

Rienk Eelkema

List of Publications by Year in descending order

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96
papers

6,837
citations

71061

41
h-index

60583

81
g-index

112
all docs

112
docs citations

112
times ranked

6768
citing authors

#	ARTICLE	IF	CITATIONS
1	Nanomotor rotates microscale objects. <i>Nature</i> , 2006, 440, 163-163.	13.7	781
2	Transient assembly of active materials fueled by a chemical reaction. <i>Science</i> , 2015, 349, 1075-1079.	6.0	656
3	Dissipative out-of-equilibrium assembly of man-made supramolecular materials. <i>Chemical Society Reviews</i> , 2017, 46, 5519-5535.	18.7	391
4	Dissipative Self-Assembly of a Molecular Gelator by Using a Chemical Fuel. <i>Angewandte Chemie - International Edition</i> , 2010, 49, 4825-4828.	7.2	373
5	Amplification of chirality in liquid crystals. <i>Organic and Biomolecular Chemistry</i> , 2006, 4, 3729.	1.5	299
6	Large tunable image-charge effects in single-molecule junctions. <i>Nature Nanotechnology</i> , 2013, 8, 282-287.	15.6	258
7	Catalytic control over supramolecular gel formation. <i>Nature Chemistry</i> , 2013, 5, 433-437.	6.6	246
8	Signatures of Quantum Interference Effects on Charge Transport Through a Single Benzene Ring. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 3152-3155.	7.2	204
9	Rotational Reorganization of Doped Cholesteric Liquid Crystalline Films. <i>Journal of the American Chemical Society</i> , 2006, 128, 14397-14407.	6.6	200
10	Triggered Self-Assembly of Simple Dynamic Covalent Surfactants. <i>Journal of the American Chemical Society</i> , 2009, 131, 11274-11275.	6.6	174
11	Organocatalysis in aqueous media. <i>Nature Reviews Chemistry</i> , 2019, 3, 491-508.	13.8	138
12	Spatial Structuring of a Supramolecular Hydrogel by using a Visible-Light Triggered Catalyst. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 998-1001.	7.2	135
13	Responsive Vesicles from Dynamic Covalent Surfactants. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 3421-3424.	7.2	125
14	Catalytic molecular motors: fuelling autonomous movement by a surface bound synthetic manganese catalase. <i>Chemical Communications</i> , 2005, , 3936.	2.2	113
15	De Novo Asymmetric Bio- and Chemocatalytic Synthesis of Saccharides with Stereoselective Formal O-Glycoside Bond Formation Using Palladium Catalysis. <i>Journal of the American Chemical Society</i> , 2003, 125, 8714-8715.	6.6	104
16	Fuel-Mediated Transient Clustering of Colloidal Building Blocks. <i>Journal of the American Chemical Society</i> , 2017, 139, 9763-9766.	6.6	100
17	A Self-Assembled Delivery Platform with Post-production Tunable Release Rate. <i>Journal of the American Chemical Society</i> , 2012, 134, 12908-12911.	6.6	98
18	Radical Cation Stabilization in a Cucurbituril Oligoaniline Rotaxane. <i>Journal of the American Chemical Society</i> , 2007, 129, 12384-12385.	6.6	86

