

Jian Ping Gong

List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

423
papers

24,762
citations

74
h-index

145
g-index

449
ext. papers

28,072
ext. citations

6.9
avg, IF

7.46
L-index

#	Paper	IF	Citations
4 ²³	Unique crack propagation of double network hydrogels under high stretch. <i>Extreme Mechanics Letters</i> , 2022 , 51, 101588	3.9	1
4 ²²	Facile preparation of cellulose hydrogel with Achilles tendon-like super strength through aligning hierarchical fibrous structure. <i>Chemical Engineering Journal</i> , 2022 , 428, 132040	14.7	5
4 ²¹	Role of dynamic bonds on fatigue threshold of tough hydrogels.. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022 , 119, e2200678119	11.5	1
4 ²⁰	How chain dynamics affects crack initiation in double-network gels. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	4
4 ¹⁹	Toughening hydrogels through force-triggered chemical reactions that lengthen polymer strands. <i>Science</i> , 2021 , 374, 193-196	33.3	22
4 ¹⁸	Rapid reprogramming of tumour cells into cancer stem cells on double-network hydrogels. <i>Nature Biomedical Engineering</i> , 2021 , 5, 914-925	19	17
4 ¹⁷	Molecular mechanism of abnormally large nonsoftening deformation in a tough hydrogel. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	10
4 ¹⁶	Effect of mesoscale phase contrast on fatigue-delaying behavior of self-healing hydrogels. <i>Science Advances</i> , 2021 , 7,	14.3	16
4 ¹⁵	Experimental Verification of the Balance between Elastic Pressure and Ionic Osmotic Pressure of Highly Swollen Charged Gels. <i>Gels</i> , 2021 , 7,	4.2	3
4 ¹⁴	Nanophase Separation in Immiscible Double Network Elastomers Induces Synergetic Strengthening, Toughening, and Fatigue Resistance. <i>Chemistry of Materials</i> , 2021 , 33, 3321-3334	9.6	13
4 ¹³	Hierarchical toughening: A step toward matching the complexity of biological materials. <i>Chem</i> , 2021 , 7, 1153-1155	16.2	1
4 ¹²	Flower-like Photonic Hydrogel with Superstructure Induced via Modulated Shear Field.. <i>ACS Macro Letters</i> , 2021 , 10, 708-713	6.6	2
4 ¹¹	Quantitative evaluation of macromolecular crowding environment based on translational and rotational diffusion using polarization dependent fluorescence correlation spectroscopy. <i>Scientific Reports</i> , 2021 , 11, 10594	4.9	5
4 ¹⁰	Tough Double Network Hydrogel and Its Biomedical Applications. <i>Annual Review of Chemical and Biomolecular Engineering</i> , 2021 , 12, 393-410	8.9	17
4 ⁰⁹	Improving the strength and toughness of macroscale double networks by exploiting Poisson's ratio mismatch. <i>Scientific Reports</i> , 2021 , 11, 13280	4.9	4
4 ⁰⁸	Ultrapurified Alginate Gel Containing Bone Marrow Aspirate Concentrate Enhances Cartilage and Bone Regeneration on Osteochondral Defects in a Rabbit Model. <i>American Journal of Sports Medicine</i> , 2021 , 49, 2199-2210	6.8	0
4 ⁰⁷	Synthetic poly(2-acrylamido-2-methylpropanesulfonic acid) gel induces chondrogenic differentiation of ATDC5 cells via a novel protein reservoir function. <i>Journal of Biomedical Materials Research - Part A</i> , 2021 , 109, 354-364	5.4	0

