

Jasper van der Gucht

List of Publications by Year in Descending Order

Source: <https://exaly.com/author-pdf/251402/jasper-van-der-gucht-publications-by-year.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

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

132
papers

4,567
citations

38
h-index

63
g-index

137
ext. papers

5,112
ext. citations

6
avg, IF

5.67
L-index

#	Paper	IF	Citations
132	Quantifying bond rupture during indentation fracture of soft polymer networks using molecular mechanophores. <i>Physical Review Materials</i> , 2022 , 6,	3.2	1
131	Stretchy and disordered: Toward understanding fracture in soft network materials via mesoscopic computer simulations.. <i>Journal of Chemical Physics</i> , 2022 , 156, 160901	3.9	1
130	A comparison of complexation induced brittleness in PEI/PSS and PEI/NaPSS single-step coatings. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2022 , 648, 129143	5.1	0
129	Single-Step Application of Polyelectrolyte Complex Films as Oxygen Barrier Coatings. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 21844-21853	9.5	6
128	A slicing mechanism facilitates host entry by plant-pathogenic Phytophthora. <i>Nature Microbiology</i> , 2021 , 6, 1000-1006	26.6	5
127	Long-term single-cell imaging and simulations of microtubules reveal principles behind wall patterning during proto-xylem development. <i>Nature Communications</i> , 2021 , 12, 669	17.4	8
126	Characterization of the local mechanical texture of animal meat and meat replacements using multi-point indentation. <i>Journal of Food Engineering</i> , 2021 , 300, 110505	6	3
125	Core-Shell Microcapsules from Unpurified Legume Flours. <i>ACS Applied Materials & Interfaces</i> , 2021 , 13, 37598-37608	9.5	2
124	Sharing the Load: Stress Redistribution Governs Fracture of Polymer Double Networks. <i>Macromolecules</i> , 2021 , 54, 8563-8574	5.5	5
123	Nonlocal effects in the shear banding of a thixotropic yield stress fluid. <i>Physical Review Fluids</i> , 2021 , 6,	2.8	1
122	Connectivity and plasticity determine collagen network fracture. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 8326-8334	11.5	22
121	Encapsulation Using Plant Proteins: Thermodynamics and Kinetics of Wetting for Simple Zein Coacervates. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 15802-15809	9.5	8
120	Hybrid Complex Coacervate. <i>Polymers</i> , 2020 , 12,	4.5	7
119	Underwater Adhesion of Multiresponsive Complex Coacervates. <i>Advanced Materials Interfaces</i> , 2020 , 7, 1901785	4.6	25
118	Complex Coacervation: Underwater Adhesion of Multiresponsive Complex Coacervates (Adv. Mater. Interfaces 4/2020). <i>Advanced Materials Interfaces</i> , 2020 , 7, 2070022	4.6	
117	Athermal Fracture of Elastic Networks: How Rigidity Challenges the Unavoidable Size-Induced Brittleness. <i>Physical Review Letters</i> , 2020 , 124, 018002	7.4	9
116	Enhancement of the Adhesive Properties by Optimizing the Water Content in PNIPAM-Functionalized Complex Coacervates. <i>ACS Applied Polymer Materials</i> , 2020 , 2, 1722-1730	4.3	11