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19	Direct Visual Detection of the Stereoselectivity of a Catalytic Reaction. <i>Angewandte Chemie - International Edition</i> , 2004, 43, 5013-5016.	7.2	81
20	Photoinduced Reorganization of Motor-Doped Chiral Liquid Crystals: Bridging Molecular Isomerization and Texture Rotation. <i>Journal of the American Chemical Society</i> , 2008, 130, 14615-14624.	6.6	80
21	Pros and Cons: Supramolecular or Macromolecular: What Is Best for Functional Hydrogels with Advanced Properties?. <i>Advanced Materials</i> , 2020, 32, e1906012.	11.1	78
22	A gate-tunable single-molecule diode. <i>Nanoscale</i> , 2016, 8, 8919-8923.	2.8	76
23	Resolving Chemical Modifications to a Single Amino Acid within a Peptide Using a Biological Nanopore. <i>ACS Nano</i> , 2019, 13, 13668-13676.	7.3	76
24	Electrical properties and mechanical stability of anchoring groups for single-molecule electronics. <i>Beilstein Journal of Nanotechnology</i> , 2015, 6, 1558-1567.	1.5	69
25	Synthetic Self-Assembled Materials in Biological Environments. <i>Advanced Materials</i> , 2016, 28, 4576-4592.	11.1	68
26	Spatial and Directional Control over Self-Assembly Using Catalytic Micropatterned Surfaces. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 4132-4136.	7.2	67
27	Free-standing supramolecular hydrogel objects by reaction-diffusion. <i>Nature Communications</i> , 2017, 8, 15317.	5.8	67
28	Variable gelation time and stiffness of low-molecular-weight hydrogels through catalytic control over self-assembly. <i>Nature Protocols</i> , 2014, 9, 977-988.	5.5	64
29	Catalysis of Supramolecular Hydrogelation. <i>Accounts of Chemical Research</i> , 2016, 49, 1440-1447.	7.6	64
30	Photo-responsive doped cholesteric liquid crystals. <i>Liquid Crystals</i> , 2011, 38, 1641-1652.	0.9	60
31	Macroscopic Expression of the Chirality of Amino Alcohols by a Double Amplification Mechanism in Liquid Crystalline Media. <i>Journal of the American Chemical Society</i> , 2005, 127, 13480-13481.	6.6	57
32	Reversible Full-Range Color Control of a Cholesteric Liquid-Crystalline Film by using a Molecular Motor. <i>Chemistry - an Asian Journal</i> , 2006, 1, 367-369.	1.7	56
33	Influence of the Chemical Structure on the Stability and Conductance of Porphyrin Single-Molecule Junctions. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 11223-11226.	7.2	56
34	Biomimetic Strain-Induced Stiffening Self-Assembled Hydrogels. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 4830-4834.	7.2	48
35	Responsive Wormlike Micelles from Dynamic Covalent Surfactants. <i>Langmuir</i> , 2012, 28, 13570-13576.	1.6	47
36	Aggregation-Driven Reversible Formation of Conjugated Polymers in Water. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 1998-2001.	7.2	47

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37	Single-Molecule Resonant Tunneling Diode. <i>Journal of Physical Chemistry C</i> , 2015, 119, 5697-5702.	1.5	46
38	Gelation Landscape Engineering Using a Multi-Reaction Supramolecular Hydrogelator System. <i>Journal of the American Chemical Society</i> , 2015, 137, 14236-14239.	6.6	46
39	Hierarchically Compartmentalized Supramolecular Gels through Multilevel Self-Sorting. <i>Journal of the American Chemical Society</i> , 2019, 141, 2847-2851.	6.6	44
40	Dynamic covalent assembly of stimuli responsive vesicle gels. <i>Chemical Communications</i> , 2012, 48, 9837.	2.2	43
41	A toolbox for controlling the properties and functionalisation of hydrazone-based supramolecular hydrogels. <i>Journal of Materials Chemistry B</i> , 2016, 4, 852-858.	2.9	43
42	Out-of-Equilibrium Colloidal Assembly Driven by Chemical Reaction Networks. <i>Langmuir</i> , 2020, 36, 10639-10656.	1.6	43
43	Unbiased Tracking of the Progression of mRNA and Protein Synthesis in Bulk and in Liposome-Confined Reactions. <i>ChemBioChem</i> , 2013, 14, 1963-1966.	1.3	39
44	MARTINI Model for Physisorption of Organic Molecules on Graphite. <i>Journal of Physical Chemistry C</i> , 2013, 117, 15623-15631.	1.5	39
45	Programmed Morphological Transitions of Multisegment Assemblies by Molecular Chaperone Analogues. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 12285-12289.	7.2	38
46	Charge transfer versus molecular conductance: molecular orbital symmetry turns quantum interference rules upside down. <i>Chemical Science</i> , 2015, 6, 4196-4206.	3.7	38
47	Self-Healing Injectable Polymer Hydrogel via Dynamic Thiol-Alkynone Double Addition Cross-Links. <i>ACS Macro Letters</i> , 2020, 9, 776-780.	2.3	36
48	Synthesis of End-Functionalized Polyanilines. <i>Macromolecules</i> , 2008, 41, 9930-9933.	2.2	33
49	Conditional Copper-Catalyzed Azide-Alkyne Cycloaddition by Catalyst Encapsulation. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 9340-9344.	7.2	33
50	Negatively Charged Lipid Membranes Catalyze Supramolecular Hydrogel Formation. <i>Journal of the American Chemical Society</i> , 2016, 138, 8670-8673.	6.6	32
51	Compartmentalizing Supramolecular Hydrogels Using Aqueous Multi-Phase Systems. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 14923-14927.	7.2	32
52	Charge transport in a zinc-porphyrin single-molecule junction. <i>Beilstein Journal of Nanotechnology</i> , 2011, 2, 714-719.	1.5	31
53	Organocatalytic Control over a Fuel-Driven Transient Esterification Network**. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 20604-20611.	7.2	30
54	Phosphoric Acids as Amplifiers of Molecular Chirality in Liquid Crystalline Media. <i>Organic Letters</i> , 2006, 8, 1331-1334.	2.4	28

