Shivaprakash N Ramakrishna

List of Publications by Year
in descending order

63 papers	2,078 citations	159358 30 h-index	243296 44 g-index
68 all docs	68 docs citations	68 times ranked	2059 citing authors

#	Article	IF	Citations
1	Magnetic propulsion of colloidal microrollers controlled by electrically modulated friction. Soft Matter, 2021, 17, 1037-1047.	1.2	12
2	Topology and Molecular Architecture of Polyelectrolytes Determine Their pH-Responsiveness When Assembled on Surfaces. ACS Macro Letters, 2021, 10, 90-97.	2.3	8
3	Exploring the roles of roughness, friction and adhesion in discontinuous shear thickening by means of thermo-responsive particles. Nature Communications, 2021, 12, 1477.	5.8	44
4	KAT Ligation for Rapid and Facile Covalent Attachment of Biomolecules to Surfaces. ACS Applied Materials & Interfaces, 2021, 13, 29113-29121.	4.0	5
5	Functionalized wood with tunable tribopolarity for efficient triboelectric nanogenerators. Matter, 2021, 4, 3049-3066.	5.0	66
6	Dispersity within Brushes Plays a Major Role in Determining Their Interfacial Properties: The Case of Oligoxazoline-Based Graft Polymers. Journal of the American Chemical Society, 2021, 143, 19067-19077.	6.6	21
7	Reactive-Oxygen-Species-Mediated Surface Oxidation of Single-Molecule DNA Origami by an Atomic Force Microscope Tip-Mounted C60 Photocatalyst. ACS Nano, 2021, , .	7.3	0
8	Probing the frictional properties of soft materials at the nanoscale. Nanoscale, 2020, 12, 2292-2308.	2.8	29
9	Fabrication of Biopassive Surfaces Using Poly(2â€alkylâ€2â€oxazoline)s: Recent Progresses and Applications. Advanced Materials Interfaces, 2020, 7, 2000943.	1.9	15
10	Polymer Topology Determines the Formation of Protein Corona on Coreâ€“Shell Nanoparticles. ACS Nano, 2020, 14, 12708-12718.	7.3	45
11	Single-Molecule AFM Study of DNA Damage by ¹O₂ Generated from Photoexcited C₆₀. Journal of Physical Chemistry Letters, 2020, 11, 7819-7826.	2.1	10
12	Topological Polymer Chemistry Enters Materials Science: Expanding the Applicability of Cyclic Polymers. ACS Macro Letters, 2020, 9, 1024-1033.	2.3	44
13	Functional Nanoassemblies of Cyclic Polymers Show Amplified Responsiveness and Enhanced Protein-Binding Ability. ACS Nano, 2020, 14, 10054-10067.	7.3	23
14	Brushes, Graft Copolymers, or Bottlebrushes? The Effect of Polymer Architecture on the Nanotribological Properties of Grafted-from Assemblies. Langmuir, 2019, 35, 11255-11264.	1.6	23
15	Load and Velocity Dependence of Friction Mediated by Dynamics of Interfacial Contacts. Physical Review Letters, 2019, 123, 116102.	2.9	26
16	Bioinert and Lubricious Surfaces by Macromolecular Design. Langmuir, 2019, 35, 13521-13535.	1.6	19
17	Facile tuning of the mechanical properties of a biocompatible soft material. Scientific Reports, 2019, 9, 7125.	1.6	4
18	Indenting polymer brushes of varying grafting density in a viscous fluid: A gradient approach to understanding fluid confinement. Polymer, 2019, 169, 115-123.	1.8	8

