Paul H J Kouwer

List of Publications by Year
in descending order

105	4,006	101543	133252
papers	citations	36 h-index	59 g-index

112	112	112	4786
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Responsive biomimetic networks from polyisocyanopeptide hydrogels. Nature, 2013, 493, 651-655.	27.8	441
2	Ultra-responsive soft matter from strain-stiffening hydrogels. Nature Communications, 2014, 5, 5808.	12.8	186
3	Synthesis and Mesomorphic Properties of Rigid-Core Ionic Liquid Crystals. Journal of the American Chemical Society, 2007, 129, 14042-14052.	13.7	182
4	Triazole: a unique building block for the construction of functional materials. Chemical Communications, 2011, 47, 8740.	4.1	152
5	Selfâ€Assembled Organic Microfibers for Nonlinear Optics. Advanced Materials, 2013, 25, 2084-2089.	21.0	119
6	Tuning Hydrogel Mechanics Using the Hofmeister Effect. Advanced Functional Materials, 2015, 25, 6503-6510.	14.9	102
7	Thermosensitive biomimetic polyisocyanopeptide hydrogels may facilitate wound repair. Biomaterials, 2018, 181, 392-401.	11.4	90
8	Columnar mesophases from half-discoid platinum cyclometalated metallomesogens. Journal of Materials Chemistry, 2008, 18, 400-407.	6.7	85
9	Full Miscibility of Disk- and Rod-Shaped Mesogens in the Nematic Phase. Journal of the American Chemical Society, 2003, 125, 11172-11173.	13.7	82
10	A Novel Modular Approach to Triazole-Functionalized Phthalocyanines Using Click Chemistry. Journal of Organic Chemistry, 2009, 74, 21-25.	3.2	79
11	Dynamics of molecular self-ordering in tetraphenyl porphyrin monolayers on metallic substrates. Nanotechnology, 2009, 20, 275602.	2.6	75
12	Crosslinking of fibrous hydrogels. Nature Communications, 2018, 9, 2172.	12.8	75
13	Synthetic Extracellular Matrices with Nonlinear Elasticity Regulate Cellular Organization. Biomacromolecules, 2019, 20, 826-834.	5.4	71
14	Key Developments in Ionic Liquid Crystals. International Journal of Molecular Sciences, 2016, 17, 731.	4.1	68
15	The living interface between synthetic biology and biomaterial design. Nature Materials, 2022, 21, 390-397.	27.5	68
16	Dynamics of a Triphenylene Discotic Molecule, HAT6, in the Columnar and Isotropic Liquid Phases. Journal of the American Chemical Society, 2003, 125, 3860-3866.	13.7	67
17	Cytoskeletal stiffening in synthetic hydrogels. Nature Communications, 2019, 10, 609.	12.8	63
18	Nonlinear mechanics of hybrid polymer networks that mimic the complex mechanical environment of cells. Nature Communications, 2017, 8, 15478.	12.8	60

#	Article	IF	Citations
19	Charge Transfer Complexes of Discotic Liquid Crystals:â€‰ A Flexible Route to a Wide Variety of Mesophases. Macromolecules, 2002, 35, 4322-4329.	4.8	59
20	Liquid crystal templating as an approach to spatially and temporally organise soft matter. Chemical Society Reviews, 2017, 46, 5935-5949.	38.1	57
21	A tunable and injectable local drug delivery system for personalized periodontal application. Journal of Controlled Release, 2020, 324, 134-145.	9.9	56
22	Biomimetic Networks with Enhanced Photodynamic Antimicrobial Activity from Conjugated Polythiophene/Polyisocyanide Hybrid Hydrogels. Angewandte Chemie - International Edition, 2020, 59, 2720-2724.	13.8	55
23	Self-Organizing Properties of Monosubstituted Sucrose Fatty Acid Esters: The Effects of Chain Length and Unsaturation. Chemistry - A European Journal, 2006, 12, 3547-3557.	3.3	54
24	Synthesis of Amphiphilic Phenylazophenyl Glycosides and a Study of Their Liquid Crystal Properties. Journal of the American Chemical Society, 2003, 125, 15499-15506.	13.7	52
25	Synthesis and Characterization of a Novel Liquid Crystalline Polymer Showing a Nematic Columnar to Nematic Discotic Phase Transition. Macromolecules, 2000, 33, 4336-4342.	4.8	48
26	Hierarchical organisation in shape-amphiphilic liquid crystals. Journal of Materials Chemistry, 2009, 19, 1564.	6.7	47
27	Bundle Formation in Biomimetic Hydrogels. Biomacromolecules, 2016, 17, 2642-2649.	5.4	47
28	Multiple Levels of Order in Linked Discâ€“Rod Liquid Crystals. Angewandte Chemie - International Edition, 2003, 42, 6015-6018.	13.8	46
29	Long- and Short-Range Order in the Mesophases of Laterally Substituted Calamitic Mesogens and their Radial Octapodes. Journal of Physical Chemistry B, 2008, 112, 6550-6556.	2.6	46
30	Antimicrobial and anti-inflammatory thermo-reversible hydrogel for periodontal delivery. Acta Biomaterialia, 2020, 116, 259-267.	8.3	46
31	Triazoleâ€“pyridineligands: a novel approach to chromophoric iridium arrays. Journal of Materials Chemistry, 2011, 21, 2104-2111.	6.7	44
32	Specific interactions in discotic liquid crystals. Journal of Materials Chemistry, 2003, 13, 458-469.	6.7	43
33	Disc-shaped triphenylenes in a smectic organisation. Chemical Communications, 2004, , 66.	4.1	43
34	Fusing Triazoles: Toward Extending Aromaticity. Organic Letters, 2011, 13, 3494-3497.	4.6	41
35	Controlling Microsized Polymorphic Architectures with Distinct Linear and Nonlinear Optical Properties. Advanced Optical Materials, 2015, 3, 948-956.	7.3	39
36	Self-Healing Hydrogels Formed by Complexation between Calcium Ions and Bisphosphonate-Functionalized Star-Shaped Polymers. Macromolecules, 2017, 50, 8698-8706.	4.8	39