406	The Fracture of Highly Deformable Soft Materials: A Tale of Two Length Scales. <i>Annual Review of Condensed Matter Physics</i> , 2021 , 12, 71-94	19.7	39
405	Micromechanical modeling of the multi-axial deformation behavior in double network hydrogels. <i>International Journal of Plasticity</i> , 2021 , 137, 102901	7.6	15
404	Isotope Microscopic Observation of Osteogenesis Process Forming Robust Bonding of Double Network Hydrogel to Bone. <i>Advanced Healthcare Materials</i> , 2021 , 10, e2001731	10.1	2
403	Constitutive modeling of strain-dependent bond breaking and healing kinetics of chemical polyampholyte (PA) gel. <i>Soft Matter</i> , 2021 , 17, 4161-4169	3.6	2
402	Constitutive modeling of bond breaking and healing kinetics of physical Polyampholyte (PA) gel. <i>Extreme Mechanics Letters</i> , 2021 , 43, 101184	3.9	5
401	Aggregated structures and their functionalities in hydrogels. <i>Aggregate</i> , 2021 , 2, e33	22.9	15
400	Ultrahigh-Water-Content Photonic Hydrogels with Large Electro-Optic Responses in Visible to Near-Infrared Region. <i>Advanced Optical Materials</i> , 2021 , 9, 2002198	8.1	2
399	Facile tuning of hydrogel properties by manipulating cationic-aromatic monomer sequences. <i>Science China Chemistry</i> , 2021 , 64, 1560-1568	7.9	2
398	Bioinspired Underwater Adhesives. <i>Advanced Materials</i> , 2021 , 33, e2102983	24	34
397	Fast in vivo fixation of double network hydrogel to bone by monetite surface hybridization. <i>Journal of the Ceramic Society of Japan</i> , 2021 , 129, 584-589	1	1
396	Tiny yet tough: Maximizing the toughness of fiber-reinforced soft composites in the absence of a fiber-fracture mechanism. <i>Matter</i> , 2021 ,	12.7	2
395	A surface flattening method for characterizing the surface stress, drained Poisson's ratio and diffusivity of poroelastic gels. <i>Soft Matter</i> , 2021 , 17, 7332-7340	3.6	2
394	Barnacle Cement Proteins-Inspired Tough Hydrogels with Robust, Long-Lasting, and Repeatable Underwater Adhesion. <i>Advanced Functional Materials</i> , 2021 , 31, 2009334	15.6	58
393	In Situ Evaluation of the Polymer Concentration Distribution of Microphase-Separated Polyelectrolyte Hydrogels by the Microelectrode Technique. <i>Macromolecules</i> , 2021 , 54, 10776-10785	5.5	1
392	How surface stress transforms surface profiles and adhesion of rough elastic bodies. <i>Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences</i> , 2020 , 476, 20200477	2.4	3
391	Anisotropic Double-Network Hydrogels via Controlled Orientation of a Physical Sacrificial Network. <i>ACS Applied Polymer Materials</i> , 2020 , 2, 2350-2358	4.3	11
390	Double-network gels as polyelectrolyte gels with salt-insensitive swelling properties. <i>Soft Matter</i> , 2020 , 16, 5487-5496	3.6	4
389	Hydrogels toughened by biominerals providing energy-dissipative sacrificial bonds. <i>Journal of Materials Chemistry B</i> , 2020 , 8, 5184-5188	7.3	16

