

Leonard J Prins

List of Publications by Year in descending order

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105
papers

6,865
citations

66343

42
h-index

60623

81
g-index

121
all docs

121
docs citations

121
times ranked

5719
citing authors

#	ARTICLE	IF	CITATIONS
1	Noncovalent Synthesis Using Hydrogen Bonding. <i>Angewandte Chemie - International Edition</i> , 2001, 40, 2382-2426.	13.8	1,110
2	Complete asymmetric induction of supramolecular chirality in a hydrogen-bonded assembly. <i>Nature</i> , 1999, 398, 498-502.	27.8	446
3	Dissipative self-assembly of vesicular nanoreactors. <i>Nature Chemistry</i> , 2016, 8, 725-731.	13.6	355
4	Energy consumption in chemical fuel-driven self-assembly. <i>Nature Nanotechnology</i> , 2018, 13, 882-889.	31.5	306
5	An enantiomerically pure hydrogen-bonded assembly. <i>Nature</i> , 2000, 408, 181-184.	27.8	293
6	Chemically Fueled Self-Assembly in Biology and Chemistry. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 20120-20143.	13.8	160
7	Thermodynamic Stabilities of Linear and Crinkled Tapes and Cyclic Rosettes in Melamine-Cyanurate Assemblies: A Model Description. <i>Journal of the American Chemical Society</i> , 2001, 123, 7518-7533.	13.7	153
8	Sensing through signal amplification. <i>Chemical Society Reviews</i> , 2011, 40, 4488.	38.1	153
9	Amplification of Chirality: The "Sergeants and Soldiers" Principle Applied to Dynamic Hydrogen-Bonded Assemblies. <i>Journal of the American Chemical Society</i> , 2001, 123, 10153-10163.	13.7	151
10	Self-Assembly of a Catalytic Multivalent Peptide-Nanoparticle Complex. <i>Journal of the American Chemical Society</i> , 2012, 134, 8396-8399.	13.7	150
11	Transient signal generation in a self-assembled nanosystem fueled by ATP. <i>Nature Communications</i> , 2015, 6, 7790.	12.8	112
12	Photoswitchable Catalysis by a Nanozyme Mediated by a Light-Sensitive Cofactor. <i>Journal of the American Chemical Society</i> , 2017, 139, 1794-1797.	13.7	110
13	Convergent and Divergent Noncovalent Synthesis of Metallodendrimers. <i>Journal of the American Chemical Society</i> , 1998, 120, 6240-6246.	13.7	109
14	Self-Assembly of Rodlike Hydrogen-Bonded Nanostructures. <i>Journal of the American Chemical Society</i> , 1999, 121, 7154-7155.	13.7	103
15	Transient self-assembly of molecular nanostructures driven by chemical fuels. <i>Current Opinion in Biotechnology</i> , 2017, 46, 27-33.	6.6	94
16	C3-Symmetric Ti(IV) Triphenolate Amino Complexes as Sulfoxidation Catalysts with Aqueous Hydrogen Peroxide. <i>Organic Letters</i> , 2007, 9, 21-24.	4.6	93
17	Control of Structural Isomerism in Noncovalent Hydrogen-Bonded Assemblies Using Peripheral Chiral Information. <i>Journal of the American Chemical Society</i> , 2000, 122, 3617-3627.	13.7	87
18	Detection of Enzyme Activity through Catalytic Signal Amplification with Functionalized Gold Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2011, 50, 2307-2312.	13.8	87

