Dominique Hourdet

List of Publications by Year
in descending order

75 papers	3,843 citations	126907 33 h-index	123424 61 g-index
77 all docs	77 docs citations	77 times ranked	4132 citing authors

#	Article	IF	Citations
1	Nanoparticle solutions as adhesives for gels and biological tissues. Nature, 2014, 505, 382-385.	27.8	642
2	pH-Responsive Gels of Hydrophobically Modified Poly(acrylic acid). Macromolecules, 1997, 30, 8278-8285.	4.8	334
3	Large Strain and Fracture Properties of Poly(dimethylacrylamide)/Silica Hybrid Hydrogels. Macromolecules, 2010, 43, 2554-2563.	4.8	265
4	Synthesis and thermoassociative properties in aqueous solution of graft copolymers containing poly() Tj ETQq0 0 0 rgBT /Overlock 10 Tf	3.8	175
5	Thermoresponsive Complex Coacervateâ€Based Underwater Adhesive. Advanced Materials, 2019, 31, e1808179.	21.0	137
6	Nano-hybrid self-crosslinked PDMA/silica hydrogels. Soft Matter, 2010, 6, 3619.	2.7	119
7	Time Dependence of Dissipative and Recovery Processes in Nanohybrid Hydrogels. Macromolecules, 2013, 46, 4095-4104.	4.8	114
8	Thermoresponsive Toughening with Crack Bifurcation in Phaseâ€Separated Hydrogels under Isochoric Conditions. Advanced Materials, 2016, 28, 5857-5864.	21.0	91
9	Reversible adhesion between a hydrogel and a polymer brush. Soft Matter, 2012, 8, 8184.	2.7	90
10	Synthesis and Rheological Behavior of New Hydrophobically Modified Hydrogels with Tunable Properties. Macromolecules, 2006, 39, 8128-8139.	4.8	84
11	Responsive Hybrid Self-Assemblies in Aqueous Media. Langmuir, 2007, 23, 147-158.	3.5	75
12	Thermoreversible Behavior of Associating Polymer Solutions:Â Thermothinning versus Thermothickening. Macromolecules, 2005, 38, 8512-8521.	4.8	74
13	Stimuli-Responsive Toughening of Hydrogels. Chemistry of Materials, 2021, 33, 7633-7656.	6.7	68
14	New block-copolymer thermoassociating matrices for DNA sequencing: Effect of molecular structure on rheology and resolution. Electrophoresis, 2001, 22, 720-728.	2.4	67
15	Hydrophobic Hydrogels with Fruitâ€Like Structure and Functions. Advanced Materials, 2019, 31, e1900702.	21.0	64
16	Hydrophobically Modified Dimethylacrylamide Synthesis and Rheological Behavior. Macromolecules, 2005, 38, 2981-2989.	4.8	63
17	Synthesis of graft polyacrylamide with responsive self-assembling properties in aqueous media. Polymer, 2007, 48, 7098-7112.	3.8	62
18	Molar mass control of poly(N-isopropylacrylamide) and poly(acrylic acid) in aqueous polymerizations initiated by redox initiators based on persulfates. Macromolecular Chemistry and Physics, 1998, 199, 1387-1392.	2.2	53

