Guruswamy Kumaraswamy

List of Publications by Year
in descending order

82 papers	2,564 citations	257450 24 h-index	197818 49 g-index
83 all docs	83 docs citations	83 times ranked	2663 citing authors

#	Article	IF	Citations
1	Shear-Enhanced Crystallization in Isotactic Polypropylene. 1. Correspondence between in Situ Rheo-Optics and ex Situ Structure Determination. Macromolecules, 1999, 32, 7537-7547.	4.8	345
2	Investigation of the Influence of Polyelectrolyte Charge Density on the Growth of Multilayer Thin Films Prepared by the Layer-by-Layer Technique. Macromolecules, 2002, 35, 889-897.	4.8	240
3	Shear-Enhanced Crystallization in Isotactic Polypropylene. 3. Evidence for a Kinetic Pathway to Nucleation. Macromolecules, 2002, 35, 1762-1769.	4.8	217
4	Shear-enhanced crystallization in isotactic polypropylenePart 2. Analysis of the formation of the oriented â€œskinâ€. Polymer, 2000, 41, 8931-8940.	3.8	161
5	Recent Advances in Understanding Flow Effects on Polymer Crystallization. Industrial & Engineering Chemistry Research, 2002, 41, 6383-6392.	3.7	148
6	Shear-Enhanced Crystallization in Isotactic Polypropylene. In-Situ Synchrotron SAXS and WAXD. Macromolecules, 2004, 37, 9005-9017.	4.8	132
7	Multiple Topologies from Glycopolypeptideâ€"Dendron Conjugate Self-Assembly: Nanorods, Micelles, and Organogels. Journal of the American Chemical Society, 2012, 134, 7796-7802.	13.7	84
8	Adsorption of Nonionic Surfactant on Silica Nanoparticles: Structure and Resultant Interparticle Interactions. Journal of Physical Chemistry B, 2010, 114, 10986-10994.	2.6	71
9	Novel flow apparatus for investigating shear-enhanced crystallization and structure development in semicrystalline polymers. Review of Scientific Instruments, 1999, 70, 2097-2104.	1.3	66
10	Crystallization of Polymers from Stressed Melts. Journal of Macromolecular Science - Reviews in Macromolecular Chemistry and Physics, 2005, 45, 375-397.	2.2	57
11	Enhancing Cubosome Functionality by Coating with a Single Layer of Poly-Îµ-lysine. ACS Applied Materials & Interfaces, 2014, 6, 17126-17133.	8.0	51
12	Fire-Retardant, Self-Extinguishing Inorganic/Polymer Composite Memory Foams. ACS Applied Materials & Interfaces, 2017, 9, 44864-44872.	8.0	51
13	Omniphilic Polymeric Sponges by Ice Templating. Chemistry of Materials, 2016, 28, 1823-1831.	6.7	47
14	Soft Colloidal Scaffolds Capable of Elastic Recovery after Large Compressive Strains. Chemistry of Materials, 2014, 26, 5161-5168.	6.7	45
15	Self-Assembly of Silica Particles in a Nonionic Surfactant Hexagonal Mesophase. Journal of Physical Chemistry B, 2009, 113, 3423-3430.	2.6	42
16	Assembly of Polyethyleneimine in the Hexagonal Mesophase of Nonionic Surfactant: Effect of pH and Temperature. Journal of Physical Chemistry B, 2011, 115, 9059-9069.	2.6	42
17	Linking Catalyst-Coated Isotropic Colloids into â€œActiveâ€•Flexible Chains Enhances Their Diffusivity. ACS Nano, 2017, 11, 10025-10031.	14.6	38
18	Photonic Materials from Self-Assembly of â€œTolerantâ€•Coreâ^'Shell Coated Colloids. Langmuir, 2002, 18, 4150-4154.	3.5	37