115	Microscopic insights into the failure of elastic double networks. <i>Physical Review Materials</i> , 2020 , 4,	3.2	5
114	Temperature-responsive polyelectrolyte complexes for bio-inspired underwater adhesives. <i>European Polymer Journal</i> , 2020 , 141, 110034	5.2	8
113	The role of temperature in the rigidity-controlled fracture of elastic networks. <i>Soft Matter</i> , 2020 , 16, 9975-9985	3.6	2
112	Cephalopod-Inspired High Dynamic Range Mechano-Imaging in Polymeric Materials. <i>Advanced Functional Materials</i> , 2020 , 30, 2002716	15.6	15
111	Propagation and attenuation of mechanical signals in ultrasoft 2D solids. <i>Science Advances</i> , 2020 , 6,	14.3	1
110	Particle Dynamics in Colloid-Polymer Mixtures with Different Polymer Architectures. <i>ACS Applied Materials & Interfaces</i> , 2020 , 12, 42041-42047	9.5	0
109	Syneresis of Colloidal Gels: Endogenous Stress and Interfacial Mobility Drive Compaction. <i>Physical Review Letters</i> , 2020 , 125, 208004	7.4	8
108	Fourier transforms for fast and quantitative Laser Speckle Imaging. <i>Scientific Reports</i> , 2019 , 9, 13279	4.9	2
107	Mechanics of composite hydrogels approaching phase separation. <i>PLoS ONE</i> , 2019 , 14, e0211059	3.7	8
106	Development of a multi-position indentation setup: Mapping soft and patternable heterogeneously crosslinked polymer networks. <i>Review of Scientific Instruments</i> , 2019 , 90, 015108	1.7	5
105	Slippery paints: Eco-friendly coatings that cause ants to slip. <i>Progress in Organic Coatings</i> , 2019 , 135, 331-344	4.8	6
104	Coatings preventing insect adhesion: An overview. <i>Progress in Organic Coatings</i> , 2019 , 134, 349-359	4.8	9
103	Self-assembly of oppositely charged polyelectrolyte block copolymers containing short thermoresponsive blocks.. <i>Polymer Chemistry</i> , 2019 , 10, 3127-3134	4.9	15
102	Coarse-Grained Dendrimers in a Good Solvent: Comparison of Monte Carlo Simulations, Self-Consistent Field Theory, and a Hybrid Modeling Strategy. <i>Macromolecular Theory and Simulations</i> , 2019 , 28, 1800064	1.5	1
101	Thermoresponsive Complex Coacervate-Based Underwater Adhesive. <i>Advanced Materials</i> , 2019 , 31, e1802179	11.79	79
100	Tuning the Interactions in Multiresponsive Complex Coacervate-Based Underwater Adhesives. <i>International Journal of Molecular Sciences</i> , 2019 , 21,	6.3	12
99	Plasticity in colloidal gel strands. <i>Soft Matter</i> , 2019 , 15, 6447-6454	3.6	7
98	Stress management in composite biopolymer networks. <i>Nature Physics</i> , 2019 , 15, 549-553	16.2	35

97	Gravity-driven syneresis in model low-fat mayonnaise. <i>Soft Matter</i> , 2019 , 15, 9474-9481	3.6	
96	Hydrodynamically Coupled Brownian Dynamics: A coarse-grain particle-based Brownian dynamics technique with hydrodynamic interactions for modeling self-developing flow of polymer solutions. <i>Journal of Chemical Physics</i> , 2018 , 148, 034902	3.9	1
95	Light from Within: Sensing Weak Strains and FemtoNewton Forces in Single Molecules. <i>CheM</i> , 2018 , 4, 269-284	16.2	23
94	Linking slow dynamics and microscopic connectivity in dense suspensions of charged colloids. <i>Soft Matter</i> , 2018 , 14, 780-788	3.6	6
93	Laser Speckle Strain Imaging reveals the origin of delayed fracture in a soft solid. <i>Science Advances</i> , 2018 , 4, eaar1926	14.3	21
92	A Hybrid Monte Carlo Self-Consistent Field Model of Physical Gels of Telechelic Polymers. <i>Journal of Chemical Theory and Computation</i> , 2018 , 14, 6532-6543	6.4	4
91	Grand Challenges in Soft Matter Physics. <i>Frontiers in Physics</i> , 2018 , 6,	3.9	16
90	Strand Plasticity Governs Fatigue in Colloidal Gels. <i>Physical Review Letters</i> , 2018 , 120, 208005	7.4	18
89	Mechanoluminescent Imaging of Osmotic Stress-Induced Damage in a Glassy Polymer Network. <i>Macromolecules</i> , 2017 , 50, 2043-2053	5.5	42
88	Criticality and mechanical enhancement in composite fiber networks. <i>Physical Review E</i> , 2017 , 95, 042503	3.4	11
87	Spatial blurring in laser speckle imaging in inhomogeneous turbid media. <i>Scientific Reports</i> , 2017 , 7, 168749	4.9	2
86	Fragility and Strength in Nanoparticle Glasses. <i>ACS Nano</i> , 2017 , 11, 6755-6763	16.7	47
85	Multi-step control over self-assembled hydrogels of peptide-derived building blocks and a polymeric cross-linker. <i>Soft Matter</i> , 2016 , 12, 432-40	3.6	10
84	Enhanced stiffness of silk-like fibers by loop formation in the corona leads to stronger gels. <i>Biopolymers</i> , 2016 , 105, 795-801	2.2	1
83	Quantitative imaging of heterogeneous dynamics in drying and aging paints. <i>Scientific Reports</i> , 2016 , 6, 34383	4.9	27
82	Physical and mechanical properties of thermosensitive xanthan/collagen-inspired protein composite hydrogels. <i>International Journal of Polymeric Materials and Polymeric Biomaterials</i> , 2016 , 65, 125-133	3	2
81	Reversible polypeptide hydrogels from asymmetric telechelics with temperature-dependent and Ni(2+)-dependent connectors. <i>Soft Matter</i> , 2016 , 12, 4979-84	3.6	3
80	Coarse-grained simulations for flow of complex soft matter fluids in the bulk and in the presence of solid interfaces. <i>Journal of Chemical Physics</i> , 2016 , 145, 194903	3.9	5