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19	Thermoresponsive Toughening in LCST-Type Hydrogels with Opposite Topology: From Structure to Fracture Properties. Macromolecules, 2016, 49, 4295-4306.	4.8	49
20	Thermoassociative graft copolymers based on poly(N-isopropylacrylamide): Relation between the chemical structure and the rheological properties. Macromolecular Chemistry and Physics, 2000, 201, 858-868.	2.2	47
21	Large strain behaviour of nanostructured polyelectrolyte hydrogels. Polymer, 2009, 50, 481-490.	3.8	47
22	Thermoassociative Graft Copolymers:Â NMR Investigation and Comparison with Rheological Behaviour. Journal of Physical Chemistry B, 2000, 104, 9371-9377.	2.6	46
23	Effect of polymerâ€“particle interaction on the fracture toughness of silica filled hydrogels. Soft Matter, 2011, 7, 6578.	2.7	46
24	Hydrophilicityâ€Hydrophobicity Transformation, Thermoresponsive Morphomechanics, and Crack Multifurcation Revealed by AIEgens in Mechanically Strong Hydrogels. Advanced Materials, 2021, 33, e2101500.	21.0	46
25	Influence of topology of LCST-based graft copolymers on responsive assembling in aqueous media. Polymer, 2015, 60, 164-175.	3.8	43
26	Strain induced clustering in polyelectrolyte hydrogels. Soft Matter, 2008, 4, 1011.	2.7	41
27	Synthesis and characterization of PEPO grafted carboxymethyl guar and carboxymethyl tamarind as new thermo-associating polymers. Carbohydrate Polymers, 2015, 117, 331-338.	10.2	40
28	Underwater Adhesion of Multiresponsive Complex Coacervates. Advanced Materials Interfaces, 2020, 7, 1901785.	3.7	40
29	Dynamics of Hybrid Polyacrylamide Hydrogels Containing Silica Nanoparticles Studied by Dynamic Light Scattering. Macromolecules, 2013, 46, 4567-4574.	4.8	38
30	Synthesis and characterization of positively charged amphiphilic water soluble polymers based on poly(N -isopropylacrylamide). Polymer, 2001, 42, 6329-6337.	3.8	37
31	Hybrid thickeners in aqueous media. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2006, 278, 26-32.	4.7	37
32	Thermoresponsive Toughening in LCST-Type Hydrogels: Comparison between Semi-Interpenetrated and Grafted Networks. Macromolecules, 2016, 49, 9568-9577.	4.8	36
33	Solution properties of pectin polysaccharides II. Conformation and molecular size of high galacturonic acid content isolated pectin chains. Carbohydrate Polymers, 1991, 16, 113-135.	10.2	34
34	Recognitionâ€Mediated Hydrogel Swelling Controlled by Interaction with a Negative Thermoresponsive LCST Polymer. Angewandte Chemie - International Edition, 2016, 55, 13974-13978.	13.8	34
35	Thermally Induced Gelation of Poly(acrylamide) Grafted with Poly(N-isopropylacrylamide):Â A Small-Angle Neutron Scattering Study. Macromolecules, 2004, 37, 5682-5691.	4.8	33
36	pH/Temperature control of interpolymer complexation between poly(acrylic acid) and weak polybases in aqueous solutions. Polymer, 2012, 53, 379-385.	3.8	25

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37	Hydrogels with Dual Thermoresponsive Mechanical Performance. Macromolecular Rapid Communications, 2017, 38, 1700287.	3.9	24
38	Swelling of polyacrylamide gels with pendant poly(ethylene oxide) chains in water and in ionic surfactant solutions. Langmuir, 1993, 9, 3324-3326.	3.5	23
39	Enhancement of the Adhesive Properties by Optimizing the Water Content in PNIPAM-Functionalized Complex Coacervates. ACS Applied Polymer Materials, 2020, 2, 1722-1730.	4.4	23
40	Cold and Hot Gelling of Alginate-graft-PNIPAM: a Schizophrenic Behavior Induced by Potassium Salts. Biomacromolecules, 2018, 19, 576-587.	5.4	22
41	Hydrophobically Modified Poly(acrylic acid) Using 3-Pentadecylcyclohexylamine: Synthesis and Rheology. Macromolecular Chemistry and Physics, 2005, 206, 464-472.	2.2	21
42	Cyclodextrin Polymer Nanoassemblies: Strategies for Stability Improvement. Biomacromolecules, 2012, 13, 528-534.	5.4	21
43	Structure investigation of nanohybrid PDMA/silica hydrogels at rest and under uniaxial deformation. Soft Matter, 2015, 11, 5905-5917.	2.7	21
44	Coacervate-Based Underwater Adhesives in Physiological Conditions. ACS Applied Polymer Materials, 2020, 2, 3397-3410.	4.4	21
45	Molecular mechanism of abnormally large nonsoftening deformation in a tough hydrogel. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	21
46	Thermoresponsive Interpolyelectrolyte Complexation: Application to Macromolecular Assemblies. Macromolecules, 2011, 44, 8185-8194.	4.8	20
47	Structure of Surfaces and Interfaces of Poly(N,N-dimethylacrylamide) Hydrogels. Langmuir, 2012, 28, 12282-12287.	3.5	20
48	Dynamics of Hybrid Poly(acrylamide-co-N,N-dimethylacrylamide) Hydrogels Containing Silica Nanoparticles Studied by Dynamic Light Scattering. Macromolecules, 2013, 46, 5329-5336.	4.8	20
49	pHâ€Responsive Swelling of Poly(acrylic acid) Brushes Synthesized by the Grafting Onto Route. Macromolecular Chemistry and Physics, 2013, 214, 2882-2890.	2.2	20
50	Swelling of Poly(acrylamide) Gels with Pendant Poly(ethylene oxide) Chains in Solutions of Ionic Surfactant and Salt. Langmuir, 1998, 14, 777-782.	3.5	19
51	Equilibrium and Out-of-Equilibrium Adherence of Hydrogels against Polymer Brushes. Macromolecules, 2018, 51, 7556-7566.	4.8	18
52	Thermally Triggered Injectable Underwater Adhesives. Macromolecular Rapid Communications, 2020, 41, e1900653.	3.9	16
53	Solution properties of pectin polysaccharides â€" III: Molecular size of heterogeneous pectin chains. Calibration and application of SEC to pectin analysis. Carbohydrate Polymers, 1991, 16, 409-432.	10.2	15
54	Thermodynamic behavior of hydrophobically modified polyacrylamide containing random distribution of hydrophobes: Experimental and theoretical investigations. Polymer, 2013, 54, 2676-2689.	3.8	15