#	Article	IF	Citations
37	Columnar phase structures of an organicâ€“inorganic hybrid functionalized with eight calamitic mesogens. Soft Matter, 2007, 3, 857-865.	2.7	37
38	Preparation and characterization of non-linear poly(ethylene glycol) analogs from oligo(ethylene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 7	5.4	37
39	The Nematic Lateral Phase:Â A Novel Phase in Discotic Supramolecular Assemblies. Macromolecules, 2001, 34, 7582-7584.	4.8	36
40	Strategies To Increase the Thermal Stability of Truly Biomimetic Hydrogels: Combining Hydrophobicity and Directed Hydrogen Bonding. Macromolecules, 2017, 50, 9058-9065.	4.8	36
41	Cell-matrix reciprocity in 3D culture models with nonlinear elasticity. Bioactive Materials, 2022, 9, 316-331.	15.6	36
42	Templated Hierarchical Selfâ€Assembly of Poly(pâ€aryltriazole) Foldamers. Angewandte Chemie - International Edition, 2013, 52, 11040-11044.	13.8	32
43	Polyisocyanide Hydrogels as a Tunable Platform for Mammary Gland Organoid Formation. Advanced Science, 2020, 7, 2001797.	11.2	31
44	Structural characterization of fibrous synthetic hydrogels using fluorescence microscopy. Soft Matter, 2020, 16, 4210-4219.	2.7	31
45	1Hâ€1,2,3â€Triazole: From Structure to Function and Catalysis. Journal of Heterocyclic Chemistry, 2017, 54, 1677-1699.	2.6	30
46	Induced Liquid Crystalline Diversity in Molecular and Polymeric Charge-Transfer Complexes of Discotic Mesogens. Macromolecules, 2002, 35, 2576-2582.	4.8	29
47	Fibrin-fiber architecture influences cell spreading and differentiation. Cell Adhesion and Migration, 2016, 10, 495-504.	2.7	29
48	Stiffness versus architecture of single helical polyisocyanopeptides. Chemical Science, 2013, 4, 2357.	7.4	28
49	Synthetic Extracellular Matrices as a Toolbox to Tune Stem Cell Secretome. ACS Applied Materials & Interfaces, 2020, 12, 56723-56730.	8.0	28
50	Shape Dependence in the Formation of Condensed Phases Exhibited by Disubstituted Sucrose Esters. Chemistry - A European Journal, 2007, 13, 1763-1775.	3.3	25
51	Patterning of Soft Matter across Multiple Length Scales. Advanced Functional Materials, 2016, 26, 2609-2616.	14.9	25
52	Strong optical nonlinearities of self-assembled polymorphic microstructures of phenylethynyl functionalized fluorenones. Chinese Chemical Letters, 2018, 29, 297-300.	9.0	25
53	A bilayer to monolayer phase transition in liquid crystal glycolipidsElectronic supplementary information (ESI) available: synthesis of compound 3. See http://www.rsc.org/suppdata/cc/b3/b308880d/. Chemical Communications, 2003, , 2860.	4.1	23
54	Multichromophoric Phthalocyanineâ€“(Perylenediimide)₈ Molecules: A Photophysical Study. Chemistry - A European Journal, 2010, 16, 10021-10029.	3.3	23