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19	Oligopeptide Foldamers: From Structure to Function. <i>European Journal of Organic Chemistry</i> , 2005, 2005, 969-977.	2.4	86
20	Fuel-Responsive Allosteric DNA-Based Aptamers for the Transient Release of ATP and Cocaine. <i>Angewandte Chemie - International Edition</i> , 2019, 58, 5582-5586.	13.8	86
21	Covalent Capture: Merging Covalent and Noncovalent Synthesis. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 2288-2306.	13.8	84
22	Dissipative Synthetic DNA-Based Receptors for the Transient Loading and Release of Molecular Cargo. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 10489-10493.	13.8	82
23	Dynamic Approaches towards Catalyst Discovery. <i>European Journal of Organic Chemistry</i> , 2010, 2010, 2429-2440.	2.4	81
24	Catalytic Self-Assembled Monolayers on Au Nanoparticles: The Source of Catalysis of a Transphosphorylation Reaction. <i>Chemistry - A European Journal</i> , 2011, 17, 4879-4889.	3.3	81
25	Substrate-Induced Self-Assembly of Cooperative Catalysts. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 16469-16474.	13.8	76
26	Dissipative DNA nanotechnology. <i>Nature Chemistry</i> , 2022, 14, 600-613.	13.6	72
27	Multivalent Interactions Regulate Signal Transduction in a Self-Assembled Hg ²⁺ Sensor. <i>Journal of the American Chemical Society</i> , 2014, 136, 11288-11291.	13.7	71
28	Emergence of Complex Chemistry on an Organic Monolayer. <i>Accounts of Chemical Research</i> , 2015, 48, 1920-1928.	15.6	70
29	Metallo-dendrimers as Transphosphorylation Catalysts. <i>Journal of the American Chemical Society</i> , 2007, 129, 6982-6983.	13.7	65
30	Catalytic self-assembled monolayers on gold nanoparticles. <i>New Journal of Chemistry</i> , 2012, 36, 1931.	2.8	63
31	Enhanced catalytic activity under non-equilibrium conditions. <i>Nature Nanotechnology</i> , 2020, 15, 868-874.	31.5	60
32	Transient DNA-Based Nanostructures Controlled by Redox Inputs. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 13238-13245.	13.8	60
33	Hydrolytic Metallo-Nanozymes: From Micelles and Vesicles to Gold Nanoparticles. <i>Molecules</i> , 2016, 21, 1014.	3.8	56
34	Kinetic Stabilities of Double, Tetra-, and Hexarosette Hydrogen-Bonded Assemblies. <i>Journal of Organic Chemistry</i> , 2002, 67, 4808-4820.	3.2	52
35	Tripodal, Cooperative, and Allosteric Transphosphorylation Metallocatalysts. <i>Journal of Organic Chemistry</i> , 2007, 72, 376-385.	3.2	52
36	Pattern-based sensing of nucleotides with functionalized gold nanoparticles. <i>Chemical Communications</i> , 2013, 49, 469-471.	4.1	52