388	Integrin $\alpha 4$ mediates ATDC5 cell adhesion to negatively charged synthetic polymer hydrogel leading to chondrogenic differentiation. <i>Biochemical and Biophysical Research Communications</i> , 2020 , 528, 120-126	3.4	2
387	Lamellar Bilayer to Fibril Structure Transformation of Tough Photonic Hydrogel under Elongation. <i>Macromolecules</i> , 2020 , 53, 4711-4721	5.5	4
386	Mesoscale bicontinuous networks in self-healing hydrogels delay fatigue fracture. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 7606-7612	11.5	48
385	Fabrication of Bioinspired Hydrogels: Challenges and Opportunities. <i>Macromolecules</i> , 2020 , 53, 2769-2782	3.5	97
384	Fiber-Reinforced Viscoelastomers Show Extraordinary Crack Resistance That Exceeds Metals. <i>Advanced Materials</i> , 2020 , 32, e1907180	24	35
383	Phase Separation Behavior in Tough and Self-Healing Polyampholyte Hydrogels. <i>Macromolecules</i> , 2020 , 53, 5116-5126	5.5	25
382	Non-linear rheological study of hydrogel sliding friction in water and concentrated hyaluronan solution. <i>Tribology International</i> , 2020 , 147, 106270	4.9	3
381	Mechanical behavior of unidirectional fiber reinforced soft composites. <i>Extreme Mechanics Letters</i> , 2020 , 35, 100642	3.9	7
380	Effect of Relative Strength of Two Networks on the Internal Fracture Process of Double Network Hydrogels As Revealed by in Situ Small-Angle X-ray Scattering. <i>Macromolecules</i> , 2020 , 53, 1154-1163	5.5	27
379	Competitive cation π interactions between small cations and polycations with phenyl groups in poly(cation π)hydrogels. <i>Giant</i> , 2020 , 1, 100005	5.6	8
378	Instant Thermal Switching from Soft Hydrogel to Rigid Plastics Inspired by Thermophile Proteins. <i>Advanced Materials</i> , 2020 , 32, e1905878	24	50
377	Crack Tip Field of a Double-Network Gel: Visualization of Covalent Bond Scission through Mechanoradical Polymerization. <i>Macromolecules</i> , 2020 , 53, 8787-8795	5.5	29
376	Polyzwitterions as a Versatile Building Block of Tough Hydrogels: From Polyelectrolyte Complex Gels to Double-Network Gels. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 50068-50076	9.5	11
375	Stress Relaxation and Underlying Structure Evolution in Tough and Self-Healing Hydrogels. <i>ACS Macro Letters</i> , 2020 , 9, 1582-1589	6.6	15
374	Bactericidal effect of cationic hydrogels prepared from hydrophilic polymers. <i>Journal of Applied Polymer Science</i> , 2020 , 137, 49583	2.9	2
373	Effect of the constituent networks of double-network gels on their mechanical properties and energy dissipation process. <i>Soft Matter</i> , 2020 , 16, 8618-8627	3.6	7
372	Hydrogels as dynamic memory with forgetting ability. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 18962-18968	11.5	37
371	Preparation of Tough Double- and Triple-Network Supermacroporous Hydrogels through Repeated Cryogelation. <i>Chemistry of Materials</i> , 2020 , 32, 8576-8586	9.6	20

370	Chitin-Based Double-Network Hydrogel as Potential Superficial Soft-Tissue-Repairing Materials. <i>Biomacromolecules</i> , 2020 , 21, 4220-4230	6.9	10
369	High-Fidelity Hydrogel Thin Films Processed from Deep Eutectic Solvents. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 43191-43200	9.5	4
368	Modulation and Characterization of the Double Network Hydrogel Surface-Bulk Transition. <i>Macromolecules</i> , 2019 , 52, 6704-6713	5.5	11
367	Macroscale Double Networks: Design Criteria for Optimizing Strength and Toughness. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 35343-35353	9.5	33
366	Internal Damage Evolution in Double-Network Hydrogels Studied by Microelectrode Technique. <i>Macromolecules</i> , 2019 , 52, 7114-7122	5.5	6
365	Fabrication of Tough Hydrogel Composites from Photoresponsive Polymers to Show Double-Network Effect. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 37139-37146	9.5	14
364	Effect of Structure Heterogeneity on Mechanical Performance of Physical Polyampholytes Hydrogels. <i>Macromolecules</i> , 2019 , 52, 7369-7378	5.5	28
363	Shearing-induced contact pattern formation in hydrogels sliding in polymer solution. <i>Soft Matter</i> , 2019 , 15, 1953-1959	3.6	1
362	Mechanoresponsive self-growing hydrogels inspired by muscle training. <i>Science</i> , 2019 , 363, 504-508	33.3	299
361	Facile synthesis of novel elastomers with tunable dynamics for toughness, self-healing and adhesion. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 17334-17344	13	37
360	Hydrophobic Hydrogels with Fruit-Like Structure and Functions. <i>Advanced Materials</i> , 2019 , 31, e190070224		39
359	Fabrication of Tough and Stretchable Hybrid Double-Network Elastomers Using Ionic Dissociation of Polyelectrolyte in Nonaqueous Media. <i>Chemistry of Materials</i> , 2019 , 31, 3766-3776	9.6	60
358	Superior fracture resistance of fiber reinforced polyampholyte hydrogels achieved by extraordinarily large energy-dissipative process zones. <i>Journal of Materials Chemistry A</i> , 2019 , 7, 13431-13440	13.4	26
357	Damage cross-effect and anisotropy in tough double network hydrogels revealed by biaxial stretching. <i>Soft Matter</i> , 2019 , 15, 3719-3732	3.6	10
356	Tough double network elastomers reinforced by the amorphous cellulose network. <i>Polymer</i> , 2019 , 178, 121686	3.9	15
355	Polyelectrolyte complexation via viscoelastic phase separation results in tough and self-recovering porous hydrogels. <i>Journal of Materials Chemistry B</i> , 2019 , 7, 5296-5305	7.3	17
354	Hydrogel/Elastomer Laminates Bonded via Fabric Interphases for Stimuli-Responsive Actuators. <i>Matter</i> , 2019 , 1, 674-689	12.7	45
353	Double network hydrogels based on semi-rigid polyelectrolyte physical networks. <i>Journal of Materials Chemistry B</i> , 2019 , 7, 6347-6354	7.3	18