#	Article	IF	Citations
55	Magnetic Stiffening in 3D Cell Culture Matrices. Nano Letters, 2021, 21, 6740-6747.	9.1	23
56	Towards room-temperature ionic liquid crystals. Journal of Materials Chemistry A, 2013, 1, 354-357.	10.3	22
57	Monitoring ¹¹¹In-labelled polyisocyanopeptide (PIC) hydrogel wound dressings in full-thickness wounds. Biomaterials Science, 2019, 7, 3041-3050.	5.4	22
58	Local lamellar organisation of discotic mesogens carrying fluorinated tails. Journal of Materials Chemistry, 2007, 17, 4196.	6.7	20
59	Controlling the gelation temperature of biomimetic polyisocyanides. Chinese Chemical Letters, 2018, 29, 281-284.	9.0	19
60	Discotic Multipodes with Nematic Mesophases. Molecular Crystals and Liquid Crystals, 2004, 411, 387-396.	0.9	17
61	Fully Stable and Homogeneous Lyotropic Liquid Crystal Alignment on Anisotropic Surfaces. Advanced Functional Materials, 2017, 27, 1701209.	14.9	17
62	Fibrous Hydrogels under Multiâ€Axial Deformation: Persistence Length as the Main Determinant of Compression Softening. Advanced Functional Materials, 2021, 31, 2010527.	14.9	17
63	Combining Mechanical Tuneability with Function: Biomimetic Fibrous Hydrogels with Nanoparticle Crosslinkers. Advanced Functional Materials, 2021, 31, 2105713.	14.9	17
64	Novel Synthetic Polymer-Based 3D Contraction Assay: A Versatile Preclinical Research Platform for Fibrosis. ACS Applied Materials & Interfaces, 2022, 14, 19212-19225.	8.0	17
65	Uniform N-(2-Aminoethyl)(3-aminopropyl)trimethoxysilane Monolayer Growth in Water. Journal of Physical Chemistry C, 2008, 112, 20105-20108.	3.1	14
66	Stabilisation of 2D colloidal assemblies by polymerisation of liquid crystalline matrices for photonic applications. Soft Matter, 2014, 10, 5797-5803.	2.7	14
67	Unusual temperature dependence of elastic constants of an ambient-temperature discotic nematic liquid crystal. Soft Matter, 2016, 12, 2960-2964.	2.7	13
68	Anchoring strength measurements of a lyotropic chromonic liquid crystal on rubbed polyimide surfaces. Liquid Crystals, 2017, 44, 1165-1172.	2.2	13
69	Tunable Hybrid Matrices Drive Epithelial Morphogenesis and YAP Translocation. Advanced Science, 2021, 8, 2003380.	11.2	13
70	Semiflexible polymer scaffolds: an overview of conjugation strategies. Polymer Chemistry, 2021, 12, 1362-1392.	3.9	13
71	Postfunctionalization of Helical Polyisocyanopeptides with Phthalocyanine Chromophores by â€œClick Chemistryâ€• ChemPlusChem, 2012, 77, 700-706.	2.8	12
72	Multivalent Sgc8c-aptamer decorated polymer scaffolds for leukemia targeting. Chemical Communications, 2021, 57, 2744-2747.	4.1	12