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55	Thermogelation in Aqueous Polymer Solutions. ACS Symposium Series, 2000, , 181-207.	0.5	14
56	Synthesis and Viscoelastic Properties of Hydrophobically Modified Hydrogels. Macromolecular Symposia, 2007, 256, 189-194.	0.7	14
57	Tuning the Interactions in Multiresponsive Complex Coacervate-Based Underwater Adhesives. International Journal of Molecular Sciences, 2020, 21, 100.	4.1	14
58	Synthesis and Characterization of Poly(acrylic acid) Brushes: â€œGraftingâ€Ontoâ€•Route. Macromolecular Chemistry and Physics, 2012, 213, 293-300.	2.2	13
59	From Molecular Electrostatic Interactions and Hydrogel Architecture to Macroscopic Underwater Adherence. Macromolecules, 2019, 52, 3852-3862.	4.8	13
60	Relaxation Dynamics and Underlying Mechanism of a Thermally Reversible Gel from Symmetric Triblock Copolymer. Macromolecules, 2019, 52, 8651-8661.	4.8	12
61	Topology-Specific Injectable Sticky Hydrogels. Macromolecules, 2020, 53, 9779-9792.	4.8	12
62	Responsive Adsorption of N-Isopropylacrylamide Based Copolymers on Polymer Brushes. Polymers, 2020, 12, 153.	4.5	12
63	Synthesis and self-assembling properties of Î±,Ï‰-hydroxy-poly(ethylene oxide) end-capped with 1-isocyanato-3-pentadecylcyclohexane. Polymer, 2008, 49, 4635-4646.	3.8	11
64	Supramolecular polymer hydrogels induced by hostâ€“guest interactions with di-[cyclobis(paraquat-p-phenylene)] cross-linkers: from molecular complexation to viscoelastic properties. Soft Matter, 2017, 13, 5269-5282.	2.7	10
65	Synthesis and self assembly processes of aqueous thermoresponsive hybrid formulations. Soft Matter, 2010, 6, 2178.	2.7	9
66	Probing pH-Responsive Interactions between Polymer Brushes and Hydrogels by Neutron Reflectivity. Langmuir, 2014, 30, 9700-9706.	3.5	8
67	Effect of responsive graft length on mechanical toughening and transparency in microphase-separated hydrogels. Soft Matter, 2019, 15, 8653-8666.	2.7	8
68	Dual Responsive Regulation of Hostâ€“Guest Complexation in Aqueous Media to Control Partial Release of the Host. Chemistry - A European Journal, 2020, 26, 1292-1297.	3.3	8
69	Hybrid Complex Coacervate. Polymers, 2020, 12, 320.	4.5	8
70	Design and Viscoelastic Properties of <scp>PDMA</scp>/<scp>S</scp>ilica Assemblies in Aqueous Media. Macromolecular Symposia, 2014, 337, 58-73.	0.7	6
71	Supramolecular Hydrogels with Tunable Swelling by Host Complexation with Cyclobis(paraquat-p-phenylene). Macromolecules, 2021, 54, 1926-1933.	4.8	4
72	Hydrophobic Hydrogels: Hydrophobic Hydrogels with Fruitâ€Like Structure and Functions (Adv. Mater.) Tj ETQq0 0 0 rgBT /Overlock 10	21.0	3

#	Article	IF	Citations
73	pH- and Thermo-responsive Polymer Assemblies in Aqueous Solution. , 2010, , 19-22.		1
74	Mechanism insights in controlling hostâ€“guest (de)complexation by thermoresponsive polymer phase transitions. Polymer Chemistry, 0, , .	3.9	1
75	Complex Coacervation: Underwater Adhesion of Multiresponsive Complex Coacervates (Adv. Mater.) Tj ETQq1 1 0.784314 rgBT /Over	3.7	0