352	A Multiaxial Theory of Double Network Hydrogels. <i>Macromolecules</i> , 2019 , 52, 5937-5947	5.5	15
351	Programmed Diffusion Induces Anisotropic Superstructures in Hydrogels with High Mechano-Optical Sensitivity. <i>Advanced Materials Technologies</i> , 2019 , 4, 1900665	6.8	8
350	Tough Double-Network Gels and Elastomers from the Nonprestretched First Network. <i>ACS Macro Letters</i> , 2019 , 8, 1407-1412	6.6	23
349	Relaxation Dynamics and Underlying Mechanism of a Thermally Reversible Gel from Symmetric Triblock Copolymer. <i>Macromolecules</i> , 2019 , 52, 8651-8661	5.5	11
348	Adjacent cationic-aromatic sequences yield strong electrostatic adhesion of hydrogels in seawater. <i>Nature Communications</i> , 2019 , 10, 5127	17.4	106
347	Toughening Mechanism of Double Network Gels and New Research Trends. <i>Nippon Gomu Kyokaishi</i> , 2019 , 92, 352-356	0	
346	Osteochondral Autograft Transplantation Technique Augmented by an Ultrapurified Alginate Gel Enhances Osteochondral Repair in a Rabbit Model. <i>American Journal of Sports Medicine</i> , 2019 , 47, 468-478	6.8	6
345	Fracture Process of Double-Network Gels by Coarse-Grained Molecular Dynamics Simulation. <i>Macromolecules</i> , 2018 , 51, 3075-3087	5.5	23
344	A Facile Method to Fabricate Anisotropic Hydrogels with Perfectly Aligned Hierarchical Fibrous Structures. <i>Advanced Materials</i> , 2018 , 30, 1704937	24	149
343	Tough and Variable-Band-Gap Photonic Hydrogel Displaying Programmable Angle-Dependent Colors. <i>ACS Omega</i> , 2018 , 3, 55-62	3.9	10
342	Creating Stiff, Tough, and Functional Hydrogel Composites with Low-Melting-Point Alloys. <i>Advanced Materials</i> , 2018 , 30, e1706885	24	63
341	Distinctive Characteristics of Internal Fracture in Tough Double Network Hydrogels Revealed by Various Modes of Stretching. <i>Macromolecules</i> , 2018 , 51, 5245-5257	5.5	22
340	Tough and Self-Recoverable Thin Hydrogel Membranes for Biological Applications. <i>Advanced Functional Materials</i> , 2018 , 28, 1801489	15.6	31
339	Network elasticity of a model hydrogel as a function of swelling ratio: from shrinking to extreme swelling states. <i>Soft Matter</i> , 2018 , 14, 9693-9701	3.6	41
338	Double Network Gels: Tough Particle-Based Double Network Hydrogels for Functional Solid Surface Coatings (Adv. Mater. Interfaces 23/2018). <i>Advanced Materials Interfaces</i> , 2018 , 5, 1870118	4.6	2
337	Micro patterning of hydroxyapatite by soft lithography on hydrogels for selective osteoconduction. <i>Acta Biomaterialia</i> , 2018 , 81, 60-69	10.8	15
336	How Supertough Gels Break. <i>Physical Review Letters</i> , 2018 , 121, 135501	7.4	12
335	Tough Particle-Based Double Network Hydrogels for Functional Solid Surface Coatings. <i>Advanced Materials Interfaces</i> , 2018 , 5, 1801018	4.6	46

