

# Lorenz Walder

## List of Publications by Year in descending order

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67  
papers

2,303  
citations

201385

27  
h-index

223531

46  
g-index

73  
all docs

73  
docs citations

73  
times ranked

2772  
citing authors

#	ARTICLE	IF	CITATIONS
1	Long-Lived Photoinduced Charge Separation and Redox-Type Photochromism on Mesoporous Oxide Films Sensitized by Molecular Dyads. <i>Journal of the American Chemical Society</i> , 1999, 121, 1324-1336.	6.6	253
2	Stainless steel made to rust: a robust water-splitting catalyst with benchmark characteristics. <i>Energy and Environmental Science</i> , 2015, 8, 2685-2697.	15.6	180
3	Surface Oxidation of Stainless Steel: Oxygen Evolution Electrocatalysts with High Catalytic Activity. <i>ACS Catalysis</i> , 2015, 5, 2671-2680.	5.5	153
4	6-Peroxo-6-Zirconium Crown and Its Hafnium Analogue Embedded in a Triangular Polyanion: $[M_6(O_2)_6(OH)_6](^{3-}SiW_{10}O_{36})_3$ (M = Zr, Hf). <i>Journal of the American Chemical Society</i> , 2008, 130, 6696-6697.	6.8	188
5	Synthesis and reactions of porphine-type metal complexes. 8. Carbon-carbon bond formation catalyzed by vitamin B12 and a vitamin B12 model compound. Electrosynthesis of bicyclic ketones by 1,4 addition. <i>Journal of the American Chemical Society</i> , 1980, 102, 3642-3644.	6.6	105
6	Electro-Oxidation of Ni <sub>42</sub> Steel: A Highly Active Bifunctional Electrocatalyst. <i>Advanced Functional Materials</i> , 2016, 26, 6402-6417.	7.8	90
7	Reactive Zr <sup>IV</sup> and Hf <sup>IV</sup> Butterfly Peroxides on Polyoxometalate Surfaces: Bridging the Gap between Homogeneous and Heterogeneous Catalysis. <i>Chemistry - A European Journal</i> , 2011, 17, 8371-8378.	1.7	77
8	Peroxo-Zr/Hf-Containing Undecatungstosilicates and -Germanates. <i>Inorganic Chemistry</i> , 2010, 49, 7-9.	1.9	75
9	Generation-Dependent Intramolecular CT Complexation in a Dendrimer Electron Sponge Consisting of a Viologen Skeleton. <i>Angewandte Chemie - International Edition</i> , 2000, 39, 806-809.	7.2	60
10	SN <sub>2</sub> or Electron Transfer?? A new technique discriminates the mechanisms of oxidative addition of alkyl halides to corrinato- and porphyrinatocobalt(I). <i>Helvetica Chimica Acta</i> , 1992, 75, 995-1011.	1.0	52
11	Oxidized Mild Steel S235: An Efficient Anode for Electrocatalytically Initiated Water Splitting. <i>ChemSusChem</i> , 2015, 8, 3099-3110.	3.6	50
12	Poly(vinylferrocene)-Reduced Graphene Oxide as a High Power/High Capacity Cathodic Battery Material. <i>Advanced Energy Materials</i> , 2016, 6, 1600108.	10.2	48
13	Asymmetric Catalysis by Vitamin B12. The isomerization of achiral epoxides to optically active allylic alcohols. <i>Helvetica Chimica Acta</i> , 1988, 71, 1073-1078.	1.0	43
14	High Performance Poly(viologen)-Graphene Nanocomposite Battery Materials with Puff Paste Architecture. <i>ACS Nano</i> , 2017, 11, 8730-8740.	7.3	43
15	Synthesis of Nonsymmetrically N,N-Diaryl-Substituted 4,4'-Bipyridinium Salts with Redox-Tunable and Titanium Dioxide (TiO <sub>2</sub> )-Anchoring Properties. <i>Helvetica Chimica Acta</i> , 2005, 88, 3200-3209.	1.0	42
16	Molecular Suppression of the Polymerization of Viologens (=4,4'-Bipyridinium Derivatives) Attached to Nanocrystalline Titanium Dioxide Thin-Film Electrodes. <i>Helvetica Chimica Acta</i> , 2000, 83, 181-192.	1.0	40
17	Elucidation of the electron transfer mechanism of marker ions at SAMs with charged head groups. <i>Journal of Electroanalytical Chemistry</i> , 2004, 574, 49-62.	1.9	38
18	Photoinduced electron transfer and redox-type photochromism of a TiO <sub>2</sub> -anchored molecular diad. <i>Chemical Communications</i> , 1996, , 1163-1164.	2.2	37