79	Multiple relaxation modes in associative polymer networks with varying connectivity. <i>Physical Review E</i> , 2016 , 94, 032507	2.4	12
78	Reversible Temperature-Switching of Hydrogel Stiffness of Coassembled, Silk-Collagen-Like Hydrogels. <i>Biomacromolecules</i> , 2015 , 16, 2506-13	6.9	20
77	Manipulating and quantifying temperature-triggered coalescence with microcentrifugation. <i>Lab on A Chip</i> , 2015 , 15, 188-94	7.2	19
76	Coalescence, Cracking, and Crack Healing in Drying Dispersion Droplets. <i>Langmuir</i> , 2015 , 31, 4419-28	4	21
75	Caterpillar-Inspired Design and Fabrication of A Self-Walking Actuator with Anisotropy, Gradient, and Instant Response. <i>Small</i> , 2015 , 11, 3494-501	11	46
74	The Weak Interaction of Surfactants with Polymer Brushes and Its Impact on Lubricating Behavior. <i>Macromolecules</i> , 2015 , 48, 6186-6196	5.5	46
73	Equivalent pathways in melting and gelation of well-defined biopolymer networks. <i>Biomacromolecules</i> , 2015 , 16, 304-10	6.9	9
72	Hydrodynamic model for drying emulsions. <i>Physical Review E</i> , 2015 , 92, 023011	2.4	12
71	Controlling the Structure and Length of Self-Synthesizing Supramolecular Polymers through Nucleated Growth and Disassembly. <i>Angewandte Chemie - International Edition</i> , 2015 , 54, 7852-6	16.4	125
70	Interactions between nodes in a physical gel network of telechelic polymers; self-consistent field calculations beyond the cell model. <i>Physical Chemistry Chemical Physics</i> , 2015 , 17, 9001-14	3.6	9
69	Highly cooperative stress relaxation in two-dimensional soft colloidal crystals. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, 15356-61	11.5	20
68	Controlling the number of dendrimers in dendrimicelle nanoconjugates from 1 to more than 100. <i>Soft Matter</i> , 2014 , 10, 7337-45	3.6	25
67	Role of membrane disturbance and oxidative stress in the mode of action underlying the toxicity of differently charged polystyrene nanoparticles. <i>RSC Advances</i> , 2014 , 4, 19321-19330	3.7	39
66	Supramolecular assembly of self-healing nanocomposite hydrogels. <i>Macromolecular Rapid Communications</i> , 2014 , 35, 2065-70	4.8	20
65	Synergistic stiffening in double-fiber networks. <i>Biomacromolecules</i> , 2014 , 15, 1233-9	6.9	10
64	Pathway-dependent properties of a multi-stimuli sensitive biosynthetic hybrid network. <i>Soft Matter</i> , 2013 , 9, 8737	3.6	4
63	Multi-responsive physical gels formed by a biosynthetic asymmetric triblock protein polymer and a polyanion. <i>Soft Matter</i> , 2013 , 9, 8923	3.6	13
62	Disulfide bond-stabilized physical gels of an asymmetric collagen-inspired telechelic protein polymer. <i>Soft Matter</i> , 2013 , 9, 6391	3.6	8

