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	Materials prepared by Freezing-Induced Self-Assembly of Dispersed Solutes: A Review. Materials Advances, 2022, 3, 3041-3054.	5.4	5
2	Elastic response of polymer-nanoparticle composite sponges: Microscopic model for large deformations. Physical Review Materials, 2022, 6, .	2.4	0
3	Colloidal assembly by directional ice templating. Soft Matter, 2021, 17, 4098-4108.	2.7	6
4	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
5	Slip behavior during pressure driven flow of Laponite suspension. Physics of Fluids, 2021, 33, 053102.	4.0	2
6	Elastic piezoelectric aerogels from isotropic and directionally ice-templated cellulose nanocrystals: comparison of structure and energy harvesting. Cellulose, 2021, 28, 6323.	4.9	24
7	Highly compressible ceramic/polymer aerogel-based piezoelectric nanogenerators with enhanced mechanical energy harvesting property. Ceramics International, 2021, 47, 15750-15758.	4.8	10
8	Rigidity Dictates Spontaneous Helix Formation of Thermoresponsive Colloidal Chains in Poor Solvent. ACS Nano, 2021, 15, 19702-19711.	14.6	5
9	Microstructural differences between Viscose and Lyocell revealed by in-situ studies of wet and dry fibers. Cellulose, 2020, 27, 1195-1206.	4.9	3
10	3D printing of semicrystalline polypropylene: towards eliminating warpage of printed objects. Bulletin of Materials Science, 2020, 43, 1.	1.7	28
11	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
12	Critical Role of Processing on the Mechanical Properties of Cross-Linked Highly Loaded Nanocomposites. Macromolecules, 2019, 52, 5955-5962.	4.8	12
13	Three-Dimensional Printing with Waste High-Density Polyethylene. ACS Applied Polymer Materials, 2019, 1, 3157-3164.	4.4	30
14	On the sensitivity of alginate rheology to composition. Soft Matter, 2019, 15, 159-165.	2.7	4
15	Lightâ€Triggered, Spatially Localized Chemistry by Photoinduced Electron Transfer. Angewandte Chemie - International Edition, 2019, 58, 2715-2719.	13.8	7
16	Lightâ€Triggered, Spatially Localized Chemistry by Photoinduced Electron Transfer. Angewandte Chemie, 2019, 131, 2741-2745.	2.0	0
17	Core-Size Dispersity Dominates the Self-Assembly of Polymer-Grafted Nanoparticles in Solution. Macromolecules, 2019, 52, 4888-4894.	4.8	11
18	Characterizing Microvoids in Regenerated Cellulose Fibers Obtained from Viscose and Lyocell Processes. Macromolecules, 2019, 52, 3987-3994.	4.8	28

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19	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
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	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
22	Single-Particle Tracking To Probe the Local Environment in Ice-Templated Crosslinked Colloidal Assemblies. Langmuir, 2018, 34, 4603-4613.	3.5	10
23	Aqueous dispersions of lipid nanoparticles wet hydrophobic and superhydrophobic surfaces. Soft Matter, 2018, 14, 205-215.	2.7	16
24	Large PAMAM Dendron Induces Formation of Unusual <i>P</i>4₃32 Mesophase in Monoolein/Water Systems. Langmuir, 2018, 34, 6827-6834.	3.5	3
25	Preparation of macroporous scaffolds with holes in pore walls and pressure driven flows through them. RSC Advances, 2018, 8, 24731-24739.	3.6	9
26	Fluorinated Nanocellulose-Reinforced All-Organic Flexible Ferroelectric Nanocomposites for Energy Generation. Journal of Physical Chemistry C, 2018, 122, 16540-16549.	3.1	20
27	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
28	Modeling the universal viscoelastic response of polymer fibers. Physical Review Materials, 2018, 2, .	2.4	5
29	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
30	Thermodynamics of high polymer solutions. Resonance, 2017, 22, 415-426.	0.3	5
31	Linking Catalyst-Coated Isotropic Colloids into â€œActiveâ€•Flexible Chains Enhances Their Diffusivity. ACS Nano, 2017, 11, 10025-10031.	14.6	38
32	Capillary uptake in macroporous compressible sponges. Soft Matter, 2017, 13, 5731-5740.	2.7	13
33	Fire-Retardant, Self-Extinguishing Inorganic/Polymer Composite Memory Foams. ACS Applied Materials & Interfaces, 2017, 9, 44864-44872.	8.0	51
34	Living in the Polymer Age. Resonance, 2017, 22, 333-334.	0.3	0
35	Molecular motifs for additives that retard PEO crystallization. Polymer Engineering and Science, 2017, 57, 857-864.	3.1	1
36	Chemistry that impacts us (and the scientists behind them). Resonance, 2017, 22, 979-981.	0.3	0