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37	Chiral Nanozymesâ€“Gold Nanoparticleâ€Based Transphosphorylation Catalysts Capable of Enantiomeric Discrimination. <i>Chemistry - A European Journal</i> , 2016, 22, 7028-7032.	3.3	52
38	Origin of the Dendritic Effect in Multivalent Enzyme-Like Catalysts. <i>Journal of the American Chemical Society</i> , 2008, 130, 5699-5709.	13.7	50
39	Self-assembly and selective exchange of oligoanions on the surface of monolayer protected Au nanoparticles in water. <i>Chemical Communications</i> , 2012, 48, 1916.	4.1	50
40	Fuelâ€Selective Transient Activation of Nanosystems for Signal Generation. <i>Angewandte Chemie - International Edition</i> , 2018, 57, 1611-1615.	13.8	50
41	Exploiting Neighboringâ€Group Interactions for the Selfâ€Selection of a Catalytic Unit. <i>Angewandte Chemie - International Edition</i> , 2008, 47, 2475-2479.	13.8	49
42	Assessment of the morphology of mixed SAMs on Au nanoparticles using a fluorescent probe. <i>Chemical Communications</i> , 2011, 47, 445-447.	4.1	38
43	Controlling Supramolecular Complex Formation on the Surface of a Monolayer-Protected Gold Nanoparticle in Water. <i>Langmuir</i> , 2013, 29, 7180-7185.	3.5	37
44	ATP-fuelled self-assembly to regulate chemical reactivity in the time domain. <i>Chemical Science</i> , 2020, 11, 1518-1522.	7.4	36
45	Hydrolytic Nanozymes. <i>European Journal of Organic Chemistry</i> , 2020, 2020, 5044-5055.	2.4	36
46	Dissipative Synthetic DNAâ€Based Receptors for the Transient Loading and Release of Molecular Cargo. <i>Angewandte Chemie</i> , 2018, 130, 10649-10653.	2.0	35
47	Effective synthesis of ortho-substituted triphenol amines via reductive amination. <i>Tetrahedron Letters</i> , 2006, 47, 2735-2738.	1.4	33
48	Temporal Control over Transient Chemical Systems using Structurally Diverse Chemical Fuels. <i>Chemistry - A European Journal</i> , 2017, 23, 11549-11559.	3.3	33
49	Substrateâ€Induced Selfâ€Assembly of Cooperative Catalysts. <i>Angewandte Chemie</i> , 2018, 130, 16707-16712.	2.0	33
50	Dissipative Control over the Toeholdâ€Mediated DNA Strand Displacement Reaction. <i>Angewandte Chemie - International Edition</i> , 2022, 61, .	13.8	33
51	Diastereoselective Noncovalent Synthesis of Hydrogen-Bonded Double-Rosette Assemblies. <i>Chemistry - A European Journal</i> , 2002, 8, 2288.	3.3	31
52	Fuelâ€Responsive Allosteric DNAâ€Based Aptamers for the Transient Release of ATP and Cocaine. <i>Angewandte Chemie</i> , 2019, 131, 5638-5642.	2.0	31
53	Zn ²⁺ -Regulated Self-Sorting and Mixing of Phosphates and Carboxylates on the Surface of Functionalized Gold Nanoparticles. <i>Angewandte Chemie - International Edition</i> , 2014, 53, 2104-2109.	13.8	30
54	Fuelâ€Selective Transient Activation of Nanosystems for Signal Generation. <i>Angewandte Chemie</i> , 2018, 130, 1627-1631.	2.0	30

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55	Enantioselective Noncovalent Synthesis of Hydrogen-Bonded Double-Rosette Assemblies. <i>Chemistry - A European Journal</i> , 2002, 8, 2302.	3.3	27
56	Resin-supported catalytic dendrimers as multivalent artificial metallonucleases. <i>Bioorganic and Medicinal Chemistry Letters</i> , 2009, 19, 3816-3820.	2.2	25
57	Catalysis on gold-nanoparticle-passivating monolayers. <i>Current Opinion in Colloid and Interface Science</i> , 2013, 18, 61-69.	7.4	24
58	Chemically Fueled Self-Assembly in Biology and Chemistry. <i>Angewandte Chemie</i> , 2021, 133, 20280-20303.	2.0	24
59	Dynamic combinatorial chemistry on a monolayer protected gold nanoparticle. <i>Chemical Communications</i> , 2015, 51, 5714-5716.	4.1	22
60	Disulfide-Linked Allosteric Modulators for Multi-Cycle Kinetic Control of DNA-Based Nanodevices. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 21058-21063.	13.8	22
61	Ti(IV)/trialkanolamine catalytic polymeric membranes: Preparation, characterization, and use in oxygen transfer reactions. <i>Journal of Catalysis</i> , 2006, 238, 221-231.	6.2	21
62	Reversible Electrochemical Modulation of a Catalytic Nanosystem. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 10737-10740.	13.8	21
63	Nucleotide-Selective Templated Self-Assembly of Nanoreactors under Dissipative Conditions. <i>Angewandte Chemie - International Edition</i> , 2020, 59, 22223-22229.	13.8	21
64	Spontaneous Reorganization of DNA-Based Polymers in Higher Ordered Structures Fueled by RNA. <i>Journal of the American Chemical Society</i> , 2021, 143, 20296-20301.	13.7	21
65	Limitations of the "co-templating" strategy for the detection of a weak noncovalent interaction. <i>Chemical Communications</i> , 2007, , 1340-1342.	4.1	20
66	Real-time monitoring of a dynamic molecular system using ¹ H- ¹³ C HSQC NMR spectroscopy with an optimized ¹³ C window. <i>Chemical Communications</i> , 2008, , 3034.	4.1	20
67	Reorganization of Self-Assembled DNA-Based Polymers using Orthogonally Addressable Building Blocks**. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 12911-12917.	13.8	20
68	Multivalent Cooperative Catalysts. <i>Current Organic Chemistry</i> , 2009, 13, 1050-1064.	1.6	20
69	Ti(IV)-based catalytic membranes for efficient and selective oxidation of secondary amines. <i>Tetrahedron Letters</i> , 2004, 45, 7515-7518.	1.4	18
70	Indirect Optical Analysis of a Dynamic Chemical System. <i>Angewandte Chemie - International Edition</i> , 2009, 48, 4546-4550.	13.8	18
71	Reversible Control over the Valency of a Nanoparticle-Based Supramolecular System. <i>Journal of the American Chemical Society</i> , 2012, 134, 15289-15292.	13.7	18
72	Progressive Local Accumulation of Self-Assembled Nanoreactors in a Hydrogel Matrix through Repetitive Injections of ATP. <i>Journal of the American Chemical Society</i> , 2022, 144, 2010-2018.	13.7	16