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19	Comblike Polymers with Topologically Different Side Chains for Surface Modification: Assembly Process and Interfacial Physicochemical Properties. Macromolecules, 2019, 52, 1632-1641.	2.2	22
20	Surface-grafted assemblies of cyclic polymers: Shifting between high friction and extreme lubricity. European Polymer Journal, 2019, 110, 301-306.	2.6	33
21	Understanding Complex Tribofilms by Means of H₃BO₃â€“B₂O₃ Model Glasses. Langmuir, 2018, 34, 2219-2234.	1.6	22
22	Hairy and Slippery Polyoxazoline-Based Copolymers on Model and Cartilage Surfaces. Biomacromolecules, 2018, 19, 680-690.	2.6	36
23	Roughness-dependent tribology effects on discontinuous shear thickening. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, 5117-5122.	3.3	116
24	Engineering Lubricious, Biopassive Polymer Brushes by Surface-Initiated, Controlled Radical Polymerization. Industrial & Engineering Chemistry Research, 2018, 57, 4600-4606.	1.8	5
25	Lubrication of Si-Based Tribopairs with a Hydrophobic Ionic Liquid: The Multiscale Influence of Water. Journal of Physical Chemistry C, 2018, 122, 7331-7343.	1.5	23
26	Design and characterization of ultrastable, biopassive and lubricious cyclic poly(2-alkyl-2-oxazoline) brushes. Polymer Chemistry, 2018, 9, 2580-2589.	1.9	56
27	Mixing Poly(ethylene glycol) and Poly(2-alkyl-2-oxazoline)s Enhances Hydration and Viscoelasticity of Polymer Brushes and Determines Their Nanotribological and Antifouling Properties. ACS Applied Materials & Interfaces, 2018, 10, 41839-41848.	4.0	36
28	Surface Density Variation within Cyclic Polymer Brushes Reveals Topology Effects on Their Nanotribological and Biopassive Properties. ACS Macro Letters, 2018, 7, 1455-1460.	2.3	39
29	Chemical Design of Nonâ€Ionic Polymer Brushes as Biointerfaces: Poly(2â€oxazine)s Outperform Both Poly(2â€oxazoline)s and PEG. Angewandte Chemie, 2018, 130, 11841-11846.	1.6	6
30	Chemical Design of Nonâ€Ionic Polymer Brushes as Biointerfaces: Poly(2â€oxazine)s Outperform Both Poly(2â€oxazoline)s and PEG. Angewandte Chemie - International Edition, 2018, 57, 11667-11672.	7.2	110
31	The Role of Cu⁰ in Surface-Initiated Atom Transfer Radical Polymerization: Tuning Catalyst Dissolution for Tailoring Polymer Interfaces. Macromolecules, 2018, 51, 6825-6835.	2.2	44
32	Effects of Lateral Deformation by Thermoresponsive Polymer Brushes on the Measured Friction Forces. Langmuir, 2017, 33, 4164-4171.	1.6	22
33	Gradient nanocomposite printing by dip pen nanolithography. Composites Science and Technology, 2017, 138, 186-200.	3.8	8
34	Loops and Cycles at Surfaces: The Unique Properties of Topological Polymer Brushes. Chemistry - A European Journal, 2017, 23, 12433-12442.	1.7	55
35	RÃ¼cktitelbild: Nextâ€Generation Polymer Shells for Inorganic Nanoparticles are Highly Compact, Ultraâ€Dense, and Longâ€Lasting Cyclic Brushes (Angew. Chem. 16/2017). Angewandte Chemie, 2017, 129, 4702-4702.	1.6	0
36	Nextâ€Generation Polymer Shells for Inorganic Nanoparticles are Highly Compact, Ultraâ€Dense, and Longâ€Lasting Cyclic Brushes. Angewandte Chemie - International Edition, 2017, 56, 4507-4511.	7.2	86