61	Controlled mixing of lanthanide(III) ions in coacervate core micelles. <i>Chemical Communications</i> , 2013 , 49, 3736-8	5.8	49
60	Two modes of phase inversion in a drying emulsion. <i>Soft Matter</i> , 2013 , 9, 2810	3.6	22
59	Enhanced rigidity and rupture strength of composite hydrogel networks of bio-inspired block copolymers. <i>Soft Matter</i> , 2013 , 9, 6936	3.6	9
58	Surface charge-specific cytotoxicity and cellular uptake of tri-block copolymer nanoparticles. <i>Nanotoxicology</i> , 2013 , 7, 71-84	5.3	51
57	Structure and Dynamics of Polyelectrolyte Complex Coacervates Studied by Scattering of Neutrons, X-rays, and Light. <i>Macromolecules</i> , 2013 , 46, 4596-4605	5.5	76
56	Capillarity-induced ordering of spherical colloids on an interface with anisotropic curvature. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2013 , 110, 9220-4	11.5	94
55	Linear Viscoelasticity of Polyelectrolyte Complex Coacervates. <i>Macromolecules</i> , 2013 , 46, 1633-1641	5.5	134
54	Fibril formation by pH and temperature responsive silk-elastin block copolymers. <i>Biomacromolecules</i> , 2013 , 14, 48-55	6.9	22
53	The influence of charge ratio on transient networks of polyelectrolyte complex micelles. <i>Soft Matter</i> , 2012 , 8, 104-117	3.6	28
52	Phase Diagram of Coacervate Complexes Containing Reversible Coordination Structures. <i>Macromolecules</i> , 2012 , 45, 8903-8909	5.5	23
51	Direct measurement of the strength of single ionic bonds between hydrated charges. <i>ACS Nano</i> , 2012 , 6, 5297-303	16.7	36
50	Hybrid Monte Carlo self-consistent field approach to model a thin layer of a polyelectrolyte gel near an adsorbing surface. <i>Journal of Physical Chemistry A</i> , 2012 , 116, 6574-81	2.8	6
49	Stable Polymer Micelles Formed by Metal Coordination. <i>Macromolecules</i> , 2012 , 45, 7179-7185	5.5	31
48	Mechanical properties of reconstituted actin networks at an oil/water interface determined by microrheology. <i>Soft Matter</i> , 2012 , 8, 5896	3.6	10
47	Cytotoxicity and cellular uptake of tri-block copolymer nanoparticles with different size and surface characteristics. <i>Particle and Fibre Toxicology</i> , 2012 , 9, 11	8.4	55
46	Physical gels based on charge-driven bridging of nanoparticles by triblock copolymers. <i>Langmuir</i> , 2012 , 28, 12311-8	4	17
45	On the stability and morphology of complex coacervate core micelles: from spherical to wormlike micelles. <i>Langmuir</i> , 2012 , 28, 14180-91	4	88
44	Transient network topology of interconnected polyelectrolyte complex micelles. <i>Soft Matter</i> , 2011 , 7, 1378	3.6	43

43	Reversible assembly of oppositely charged hairy colloids in water. <i>Soft Matter</i> , 2011 , 7, 8281	3.6	40
42	Effect of pH on complex coacervate core micelles from Fe(III)-based coordination polymer. <i>Langmuir</i> , 2011 , 27, 14776-82	4	20
41	Looped structure of flowerlike micelles revealed by 1H NMR relaxometry and light scattering. <i>Langmuir</i> , 2011 , 27, 9843-8	4	80
40	Shape-memory effects in biopolymer networks with collagen-like transient nodes. <i>Biomacromolecules</i> , 2011 , 12, 2285-92	6.9	49
39	Polyelectrolyte complexes: bulk phases and colloidal systems. <i>Journal of Colloid and Interface Science</i> , 2011 , 361, 407-22	9.3	403
38	Relaxation dynamics at different time scales in electrostatic complexes: time-salt superposition. <i>Physical Review Letters</i> , 2010 , 105, 208301	7.4	141
37	Complex coacervate core micelles from iron-based coordination polymers. <i>Journal of Physical Chemistry B</i> , 2010 , 114, 8313-9	3.4	48
36	Fracture and Self-Healing in a Well-Defined Self-Assembled Polymer Network. <i>Macromolecules</i> , 2010 , 43, 3542-3548	5.5	106
35	Dynamic Force Spectroscopy of Oppositely Charged Polyelectrolyte Brushes. <i>Macromolecules</i> , 2010 , 43, 1543-1550	5.5	38
34	Binodal Compositions of Polyelectrolyte Complexes. <i>Macromolecules</i> , 2010 , 43, 6476-6484	5.5	259
33	Macromolecular Diffusion in Self-Assembling Biodegradable Thermosensitive Hydrogels. <i>Macromolecules</i> , 2010 , 43, 782-789	5.5	41
32	Kinetics of network formation by telechelic polypeptides with trimeric nodes. <i>Soft Matter</i> , 2010 , 6, 416-422	5.2	13
31	Influence of molecular size on gel-forming properties of telechelic collagen-inspired polymers. <i>Soft Matter</i> , 2010 , 6, 4681	3.6	16
30	Interfacial tension between a complex coacervate phase and its coexisting aqueous phase. <i>Soft Matter</i> , 2010 , 6, 172-178	3.6	123
29	Multiresponsive reversible gels based on charge-driven assembly. <i>Angewandte Chemie - International Edition</i> , 2010 , 49, 708-11	16.4	121
28	Intermittent dynamics in transient polymer networks under shear: signs of self-organized criticality. <i>Physical Review E</i> , 2009 , 79, 056306	2.4	14
27	Physical model of cellular symmetry breaking. <i>Cold Spring Harbor Perspectives in Biology</i> , 2009 , 1, a001908	0.2	27
26	Reconstitution of an actin cortex inside a liposome. <i>Biophysical Journal</i> , 2009 , 96, 192-8	2.9	161