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73	Zn ²⁺ -Regulated Self-Sorting and Mixing of Phosphates and Carboxylates on the Surface of Functionalized Gold Nanoparticles. <i>Angewandte Chemie</i> , 2014, 126, 2136-2141.	2.0	15
74	Transient DNA-Based Nanostructures Controlled by Redox Inputs. <i>Angewandte Chemie</i> , 2020, 132, 13340-13347.	2.0	15
75	Catalytic signal amplification for the discrimination of ATP and ADP using functionalised gold nanoparticles. <i>Organic and Biomolecular Chemistry</i> , 2016, 14, 6811-6820.	2.8	12
76	Time-gated fluorescence signalling under dissipative conditions. <i>Chemical Communications</i> , 2020, 56, 13979-13982.	4.1	12
77	Dynamic nanoproteins: self-assembled peptide surfaces on monolayer protected gold nanoparticles. <i>Chemical Communications</i> , 2016, 52, 9387-9390.	4.1	11
78	Distance between Metal Centres Affects Catalytic Efficiency of Dinuclear Co ^{III} Complexes in the Hydrolysis of a Phosphate Diester. <i>European Journal of Organic Chemistry</i> , 2018, 2018, 5375-5381.	2.4	11
79	¹³ C-isotope labelling for the facilitated NMR analysis of a complex dynamic chemical system. <i>Chemical Communications</i> , 2011, 47, 12476.	4.1	10
80	Light-Triggered Thiol-Exchange on Gold Nanoparticles at Low Micromolar Concentrations in Water. <i>Langmuir</i> , 2014, 30, 13831-13836.	3.5	10
81	Spatially controlled clustering of nucleotide-stabilized vesicles. <i>Chemical Communications</i> , 2018, 54, 4818-4821.	4.1	10
82	A modular self-assembled sensing system for heavy metal ions with tunable sensitivity and selectivity. <i>Tetrahedron</i> , 2017, 73, 4950-4954.	1.9	9
83	Disulfide-Linked Allosteric Modulators for Multi-cycle Kinetic Control of DNA-Based Nanodevices. <i>Angewandte Chemie</i> , 2020, 132, 21244-21249.	2.0	9
84	The Advantage of Covalent Capture in the Combinatorial Screening of a Dynamic Library for the Detection of Weak Interactions. <i>European Journal of Organic Chemistry</i> , 2010, 2010, 3858-3866.	2.4	8
85	Catalysis of Transesterification Reactions by a Self-Assembled Nanosystem. <i>International Journal of Molecular Sciences</i> , 2013, 14, 2011-2021.	4.1	8
86	Label-free fluorescence detection of kinase activity using a gold nanoparticle based indicator displacement assay. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 1198-1203.	2.8	8
87	Fully symmetrical functionalization of multivalent scaffold molecules on solid support. <i>Tetrahedron</i> , 2006, 62, 11670-11674.	1.9	7
88	Determination of the activity of heterofunctionalized catalysts from mixtures. <i>New Journal of Chemistry</i> , 2006, 30, 1493.	2.8	7
89	Nucleotide-Selective Templated Self-Assembly of Nanoreactors under Dissipative Conditions. <i>Angewandte Chemie</i> , 2020, 132, 22407-22413.	2.0	7
90	A multivalent HIV-1 fusion inhibitor based on small helical foldamers. <i>Tetrahedron</i> , 2012, 68, 4346-4352.	1.9	6