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55	Supramolecular Protein Immobilization on Lipid Bilayers. <i>Chemistry - A European Journal</i> , 2015, 21, 18466-18473.	1.7	26
56	Synthesis of a Double-€Network Supramolecular Hydrogel by Having One Network Catalyse the Formation of the Second. <i>Chemistry - A European Journal</i> , 2017, 23, 2018-2021.	1.7	23
57	Catalytic control over the formation of supramolecular materials. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 6292-6296.	1.5	22
58	Crosslinker-€Induced Effects on the Gelation Pathway of a Low Molecular Weight Hydrogel. <i>Advanced Materials</i> , 2017, 29, 1603769.	11.1	21
59	The relationship between molecular structure and electronic properties in dicyanovinyl substituted acceptor-donor-acceptor chromophores. <i>Tetrahedron</i> , 2017, 73, 4994-5004.	1.0	21
60	Chemical signal activation of an organocatalyst enables control over soft material formation. <i>Nature Communications</i> , 2017, 8, 879.	5.8	21
61	Introduction of Curvature in Amphipathic Oligothiophenes for Defined Aggregate Formation. <i>Chemistry - A European Journal</i> , 2010, 16, 13417-13428.	1.7	19
62	Selective activation of organocatalysts by specific signals. <i>Chemical Science</i> , 2018, 9, 5999-6005.	3.7	18
63	Fuel-driven macromolecular coacervation in complex coacervate core micelles. <i>Chemical Science</i> , 2022, 13, 4533-4544.	3.7	18
64	Platinum-nanogaps for single-molecule electronics: room-temperature stability. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 14297.	1.3	17
65	Control over the formation of supramolecular material objects using reaction-€diffusion. <i>Soft Matter</i> , 2019, 15, 4276-4283.	1.2	17
66	Single-molecule functionality in electronic components based on orbital resonances. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 12849-12866.	1.3	17
67	The Lost Work in Dissipative Self-Assembly. <i>International Journal of Thermophysics</i> , 2013, 34, 1229-1238.	1.0	16
68	Different Mechanisms for Hole and Electron Transfer along Identical Molecular Bridges: The Importance of the Initial State Delocalization. <i>Journal of Physical Chemistry A</i> , 2014, 118, 3891-3898.	1.1	16
69	A Fuel-€Driven Chemical Reaction Network Based on Conjugate Addition and Elimination Chemistry. <i>ChemSystemsChem</i> , 2020, 2, e1900028.	1.1	15
70	Indoline Catalyzed Acylhydrazone/Oxime Condensation under Neutral Aqueous Conditions. <i>Organic Letters</i> , 2020, 22, 6035-6040.	2.4	15
71	On the use of catalysis to bias reaction pathways in out-of-equilibrium systems. <i>Chemical Science</i> , 2021, 12, 4484-4493.	3.7	15
72	Design of an efficient coherent multi-site single-molecule rectifier. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 29187-29194.	1.3	14