#	Article	IF	Citations
19	Synthesis of Poly-<scp>l</scp>-glutamic Acid Grafted Silica Nanoparticles and Their Assembly into Macroporous Structures. Langmuir, 2011, 27, 12124-12133.	3.5	33
20	Structureâ€“property relations in regenerated cellulose fibers: comparison of fibers manufactured using viscose and lyocell processes. Cellulose, 2019, 26, 3655-3669.	4.9	32
21	Three-Dimensional Printing with Waste High-Density Polyethylene. ACS Applied Polymer Materials, 2019, 1, 3157-3164.	4.4	30
22	Characterizing Microvoids in Regenerated Cellulose Fibers Obtained from Viscose and Lyocell Processes. Macromolecules, 2019, 52, 3987-3994.	4.8	28
23	3D printing of semicrystalline polypropylene: towards eliminating warpage of printed objects. Bulletin of Materials Science, 2020, 43, 1.	1.7	28
24	Volume Transition of PNIPAM in a Nonionic Surfactant Hexagonal Mesophase. Macromolecules, 2010, 43, 4782-4790.	4.8	25
25	Elastic piezoelectric aerogels from isotropic and directionally ice-templated cellulose nanocrystals: comparison of structure and energy harvesting. Cellulose, 2021, 28, 6323.	4.9	24
26	Ultrathin Sheets of Metal or Metal Sulfide from Molecularly Thin Sheets of Metal Thiolates in Solution. Chemistry of Materials, 2014, 26, 3436-3442.	6.7	23
27	Colloidal assembly by ice templating. Faraday Discussions, 2016, 186, 61-76.	3.2	21
28	Polymerization in Surfactant Liquid Crystalline Phases. Chemistry of Materials, 2005, 17, 2460-2465.	6.7	20
29	Self-Standing Three-Dimensional Networks of Nanoparticles With Controllable Morphology by Dynamic Templating of Surfactant Hexagonal Domains. Chemistry of Materials, 2011, 23, 1448-1455.	6.7	20
30	Elastic Compressible Energy Storage Devices from Ice Templated Polymer Gels treated with Polyphenols. Journal of Physical Chemistry C, 2017, 121, 3270-3278.	3.1	20
31	Fluorinated Nanocellulose-Reinforced All-Organic Flexible Ferroelectric Nanocomposites for Energy Generation. Journal of Physical Chemistry C, 2018, 122, 16540-16549.	3.1	20
32	Layered Inorganicâˆ’Organic Clay-like Nanocomposites Rearrange To Form Silsesquioxanes on Acid Treatment. Journal of Physical Chemistry B, 2005, 109, 16034-16039.	2.6	19
33	Phase Separation of DMDBS from PP: Effect of Polymer Molecular Weight and Tacticity. Macromolecules, 2011, 44, 2358-2364.	4.8	18
34	Aqueous dispersions of lipid nanoparticles wet hydrophobic and superhydrophobic surfaces. Soft Matter, 2018, 14, 205-215.	2.7	16
35	Collapse Transition in Random Copolymer Solutions. Macromolecules, 2006, 39, 9621-9629.	4.8	15
36	Pathway to copolymer collapse in dilute solution: Uniform versus random distribution of comonomers. Journal of Chemical Physics, 2007, 127, 234901.	3.0	15

#	Article	IF	Citations
37	Polymer crystallization in the presence of â€œstickyâ€•additives. Journal of Chemical Physics, 2009, 131, 074905.	3.0	15
38	Large Centimeter-Sized Macroporous Ferritin Gels as Versatile Nanoreactors. Chemistry of Materials, 2013, 25, 4813-4819.	6.7	13
39	Nanoparticle Size Controls Aggregation in Lamellar Nonionic Surfactant Mesophase. Langmuir, 2013, 29, 9643-9650.	3.5	13
40	Capillary uptake in macroporous compressible sponges. Soft Matter, 2017, 13, 5731-5740.	2.7	13
41	Nanoparticle Assembly:A Perspective and some Unanswered Questions. Current Science, 2017, 112, 1635.	0.8	13
42	Lamellar Melting, Not Crystal Motion, Results in Softening of Polyoxymethylene on Heating. Macromolecules, 2012, 45, 5967-5978.	4.8	12
43	Critical Role of Processing on the Mechanical Properties of Cross-Linked Highly Loaded Nanocomposites. Macromolecules, 2019, 52, 5955-5962.	4.8	12
44	Gelation of Covalently Edge-Modified Laponites in Aqueous Media. 1. Rheology and Nuclear Magnetic Resonance. Journal of Physical Chemistry B, 2008, 112, 4536-4544.	2.6	11
45	Soft, Elastic Macroporous Monolith by Templating High Internal Phase Emulsions with Aminoclay: Preparation, Pore Structure and Use for Enzyme Immobilization. ACS Applied Nano Materials, 2018, 1, 3407-3416.	5.0	11
46	Core-Size Dispersity Dominates the Self-Assembly of Polymer-Grafted Nanoparticles in Solution. Macromolecules, 2019, 52, 4888-4894.	4.8	11
47	The Template Determines Whether Chemically Identical Nanoparticle Scaffolds Show Elastic Recovery or Plastic Failure. Langmuir, 2016, 32, 11623-11630.	3.5	10
48	Single-Particle Tracking To Probe the Local Environment in Ice-Templated Crosslinked Colloidal Assemblies. Langmuir, 2018, 34, 4603-4613.	3.5	10
49	Highly compressible ceramic/polymer aerogel-based piezoelectric nanogenerators with enhanced mechanical energy harvesting property. Ceramics International, 2021, 47, 15750-15758.	4.8	10
50	Preparation of macroporous scaffolds with holes in pore walls and pressure driven flows through them. RSC Advances, 2018, 8, 24731-24739.	3.6	9
51	Synthesis of functional hybrid silica scaffolds with controllable hierarchical porosity by dynamic templating. Chemical Communications, 2012, 48, 5292.	4.1	8
52	Process-Induced Microstructure in Viscose and Lyocell Regenerated Cellulose Fibers Revealed by SAXS and SEM of Acid-Etched Samples. ACS Applied Polymer Materials, 2021, 3, 2598-2607.	4.4	8
53	The influence of DMDBS on the morphology and mechanical properties of polypropylene cast films. Polymer Engineering and Science, 2011, 51, 2013-2023.	3.1	7
54	Exclusion from Hexagonal Mesophase Surfactant Domains Drives End-to-End Enchainment of Rod-Like Particles. Journal of Physical Chemistry B, 2013, 117, 12661-12668.	2.6	7