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91	Stepwise Hierarchical Self-Assembly of Supramolecular Amphiphiles into Higher-Order Three-Dimensional Nanostructures. <i>ChemNanoMat</i> , 2018, 4, 821-830.	2.8	6
92	Dynamic covalent capture of hydrazides by a phosphonate-target immobilized on resin. <i>Organic and Biomolecular Chemistry</i> , 2013, 11, 6580.	2.8	5
93	Development of an Enzyme Mimic Using Self-Selection. <i>Israel Journal of Chemistry</i> , 2013, 53, 122-126.	2.3	5
94	Orthogonal Sensing of Small Molecules Using a Modular Nanoparticle-Based Assay. <i>ChemNanoMat</i> , 2016, 2, 489-493.	2.8	5
95	Self-Assembled Multivalent Ag-SR Coordination Polymers with Phosphatase-Like Activity. <i>Chemistry - A European Journal</i> , 2021, 27, 7646-7650.	3.3	5
96	Functionalization of Tripodal Scaffold Molecules on Solid Support. <i>European Journal of Organic Chemistry</i> , 2008, 2008, 3559-3568.	2.4	4
97	Thread and cut. <i>Nature Chemistry</i> , 2013, 5, 899-900.	13.6	3
98	Reorganization of Self-Assembled DNA-Based Polymers using Orthogonally Addressable Building Blocks**. <i>Angewandte Chemie</i> , 2021, 133, 13021-13027.	2.0	3
99	Reversible Electrochemical Modulation of a Catalytic Nanosystem. <i>Angewandte Chemie</i> , 2016, 128, 10895-10898.	2.0	2
100	Template-Dependent (Ir)reversibility of Noncovalent Synthesis Pathways. <i>ChemSystemsChem</i> , 2020, 2, e1900063.	2.6	2
101	Dissipative Control over the Toehold-Mediated DNA Strand Displacement Reaction. <i>Angewandte Chemie</i> , 2022, 134, .	2.0	1
102	Frontispiece: Chiral Nanozymes-Gold Nanoparticle-Based Transphosphorylation Catalysts Capable of Enantiomeric Discrimination. <i>Chemistry - A European Journal</i> , 2016, 22, .	3.3	0
103	Titelbild: Dissipative Synthetic DNA-Based Receptors for the Transient Loading and Release of Molecular Cargo (<i>Angew. Chem.</i> 33/2018). <i>Angewandte Chemie</i> , 2018, 130, 10934-10934.	2.0	0
104	Titelbild: Fuel-Responsive Allosteric DNA-Based Aptamers for the Transient Release of ATP and Cocaine (<i>Angew. Chem.</i> 17/2019). <i>Angewandte Chemie</i> , 2019, 131, 5828-5828.	2.0	0
105	Titelbild: Transient DNA-Based Nanostructures Controlled by Redox Inputs (<i>Angew. Chem.</i> 32/2020). <i>Angewandte Chemie</i> , 2020, 132, 13225-13225.	2.0	0