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73	Compartmentalizing Supramolecular Hydrogels Using Aqueous Multi-phase Systems. <i>Angewandte Chemie</i> , 2017, 129, 15119-15123.	1.6	14
74	Biomimetic Strain-Stiffening Self-Assembled Hydrogels. <i>Angewandte Chemie</i> , 2020, 132, 4860-4864.	1.6	14
75	Transient Host-Guest Complexation To Control Catalytic Activity. <i>Journal of the American Chemical Society</i> , 2022, 144, 9465-9471.	6.6	14
76	Tuneable Control of Organocatalytic Activity through Host-Guest Chemistry. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 14022-14029.	7.2	13
77	Self-assembly behaviour of conjugated terthiophenesurfactants in water. <i>New Journal of Chemistry</i> , 2011, 35, 558-567.	1.4	12
78	Computational design of donor-bridge-acceptor systems exhibiting pronounced quantum interference effects. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 6773-6779.	1.3	12
79	Photo cleavable thioacetal block copolymers for controlled release. <i>Polymer Chemistry</i> , 2021, 12, 3612-3618.	1.9	12
80	Synthesis of 1,2-biphenylethane based single-molecule diodes. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 2439-2443.	1.5	11
81	Ionizing Radiation-Induced Release from Poly(μ -caprolactone- <i>b</i> -ethylene glycol) Micelles. <i>ACS Applied Polymer Materials</i> , 2021, 3, 968-975.	2.0	11
82	Insulator-protected mechanically controlled break junctions for measuring single-molecule conductance in aqueous environments. <i>Applied Physics Letters</i> , 2016, 109, .	1.5	10
83	Organocatalytic Control over a Fuel-Driven Transient Esterification Network**. <i>Angewandte Chemie</i> , 2020, 132, 20785-20792.	1.6	10
84	Thioanisole ester based logic gate cascade to control ROS-triggered micellar degradation. <i>Polymer Chemistry</i> , 2022, 13, 2383-2390.	1.9	9
85	Supramolecular Gluing of Polymeric Hydrogels. <i>ChemNanoMat</i> , 2018, 4, 772-775.	1.5	8
86	Transient supramolecular hydrogels formed by catalytic control over molecular self-assembly. <i>Soft Matter</i> , 2020, 16, 9406-9409.	1.2	8
87	Conditional Copper-Catalyzed Azide-Alkyne Cycloaddition by Catalyst Encapsulation. <i>Angewandte Chemie</i> , 2020, 132, 9426-9430.	1.6	8
88	Light-Sensitive Phenacyl Crosslinked Dextran Hydrogels for Controlled Delivery**. <i>Chemistry - A European Journal</i> , 2022, 28, .	1.7	8
89	Designing new symmetrical facial oligothiophene amphiphiles. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 8435.	1.5	7
90	Gamma radiation induced contraction of alkyne modified polymer hydrogels. <i>Macromolecular Materials and Engineering</i> , 0, , 2100623.	1.7	4

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91	Molecular Patterning at a Liquid/Solid Interface: The Foldamer Approach. <i>Langmuir</i> , 2011, 27, 13598-13605.	1.6	2
92	Permanent Electrochemical Doping of Quantum Dot Films through Photopolymerization of Electrolyte Ions. <i>Chemistry of Materials</i> , 2022, 34, 4019-4028.	3.2	1
93	PROFILE: Early Excellence in Physical Organic Chemistry. <i>Journal of Physical Organic Chemistry</i> , 2013, 26, 287-288.	0.9	0
94	Innenrücktitelbild: Compartmentalizing Supramolecular Hydrogels Using Aqueous Multi-phase Systems (<i>Angew. Chem.</i> 47/2017). <i>Angewandte Chemie</i> , 2017, 129, 15363-15363.	1.6	0
95	Rücktitelbild: Biomimetic Strain-Stiffening Self-Assembled Hydrogels (<i>Angew. Chem.</i> 12/2020). <i>Angewandte Chemie</i> , 2020, 132, 5001-5001.	1.6	0
96	Tuneable Control of Organocatalytic Activity through Host-Guest Chemistry. <i>Angewandte Chemie</i> , 2021, 133, 14141-14148.	1.6	0