334	Elastic-Plastic Transformation of Polyelectrolyte Complex Hydrogels from Chitosan and Sodium Hyaluronate. <i>Macromolecules</i> , 2018 , 51, 8887-8898	5.5	14
333	Multiscale Energy Dissipation Mechanism in Tough and Self-Healing Hydrogels. <i>Physical Review Letters</i> , 2018 , 121, 185501	7.4	63
332	Tough Hydrogels with Fast, Strong, and Reversible Underwater Adhesion Based on a Multiscale Design. <i>Advanced Materials</i> , 2018 , 30, e1801884	24	154
331	Energy-Dissipative Matrices Enable Synergistic Toughening in Fiber Reinforced Soft Composites. <i>Advanced Functional Materials</i> , 2017 , 27, 1605350	15.6	84
330	Supramolecular hydrogels with multi-cylindrical lamellar bilayers: Swelling-induced contraction and anisotropic molecular diffusion. <i>Polymer</i> , 2017 , 128, 373-378	3.9	10
329	Tough polyion-complex hydrogels from soft to stiff controlled by monomer structure. <i>Polymer</i> , 2017 , 116, 487-497	3.9	29
328	Anisotropic tough double network hydrogel from fish collagen and its spontaneous in vivo bonding to bone. <i>Biomaterials</i> , 2017 , 132, 85-95	15.6	81
327	Bulk Energy Dissipation Mechanism for the Fracture of Tough and Self-Healing Hydrogels. <i>Macromolecules</i> , 2017 , 50, 2923-2931	5.5	76
326	Anisotropic Growth of Hydroxyapatite in Stretched Double Network Hydrogel. <i>ACS Nano</i> , 2017 , 11, 12108-12115	16.1	135
325	Water-Triggered Ductile-Brittle Transition of Anisotropic Lamellar Hydrogels and Effect of Confinement on Polymer Dynamics. <i>Macromolecules</i> , 2017 , 50, 8169-8177	5.5	19
324	Stimuli-Responsive Transformation of a Gradient Gel. <i>Kobunshi Ronbunshu</i> , 2017 , 74, 311-318	0	0
323	Tough, self-recovery and self-healing polyampholyte hydrogels. <i>Polymer Science - Series C</i> , 2017 , 59, 11-17	1	8
322	Inorganic/Organic Double-Network Gels Containing Ionic Liquids. <i>Advanced Materials</i> , 2017 , 29, 1704118	24	105
321	Effects of osteochondral defect size on cartilage regeneration using a double-network hydrogel. <i>BMC Musculoskeletal Disorders</i> , 2017 , 18, 210	2.8	14
320	Hydroxyapatite-coated double network hydrogel directly bondable to the bone: Biological and biomechanical evaluations of the bonding property in an osteochondral defect. <i>Acta Biomaterialia</i> , 2016 , 44, 125-34	10.8	30
319	Fundamental biomaterial properties of tough glycosaminoglycan-containing double network hydrogels newly developed using the molecular stent method. <i>Acta Biomaterialia</i> , 2016 , 43, 38-49	10.8	18
318	Tough Bacterial Nanocellulose Hydrogels Based on the Double-Network Technique 2016 , 73-89		1
317	Synthetic PAMPS gel activates BMP/Smad signaling pathway in ATDC5 cells, which plays a significant role in the gel-induced chondrogenic differentiation. <i>Journal of Biomedical Materials Research - Part A</i> , 2016 , 104, 734-746	5.4	9