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37	Nanoparticle Assembly:A Perspective and some Unanswered Questions. Current Science, 2017, 112, 1635.	0.8	13
38	Modeling and Theory: general discussion. Faraday Discussions, 2016, 186, 371-398.	3.2	1
39	Omniphilic Polymeric Sponges by Ice Templating. Chemistry of Materials, 2016, 28, 1823-1831.	6.7	47
40	Synthesis of Nanoparticle Assemblies: general discussion. Faraday Discussions, 2016, 186, 123-152.	3.2	0
41	Applications to Soft Matter: general discussion. Faraday Discussions, 2016, 186, 503-527.	3.2	1
42	Nanocomposites: general discussion. Faraday Discussions, 2016, 186, 277-293.	3.2	1
43	The Template Determines Whether Chemically Identical Nanoparticle Scaffolds Show Elastic Recovery or Plastic Failure. Langmuir, 2016, 32, 11623-11630.	3.5	10
44	Colloidal assembly by ice templating. Faraday Discussions, 2016, 186, 61-76.	3.2	21
45	Compact polar moieties induce lipidâ€“water systems to form discontinuous reverse micellar phase. Soft Matter, 2015, 11, 5417-5424.	2.7	4
46	Phase behaviour of the ternary system: monooleinâ€“waterâ€“branched polyethylenimine. Soft Matter, 2015, 11, 5705-5711.	2.7	6
47	Soft Colloidal Scaffolds Capable of Elastic Recovery after Large Compressive Strains. Chemistry of Materials, 2014, 26, 5161-5168.	6.7	45
48	Enhancing Cubosome Functionality by Coating with a Single Layer of Poly-Îµ-lysine. ACS Applied Materials & Interfaces, 2014, 6, 17126-17133.	8.0	51
49	Large Amplitude Oscillatory Shear Induces Crystal Chain Orientation in Velocity Gradient Direction. ACS Macro Letters, 2014, 3, 6-9.	4.8	1
50	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
51	Large Centimeter-Sized Macroporous Ferritin Gels as Versatile Nanoreactors. Chemistry of Materials, 2013, 25, 4813-4819.	6.7	13
52	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
53	Nanoparticle Size Controls Aggregation in Lamellar Nonionic Surfactant Mesophase. Langmuir, 2013, 29, 9643-9650.	3.5	13
54	Polymer and Colloidal Inclusions in Lyotropic Lamellar and Hexagonal Surfactant Mesophases. Behavior Research Methods, 2013, 18, 181-208.	4.0	3

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55	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
56	Synthesis of functional hybrid silica scaffolds with controllable hierarchical porosity by dynamic templating. Chemical Communications, 2012, 48, 5292.	4.1	8
57	Lamellar Melting, Not Crystal Motion, Results in Softening of Polyoxymethylene on Heating. Macromolecules, 2012, 45, 5967-5978.	4.8	12
58	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
59	Phase Separation of DMDBS from PP: Effect of Polymer Molecular Weight and Tacticity. Macromolecules, 2011, 44, 2358-2364.	4.8	18
60	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
61	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
62	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
63	Volume Transition of PNIPAM in a Nonionic Surfactant Hexagonal Mesophase. Macromolecules, 2010, 43, 4782-4790.	4.8	25
64	Adsorption of Nonionic Surfactant on Silica Nanoparticles: Structure and Resultant Interparticle Interactions. Journal of Physical Chemistry B, 2010, 114, 10986-10994.	2.6	71
65	Polymer crystallization in the presence of â€œstickyâ€•additives. Journal of Chemical Physics, 2009, 131, 074905.	3.0	15
66	Self-Assembly of Silica Particles in a Nonionic Surfactant Hexagonal Mesophase. Journal of Physical Chemistry B, 2009, 113, 3423-3430.	2.6	42
67	Composites of Polypropylene with Layered Mg-Silsesquioxanes Show an Unusual Combination of Properties. Industrial & Engineering Chemistry Research, 2008, 47, 3891-3899.	3.7	5
68	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
69	Pathway to copolymer collapse in dilute solution: Uniform versus random distribution of comonomers. Journal of Chemical Physics, 2007, 127, 234901.	3.0	15
70	Collapse Transition in Random Copolymer Solutions. Macromolecules, 2006, 39, 9621-9629.	4.8	15
71	Polycondensation in liquid crystalline phases of nonionic surfactants. Kinetics and morphology. Polymer, 2005, 46, 7961-7968.	3.8	5
72	Polymerization in Surfactant Liquid Crystalline Phases. Chemistry of Materials, 2005, 17, 2460-2465.	6.7	20

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73	Layered Inorganicâ˜Organic Clay-like Nanocomposites Rearrange To Form Silsesquioxanes on Acid Treatment. Journal of Physical Chemistry B, 2005, 109, 16034-16039.	2.6	19
74	Crystallization of Polymers from Stressed Melts. Journal of Macromolecular Science - Reviews in Macromolecular Chemistry and Physics, 2005, 45, 375-397.	2.2	57
75	Shear-Enhanced Crystallization in Isotactic Polypropylene. In-Situ Synchrotron SAXS and WAXD. Macromolecules, 2004, 37, 9005-9017.	4.8	132
76	Photonic Materials from Self-Assembly of â€œTolerantâ€•Coreâ˜Shell Coated Colloids. Langmuir, 2002, 18, 4150-4154.	3.5	37
77	Recent Advances in Understanding Flow Effects on Polymer Crystallization. Industrial & Engineering Chemistry Research, 2002, 41, 6383-6392.	3.7	148
78	Shear-Enhanced Crystallization in Isotactic Polypropylene. 3. Evidence for a Kinetic Pathway to Nucleation. Macromolecules, 2002, 35, 1762-1769.	4.8	217
79	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
80	Shear-enhanced crystallization in isotactic polypropylenePart 2. Analysis of the formation of the oriented â€œskinâ€. Polymer, 2000, 41, 8931-8940.	3.8	161
81	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
82	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