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37	Nextâ€Generation Polymer Shells for Inorganic Nanoparticles are Highly Compact, Ultraâ€Dense, and Longâ€Lasting Cyclic Brushes. Angewandte Chemie, 2017, 129, 4578-4582.	1.6	14
38	Fabrication and Interfacial Properties of Polymer Brush Gradients by Surface-Initiated Cu(0)-Mediated Controlled Radical Polymerization. Macromolecules, 2017, 50, 2436-2446.	2.2	61
39	Controlled Crosslinking Is a Tool To Precisely Modulate the Nanomechanical and Nanotribological Properties of Polymer Brushes. Macromolecules, 2017, 50, 2932-2941.	2.2	45
40	Topology Effects on the Structural and Physicochemical Properties of Polymer Brushes. Macromolecules, 2017, 50, 7760-7769.	2.2	86
41	Frontispiece: Loops and Cycles at Surfaces: The Unique Properties of Topological Polymer Brushes. Chemistry - A European Journal, 2017, 23, .	1.7	0
42	Berichtigung: Topological Polymer Chemistry Enters Surface Science: Linear versus Cyclic Polymer Brushes. Angewandte Chemie, 2017, 129, 2272-2272.	1.6	1
43	Titelbild: Topological Polymer Chemistry Enters Surface Science: Linear versus Cyclic Polymer Brushes (Angew. Chem. 50/2016). Angewandte Chemie, 2016, 128, 15671-15671.	1.6	1
44	Crosslinking Polymer Brushes with Ethylene Glycol-Containing Segments: Influence on Physicochemical and Antifouling Properties. Langmuir, 2016, 32, 10317-10327.	1.6	51
45	Cell Adhesion: Stemâ€Cell Clinging by a Thread: AFM Measure of Polymerâ€Brush Lateral Deformation (Adv. Mater. Interfaces 3/2016). Advanced Materials Interfaces, 2016, 3, .	1.9	2
46	Topological Polymer Chemistry Enters Surface Science: Linear versus Cyclic Polymer Brushes. Angewandte Chemie - International Edition, 2016, 55, 15583-15588.	7.2	149
47	Topological Polymer Chemistry Enters Surface Science: Linear versus Cyclic Polymer Brushes. Angewandte Chemie, 2016, 128, 15812-15817.	1.6	27
48	Understanding the effect of hydrophobic protecting blocks on the stability and biopassivity of polymer brushes in aqueous environments: A TiramisÃ¹ for cell-culture applications. Polymer, 2016, 98, 470-480.	1.8	33
49	Stemâ€Cell Clinging by a Thread: AFM Measure of Polymerâ€Brush Lateral Deformation. Advanced Materials Interfaces, 2016, 3, 1500456.	1.9	40
50	Layering of ionic liquids on rough surfaces. Nanoscale, 2016, 8, 4094-4106.	2.8	48
51	Lateral Deformability of Polymer Brushes by AFM-Based Method. Chimia, 2015, 69, 709.	0.3	0
52	Versatile method for AFM-tip functionalization with biomolecules: fishing a ligand by means of an in situ click reaction. Nanoscale, 2015, 7, 6599-6606.	2.8	9
53	Ultrathin, freestanding, stimuli-responsive, porous membranes from polymer hydrogel-brushes. Nanoscale, 2015, 7, 13017-13025.	2.8	39
54	Amplified Responsiveness of Multilayered Polymer Grafts: Synergy between Brushes and Hydrogels. Macromolecules, 2015, 48, 7106-7116.	2.2	36

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55	Stratified Polymer Grafts: Synthesis and Characterization of Layered â€˜Brushâ€™ and â€˜Gelâ€™ Structures. Advanced Materials Interfaces, 2014, 1, 1300007.	1.9	44
56	Polymeric Thin Films: Stratified Polymer Grafts: Synthesis and Characterization of Layered â€˜Brushâ€™ and â€˜Gelâ€™ Structures (Adv. Mater. Interfaces 1/2014). Advanced Materials Interfaces, 2014, 1, n/a-n/a.	1.9	1
57	Exploring Lubrication Regimes at the Nanoscale: Nanotribological Characterization of Silica and Polymer Brushes in Viscous Solvents. Langmuir, 2013, 29, 10149-10158.	1.6	37
58	Tuning Surface Mechanical Properties by Amplified Polyelectrolyte Self-Assembly: Where â€œGrafting-fromâ€•Meets â€œGrafting-toâ€• ACS Applied Materials & Interfaces, 2013, 5, 4913-4920.	4.0	12
59	Study of Adhesion and Friction Properties on a Nanoparticle Gradient Surface: Transition from JKR to DMT Contact Mechanics. Langmuir, 2013, 29, 175-182.	1.6	42
60	Adhesion and Friction Properties of Polymer Brushes on Rough Surfaces: A Gradient Approach. Langmuir, 2013, 29, 15251-15259.	1.6	38
61	Poly(acrylamide) films at the solvent-induced glass transition: adhesion, tribology, and the influence of crosslinking. Soft Matter, 2012, 8, 9092.	1.2	43
62	Controlling Adhesion Force by Means of Nanoscale Surface Roughness. Langmuir, 2011, 27, 9972-9978.	1.6	84
63	An Intensive Short Course on Atomic-Force Microscopy. , 0, , .		2