316	Quantitative Observation of Electric Potential Distribution of Brittle Polyelectrolyte Hydrogels Using Microelectrode Technique. <i>Macromolecules</i> , 2016 , 49, 3100-3108	5.5	25
315	Decoupling dual-stimuli responses in patterned lamellar hydrogels as photonic sensors. <i>Journal of Materials Chemistry B</i> , 2016 , 4, 4104-4109	7.3	26
314	In vivo cartilage regeneration induced by a double-network hydrogel: Evaluation of a novel therapeutic strategy for femoral articular cartilage defects in a sheep model. <i>Journal of Biomedical Materials Research - Part A</i> , 2016 , 104, 2159-65	5.4	16
313	Tough Physical Double-Network Hydrogels Based on Amphiphilic Triblock Copolymers. <i>Advanced Materials</i> , 2016 , 28, 4884-90	24	328
312	Yielding Criteria of Double Network Hydrogels. <i>Macromolecules</i> , 2016 , 49, 1865-1872	5.5	95
311	Molecular structure and properties of click hydrogels with controlled dangling end defect. <i>Journal of Polymer Science, Part B: Polymer Physics</i> , 2016 , 54, 1227-1236	2.6	8
310	Double-Network Hydrogels Strongly Bondable to Bones by Spontaneous Osteogenesis Penetration. <i>Advanced Materials</i> , 2016 , 28, 6740-5	24	174
309	Sensing surface mechanical deformation using active probes driven by motor proteins. <i>Nature Communications</i> , 2016 , 7, 12557	17.4	39
308	Strong and Tough Polyion-Complex Hydrogels from Oppositely Charged Polyelectrolytes: A Comparative Study with Polyampholyte Hydrogels. <i>Macromolecules</i> , 2016 , 49, 2750-2760	5.5	73
307	Self-Healing Behaviors of Tough Polyampholyte Hydrogels. <i>Macromolecules</i> , 2016 , 49, 4245-4252	5.5	151
306	Coupled instabilities of surface crease and bulk bending during fast free swelling of hydrogels. <i>Soft Matter</i> , 2016 , 12, 5081-8	3.6	16
305	Stretching-induced ion complexation in physical polyampholyte hydrogels. <i>Soft Matter</i> , 2016 , 12, 8833-8840	3.6	34
304	Creep Behavior and Delayed Fracture of Tough Polyampholyte Hydrogels by Tensile Test. <i>Macromolecules</i> , 2016 , 49, 5630-5636	5.5	30
303	Polymer Adsorbed Bilayer Membranes Form Self-Healing Hydrogels with Tunable Superstructure. <i>Macromolecules</i> , 2015 , 48, 2277-2282	5.5	23
302	Oppositely charged polyelectrolytes form tough, self-healing, and rebuildable hydrogels. <i>Advanced Materials</i> , 2015 , 27, 2722-7	24	439
301	Tunable one-dimensional photonic crystals from soft materials. <i>Journal of Photochemistry and Photobiology C: Photochemistry Reviews</i> , 2015 , 23, 45-67	16.4	62
300	Molecular structure of self-healing polyampholyte hydrogels analyzed from tensile behaviors. <i>Soft Matter</i> , 2015 , 11, 9355-66	3.6	78
299	Extremely tough composites from fabric reinforced polyampholyte hydrogels. <i>Materials Horizons</i> , 2015 , 2, 584-591	14.4	85

298	Swim bladder collagen forms hydrogel with macroscopic superstructure by diffusion induced fast gelation. <i>Journal of Materials Chemistry B</i> , 2015 , 3, 7658-7666	7.3	20
297	Free Reprocessability of Tough and Self-Healing Hydrogels Based on Polyion Complex. <i>ACS Macro Letters</i> , 2015 , 4, 961-964	6.6	72
296	Hydrogels as feeder-free scaffolds for long-term self-renewal of mouse induced pluripotent stem cells. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2015 , 9, 375-88	4.4	11
295	Friction of Zwitterionic Hydrogel by Dynamic Polymer Adsorption. <i>Macromolecules</i> , 2015 , 48, 5394-5401	5.5	8
294	Phase-Separation-Induced Anomalous Stiffening, Toughening, and Self-Healing of Polyacrylamide Gels. <i>Advanced Materials</i> , 2015 , 27, 6990-8	24	93
293	Self-Adjustable Adhesion of Polyampholyte Hydrogels. <i>Advanced Materials</i> , 2015 , 27, 7344-8	24	127
292	Anisotropic Gelation Induced by Very Little Amount of Filamentous Actin. <i>Macromolecular Chemistry and Physics</i> , 2015 , 216, 2007-2011	2.6	2
291	Drag force on micron-sized objects with different surface morphologies in a flow with a small Reynolds number. <i>Polymer Journal</i> , 2015 , 47, 564-570	2.7	5
290	Double-network hydrogel and its potential biomedical application: A review. <i>Proceedings of the Institution of Mechanical Engineers, Part H: Journal of Engineering in Medicine</i> , 2015 , 229, 853-63	1.7	51
289	Quasi-unidirectional shrinkage of gels with well-oriented lipid bilayers upon uniaxial stretching. <i>Soft Matter</i> , 2015 , 11, 237-40	3.6	11
288	In Vitro Platelet Adhesion of PNaAMPS/PAAm and PNaAMPS/PDMAAm Double-Network Hydrogels. <i>Macromolecular Chemistry and Physics</i> , 2015 , 216, 641-649	2.6	17
287	Materials science. Materials both tough and soft. <i>Science</i> , 2014 , 344, 161-2	33.3	253
286	Polyelectrolyte hydrogels for replacement and regeneration of biological tissues. <i>Macromolecular Research</i> , 2014 , 22, 227-235	1.9	29
285	Proteoglycans and glycosaminoglycans improve toughness of biocompatible double network hydrogels. <i>Advanced Materials</i> , 2014 , 26, 436-42	24	127
284	Brittle-ductile transition of double network hydrogels: Mechanical balance of two networks as the key factor. <i>Polymer</i> , 2014 , 55, 914-923	3.9	92
283	Solvent and Ca ²⁺ triggered robust and fast stress generation by ultrathin triple-network hydrogels. <i>Extreme Mechanics Letters</i> , 2014 , 1, 17-22	3.9	
282	Fracture Process of Microgel-Reinforced Hydrogels under Uniaxial Tension. <i>Macromolecules</i> , 2014 , 47, 3587-3594	5.5	45
281	Friction of hydrogels with controlled surface roughness on solid flat substrates. <i>Soft Matter</i> , 2014 , 10, 3192-9	3.6	43