25	Failure-mode transition in transient polymer networks with particle-based simulations. <i>Soft Matter</i> , 2009 , 5, 4748	3.6	46
24	Physical gels of telechelic triblock copolymers with precisely defined junction multiplicity. <i>Soft Matter</i> , 2009 , 5, 2057	3.6	56
23	Dilute gels with exceptional rigidity from self-assembling silk-collagen-like block copolymers. <i>Soft Matter</i> , 2009 , 5, 4191	3.6	27
22	Shear banding and rheochaos in associative polymer networks. <i>Soft Matter</i> , 2008 , 4, 1696-1705	3.6	56
21	Brownian particles in transient polymer networks. <i>Physical Review E</i> , 2008 , 77, 061502	2.4	45
20	Dynamics of polymer bridge formation and disruption. <i>Physical Review E</i> , 2008 , 78, 040802	2.4	10
19	Non-Gaussian curvature distribution of actin-propelled biomimetic colloid trajectories. <i>European Biophysics Journal</i> , 2008 , 37, 1361-6	1.9	22
18	Rouse dynamics of colloids bound to polymer networks. <i>Physical Review Letters</i> , 2007 , 99, 208301	7.4	38
17	Cracking up: symmetry breaking in cellular systems. <i>Journal of Cell Biology</i> , 2006 , 175, 687-92	7.3	50
16	Multiple shear-banding transitions in a supramolecular polymer solution. <i>Physical Review Letters</i> , 2006 , 97, 108301	7.4	30
15	Deformations in actin comets from rocketing beads. <i>Biophysical Journal</i> , 2006 , 91, 3113-22	2.9	37
14	Stress release drives symmetry breaking for actin-based movement. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2005 , 102, 7847-52	11.5	112
13	Supramolecular Coordination Polymers: Viscosimetry and Voltammetry. <i>Journal of Physical Chemistry B</i> , 2004 , 108, 2531-2539	3.4	17
12	Equilibrium Polymers at Interfaces: Analytical Self-Consistent-Field Theory. <i>Macromolecules</i> , 2004 , 37, 3026-3036	5.5	26
11	Interactions between surfaces in the presence of nonadsorbing equilibrium polymers. <i>Journal of Physics Condensed Matter</i> , 2003 , 15, 6627-6645	1.8	8
10	Water-Soluble Reversible Coordination Polymers: Chains and Rings. <i>Macromolecules</i> , 2003 , 36, 7035-7044	5.5	135
9	Brownian particles in supramolecular polymer solutions. <i>Physical Review E</i> , 2003 , 67, 051106	2.4	77
8	Surface forces induced by ideal equilibrium polymers. <i>Journal of Chemical Physics</i> , 2003 , 119, 8175-8188	3.9	35

7	Statistical thermodynamics of equilibrium polymers at interfaces. <i>Physical Review E</i> , 2002 , 65, 051801	2.4	21
6	Chain-Length Dependence of the Polymer Surface Excess near the Adsorption/Depletion Transition. <i>Macromolecules</i> , 2002 , 35, 2810-2816	5.5	10
5	Surface Segregation in Polydisperse Polymer Melts. <i>Macromolecules</i> , 2002 , 35, 6732-6738	5.5	31
4	Surface forces, supramolecular polymers, and inversion symmetry. <i>Journal of the American Chemical Society</i> , 2002 , 124, 6202-5	16.4	32
3	Coil size oscillatory packing in polymer solutions near a surface. <i>Journal of Chemical Physics</i> , 2000 , 113, 2886-2893	3.9	26
2	Stuffed brushes: theory and experiment. <i>Pure and Applied Chemistry</i> , 1999 , 71, 1227-1241	2.1	75
1	End-Grafted Polymers with Surfactants: A Theoretical Model. <i>Langmuir</i> , 1998 , 14, 5740-5750	4	21