#	Article	IF	Citations
55	Lightâ€Triggered, Spatially Localized Chemistry by Photoinduced Electron Transfer. Angewandte Chemie - International Edition, 2019, 58, 2715-2719.	13.8	7
56	Phase behaviour of the ternary system: monooleinâ€“waterâ€“branched polyethylenimine. Soft Matter, 2015, 11, 5705-5711.	2.7	6
57	Colloidal assembly by directional ice templating. Soft Matter, 2021, 17, 4098-4108.	2.7	6
58	Polycondensation in liquid crystalline phases of nonionic surfactants. Kinetics and morphology. Polymer, 2005, 46, 7961-7968.	3.8	5
59	Composites of Polypropylene with Layered Mg-Silsesquioxanes Show an Unusual Combination of Properties. Industrial & Engineering Chemistry Research, 2008, 47, 3891-3899.	3.7	5
60	Thermodynamics of high polymer solutions. Resonance, 2017, 22, 415-426.	0.3	5
61	Effect of electrostatic interactions on structure and mechanical properties of ice templated colloid-polymer composites. Journal Physics D: Applied Physics, 2019, 52, 214002.	2.8	5
62	Modeling the universal viscoelastic response of polymer fibers. Physical Review Materials, 2018, 2, .	2.4	5
63	Materials prepared by Freezing-Induced Self-Assembly of Dispersed Solutes: A Review. Materials Advances, 2022, 3, 3041-3054.	5.4	5
64	Rigidity Dictates Spontaneous Helix Formation of Thermoresponsive Colloidal Chains in Poor Solvent. ACS Nano, 2021, 15, 19702-19711.	14.6	5
65	Compact polar moieties induce lipidâ€“water systems to form discontinuous reverse micellar phase. Soft Matter, 2015, 11, 5417-5424.	2.7	4
66	On the sensitivity of alginate rheology to composition. Soft Matter, 2019, 15, 159-165.	2.7	4
67	Ice templated nanocomposites containing rod-like hematite particles: Interplay between particle anisotropy and particleâ€“matrix interactions. Journal of Applied Physics, 2020, 128, 034702.	2.5	4
68	Large PAMAM Dendron Induces Formation of Unusual <i>P</i>4₃32 Mesophase in Monoolein/Water Systems. Langmuir, 2018, 34, 6827-6834.	3.5	3
69	Microstructural differences between Viscose and Lyocell revealed by in-situ studies of wet and dry fibers. Cellulose, 2020, 27, 1195-1206.	4.9	3
70	Polymer and Colloidal Inclusions in Lyotropic Lamellar and Hexagonal Surfactant Mesophases. Behavior Research Methods, 2013, 18, 181-208.	4.0	3
71	Slip behavior during pressure driven flow of Laponite suspension. Physics of Fluids, 2021, 33, 053102.	4.0	2
72	Large Amplitude Oscillatory Shear Induces Crystal Chain Orientation in Velocity Gradient Direction. ACS Macro Letters, 2014, 3, 6-9.	4.8	1

#	Article	IF	Citations
73	Modeling and Theory: general discussion. Faraday Discussions, 2016, 186, 371-398.	3.2	1
74	Applications to Soft Matter: general discussion. Faraday Discussions, 2016, 186, 503-527.	3.2	1
75	Nanocomposites: general discussion. Faraday Discussions, 2016, 186, 277-293.	3.2	1
76	Molecular motifs for additives that retard PEO crystallization. Polymer Engineering and Science, 2017, 57, 857-864.	3.1	1
77	Synthesis of Nanoparticle Assemblies: general discussion. Faraday Discussions, 2016, 186, 123-152.	3.2	0
78	Living in the Polymer Age. Resonance, 2017, 22, 333-334.	0.3	0
79	Chemistry that impacts us (and the scientists behind them). Resonance, 2017, 22, 979-981.	0.3	0
80	Accelerated in vitro model for occlusion of biliary stents: investigating the role played by dietary fibre. BMJ Innovations, 2018, 4, 39-45.	1.7	0
81	Lightâ€Triggered, Spatially Localized Chemistry by Photoinduced Electron Transfer. Angewandte Chemie, 2019, 131, 2741-2745.	2.0	0
82	Elastic response of polymer-nanoparticle composite sponges: Microscopic model for large deformations. Physical Review Materials, 2022, 6, .	2.4	0