280	In Situ Observation of Ca ²⁺ Diffusion-Induced Superstructure Formation of a Rigid Polyanion. <i>Macromolecules</i> , 2014 , 47, 7208-7214	5.5	15
279	In situ observation of a hydrogel-glass interface during sliding friction. <i>Soft Matter</i> , 2014 , 10, 5589-96	3.6	19
278	Control superstructure of rigid polyelectrolytes in oppositely charged hydrogels via programmed internal stress. <i>Nature Communications</i> , 2014 , 5, 4490	17.4	55
277	Sliding Friction of Zwitterionic Hydrogel and Its Electrostatic Origin. <i>Macromolecules</i> , 2014 , 47, 3101-3107	3.5	32
276	Crack Blunting and Advancing Behaviors of Tough and Self-healing Polyampholyte Hydrogel. <i>Macromolecules</i> , 2014 , 47, 6037-6046	5.5	99
275	Significant increase in Young's modulus of ATDC5 cells during chondrogenic differentiation induced by PAMPS/PDMAAm double-network gel: comparison with induction by insulin. <i>Journal of Biomechanics</i> , 2014 , 47, 3408-14	2.9	5
274	Hydrogel Friction and Lubrication 2014 , 145-181		
273	Prolonged morphometric study of barnacles grown on soft substrata of hydrogels and elastomers. <i>Biofouling</i> , 2014 , 30, 271-9	3.3	10
272	Mechano-actuated ultrafast full-colour switching in layered photonic hydrogels. <i>Nature Communications</i> , 2014 , 5, 4659	17.4	165
271	ATP-Driven Bio-machine 2014 , 475-487		
270	Intra-articular administration of hyaluronic acid increases the volume of the hyaline cartilage regenerated in a large osteochondral defect by implantation of a double-network gel. <i>Journal of Materials Science: Materials in Medicine</i> , 2014 , 25, 1173-82	4.5	13
269	Physical hydrogels composed of polyampholytes demonstrate high toughness and viscoelasticity. <i>Nature Materials</i> , 2013 , 12, 932-7	27	1264
268	Double-Network Strategy Improves Fracture Properties of Chondroitin Sulfate Networks.. <i>ACS Macro Letters</i> , 2013 , 2, 137-140	6.6	86
267	A phase diagram of neutral polyampholyte - from solution to tough hydrogel. <i>Journal of Materials Chemistry B</i> , 2013 , 1, 4555-4562	7.3	62
266	Hyaluronic acid affects the in vitro induction effects of synthetic PAMPS and PDMAAm hydrogels on chondrogenic differentiation of ATDC5 cells, depending on the level of concentration. <i>BMC Musculoskeletal Disorders</i> , 2013 , 14, 56	2.8	8
265	Influence of the gel thickness on in vivo hyaline cartilage regeneration induced by double-network gel implanted at the bottom of a large osteochondral defect: short-term results. <i>BMC Musculoskeletal Disorders</i> , 2013 , 14, 50	2.8	10
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