2015, 407, 288-295.	3.1	123
69	Polymer thin film instability from a patterned edge. Applied Physics Letters, 2014, 105, 041603.	3.3	4
70	Transport and Stability of Laser-Deposited Amorphous Polymer Nanoglobules. ACS Macro Letters, 2014, 3, 1046-1050.	4.8	7
71	A one-step and scalable production route to metal nanocatalyst supported polymer nanospheres via flash nanoprecipitation. Journal of Materials Chemistry A, 2014, 2, 17286-17290.	10.3	30
72	Characteristic Length of the Glass Transition in Isochorically Confined Polymer Glasses. ACS Macro Letters, 2014, 3, 501-505.	4.8	21

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73	Nanostructured morphology of polymer films prepared by matrix assisted pulsed laser evaporation. Applied Physics A: Materials Science and Processing, 2013, 110, 771-777.	2.3	20
74	Coreâ€“Shell Fe₃O₄ Polydopamine Nanoparticles Serve Multipurpose as Drug Carrier, Catalyst Support and Carbon Adsorbent. ACS Applied Materials & Interfaces, 2013, 5, 9167-9171.	8.0	335
75	Fragility and glass transition temperature of polymer confined under isobaric and isochoric conditions. Soft Matter, 2013, 9, 7076.	2.7	20
76	Mobility and glass transition temperature of polymer nanospheres. Polymer, 2013, 54, 230-235.	3.8	64
77	MAPLE Deposition of Macromolecules. Macromolecular Chemistry and Physics, 2013, 214, 862-872.	2.2	55
78	Fragility of an Isochorically Confined Polymer Glass. Journal of Physical Chemistry Letters, 2013, 4, 431-436.	4.6	41
79	Origins of nanostructure in amorphous polymer coatings via matrix assisted pulsed laser evaporation. Applied Physics Letters, 2013, 103, .	3.3	18
80	Confined glassy properties of polymer nanoparticles. Journal of Polymer Science, Part B: Polymer Physics, 2013, 51, 574-586.	2.1	30
81	Flash nanoprecipitation of polystyrenenanoparticles. Soft Matter, 2012, 8, 86-93.	2.7	161
82	Understanding and controlling gold nanoparticle formation from a robust self-assembled cyclodextrin solid template. Journal of Materials Chemistry, 2012, 22, 6017.	6.7	14
83	Covalent assembly of metal nanoparticles on cellulose fabric and its antimicrobial activity. Cellulose, 2012, 19, 2141-2151.	4.9	53
84	Photoresponsive Coumarinâ€Stabilized Polymeric Nanoparticles as a Detectable Drug Carrier. Small, 2012, 8, 1693-1700.	10.0	75
85	Ultrastable nanostructured polymer glasses. Nature Materials, 2012, 11, 337-343.	27.5	150
86	Dialysis Nanoprecipitation of Polystyrene Nanoparticles. Macromolecular Rapid Communications, 2012, 33, 1798-1803.	3.9	30
87	Glass Transition Temperature of Polymer Nanoparticles under Soft and Hard Confinement. Macromolecules, 2011, 44, 4001-4006.	4.8	179
88	Glass transition and<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>Î±</mml:mi></mml:mrow></mml:math>-relaxation dynamics of thin films of labeled polystyrene. Physical Review E, 2007, 75, 061806.	2.1	100
89	Evidence for the molecular-scale origin of the suppression of physical ageing in confined polymer: fluorescence and dielectric spectroscopy studies of polymerâ€“silica nanocomposites. Journal of Physics Condensed Matter, 2007, 19, 205120.	1.8	74
90	Effects of Nanoscale Confinement and Interfaces on the Glass Transition Temperatures of a Series of Poly(n-methacrylate) Films. Australian Journal of Chemistry, 2007, 60, 765.	0.9	108

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91	Model polymer nanocomposites provide an understanding of confinement effects in real nanocomposites. Nature Materials, 2007, 6, 278-282.	27.5	618
92	Effect of Fumed Silica Nanoparticles on the Gas Permeation Properties of Substituted Polyacetylene Membranes. Polymer Bulletin, 2007, 58, 995-1003.	3.3	16
93	Structural Relaxation of Polymer Glasses at Surfaces, Interfaces, and In Between. Science, 2005, 309, 456-459.	12.6	659
94	Physical Aging of Ultrathin Polymer Films above and below the Bulk Glass Transition Temperature:â€‰ Effects of Attractive vs Neutral Polymerâˆ'Substrate Interactions Measured by Fluorescence. Macromolecules, 2005, 38, 654-657.	4.8	117