#	Article	IF	Citations
73	Modeling of NDand NColPhase Transitions in Discotic Side Chain Polymers by the Extended McMillan Theory. Journal of the American Chemical Society, 2001, 123, 4645-4646.	13.7	11
74	Dynamics of discotic methoxy triphenylene molecules from quasielastic neutron scattering and molecular dynamics simulations. Chemical Physics, 2003, 292, 185-190.	1.9	11
75	Mixtures of disc-shaped and rod-shaped mesogens with chiral components. Journal of Materials Chemistry, 2004, 14, 1798.	6.7	11
76	Directed peptide amphiphile assembly using aqueous liquid crystal templates in magnetic fields. Soft Matter, 2016, 12, 6518-6525.	2.7	11
77	Electric field generation of Skyrmion-like structures in a nematic liquid crystal. Soft Matter, 2016, 12, 853-858.	2.7	11
78	Toward Tissueâ€Like Material Properties: Inducing In Situ Adaptive Behavior in Fibrous Hydrogels. Advanced Materials, 2022, 34, .	21.0	11
79	Nematic Phases of Disc-And Rod-Shaped Molecules. Molecular Crystals and Liquid Crystals, 2003, 397, 1-16.	0.9	10
80	Smectic A mesophases from luminescent sandic platinum(II) mesogens. Liquid Crystals, 2016, 43, 1709-1713.	2.2	10
81	Synthetic Semiflexible and Bioactive Brushes. Biomacromolecules, 2019, 20, 2587-2597.	5.4	10
82	Substituent Effects in Discotic Liquid Crystals. Molecular Crystals and Liquid Crystals, 2004, 411, 305-312.	0.9	9
83	The Nematic Discotic Phase in Materials Containing a Siloxane Core. Molecular Crystals and Liquid Crystals, 2004, 411, 377-385.	0.9	9
84	Critical behaviour in the nonlinear elastic response of hydrogels. Soft Matter, 2016, 12, 6995-7004.	2.7	9
85	Polyisocyanopeptide Hydrogels Are Effectively Sterilized Using Supercritical Carbon Dioxide. Tissue Engineering - Part C: Methods, 2020, 26, 132-141.	2.1	9
86	A Novel Polyaryl Ether Based Photorefractive Composite. Chemistry of Materials, 1998, 10, 3951-3957.	6.7	8
87	Virus-like particles as crosslinkers in fibrous biomimetic hydrogels: approaches towards capsid rupture and gel repair. Soft Matter, 2018, 14, 1442-1448.	2.7	8
88	Thin-Film Polyisocyanide-Based Hydrogels for Affinity Biosensors. Journal of Physical Chemistry C, 2021, 125, 12960-12967.	3.1	8
89	Magnetically Driven Hierarchical Alignment in Biomimetic Fibrous Hydrogels. Small, 2022, 18, .	10.0	8
90	Synthesis of Functional Fluorescent BODIPYâ€based Dyes through Electrophilic Aromatic Substitution: Straightforward Approach towards Customized Fluorescent Probes. ChemistryOpen, 2016, 5, 450-454.	1.9	7

#	Article	IF	Citations
91	Directing Soft Matter in Water Using Electric Fields. ACS Applied Materials & Interfaces, 2016, 8, 16303-16309.	8.0	7
92	The trisubstituted-triazole approach to extended functional naphthalocyanines. Journal of Porphyrins and Phthalocyanines, 2011, 15, 898-907.	0.8	5
93	A Temperatureâ€Based Easyâ€Separable (TempEasy) 3D Hydrogel Coculture System. Advanced Healthcare Materials, 2022, 11, e2102389.	7.6	5
94	A facile route to hydrophilic ionic liquids. RSC Advances, 2014, 4, 30267-30273.	3.6	4
95	Spatial and temporal patterning of polymers in electric field responsive LC templates. Journal of Materials Chemistry C, 2016, 4, 8263-8269.	5.5	4
96	Muscovite mica as a growth template of PC₆₁BM crystallites for organic photovoltaics. CrystEngComm, 2017, 19, 4424-4436.	2.6	4
97	Biomimetic Networks with Enhanced Photodynamic Antimicrobial Activity from Conjugated Polythiophene/Polyisocyanide Hybrid Hydrogels. Angewandte Chemie, 2020, 132, 2742-2746.	2.0	4
98	Structure and Dynamics of a Temperature-Sensitive Hydrogel. Journal of Physical Chemistry B, 2021, 125, 8219-8224.	2.6	4
99	Dynamics and Phase Transitions in Discotic and Calamitic Liquid Crystal Side-chain Polymers. Molecular Crystals and Liquid Crystals, 2004, 411, 503-513.	0.9	3
100	Maximizing Orientational Order in Polymer-Stabilized Liquid Crystals Using High Magnetic Fields. Macromolecules, 2015, 48, 1002-1008.	4.8	3
101	Solid-state NMR characterization of tri-ethyleneglycol grafted polyisocyanopeptides. Magnetic Resonance in Chemistry, 2016, 54, 328-333.	1.9	3
102	Order at Extreme Dilution. Advanced Functional Materials, 2016, 26, 9009-9016.	14.9	3
103	Tunable properties based on regioselectivity of 1,2,3-triazole units in axially chiral 2,2â€²-linked 1,1â€²-binaphthyl-based copolymers for ions and acid responsiveness. European Polymer Journal, 2018, 108, 191-198.	5.4	3
104	NEMATIC PHASES OF DISC-AND ROD-SHAPED MOLECULES. Molecular Crystals and Liquid Crystals, 2003, 397, 1-1.	0.9	3
105	Disc-Shaped Triphenylenes in a Smectic Organisation.. ChemInform, 2004, 35, no.	0.0	0