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19	Active Anion Delivery by Self-Propelled Microswimmers. ACS Nano, 2020, 14, 3434-3441.	7.3	34
20	Influence of the Axial Alkyl Ligand on the Reduction Potential of Alkylcob(III)alamins and Alkylcob(III)yrinates. Helvetica Chimica Acta, 1990, 73, 2225-2241.	1.0	33
21	PolyTEMPO and polyviologen on carbon nanotubes: syntheses, structures and organic battery applications. European Polymer Journal, 2013, 49, 1923-1934.	2.6	33
22	Inkjet Printing as a Flexible Technology for the Deposition of Thermoelectric Composite Structures. Procedia Technology, 2014, 15, 99-106.	1.1	33
23	Oberflächenmodifikation von Kohlenstoff-Elektroden durch Zweikomponenten-Polymere, aufgebaut aus Epoxidharzen und einem Derivat von Vitamin B12. Helvetica Chimica Acta, 1985, 68, 1301-1311.	1.0	32
24	Reductive Cleavage of the Co,Câ€B Bond of [(Methoxycarbonyl)methyl]cobalamin. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1988, 92, 1225-1231.	0.9	28
25	Tuning the Hydrophilic, Hydrophobic, and Ion Exchange Properties of Mesoporous TiO <sub>2</sub> . Langmuir, 2009, 25, 5371-5379.	1.6	28
26	A unique ferredoxin acts as a player in the low-iron response of photosynthetic organisms. Proceedings of the National Academy of Sciences of the United States of America, 2018, 115, E12111-E12120.	3.3	28
27	Charge Propagation in â€œlon Channel Sensorsâ€•Based on Protein-Modified Electrodes and Redox Marker Ions. Journal of the American Chemical Society, 2005, 127, 11486-11496.	6.6	27
28	Liquid Density Response of a Quartz Crystal Microbalance Modified with Mesoporous Titanium Dioxide. Analytical Chemistry, 1999, 71, 3305-3310.	3.2	26
29	Viologen-based benzylic dendrimers: selective synthesis of 3,5-bis(hydroxymethyl)benzylbromide and conformational analysis of the corresponding viologen dendrimer subunit. Tetrahedron Letters, 2010, 51, 2188-2192.	0.7	26
30	Pore size and surface charge control in mesoporous TiO <sub>2</sub> using post-grafted SAMs. Physical Chemistry Chemical Physics, 2010, 12, 1473.	1.3	25
31	Mechanism of the light-assisted nucleophilic acylation of activated olefins catalyzed by vitamin B12. Organometallics, 1987, 6, 1606-1613.	1.1	24
32	Inkjet-Printed Thiol Self-Assembled Monolayer Structures on Gold: Quality Control and Microarray Electrode Fabrication. Langmuir, 2008, 24, 9110-9117.	1.6	22
33	Poly(vitamin B12)-modified carbon electrodes used as a preconcentration-type sensor for alkylating agents. Analytical Chemistry, 1990, 62, 759-766.	3.2	21
34	Covalent layer-by-layer type modification of electrodes using ferrocene derivatives and crosslinkers. Electrochimica Acta, 2004, 49, 4679-4685.	2.6	20
35	The Metallocene Battery: Ultrafast Electron Transfer Self Exchange Rate Accompanied by a Harmonic Height Breathing. Angewandte Chemie - International Edition, 2021, 60, 13554-13558.	7.2	20
36	Galvinoxyl monolayers on Au(111) studied by STM, EPR, and cyclic voltammetry. Physical Review B, 2006, 74, .	1.1	19

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37	Triply Branched Viologen Stars: Synthesis and Polymerization by Peripheral Benzyl Coupling. <i>European Journal of Organic Chemistry</i> , 2012, 2012, 913-921.	1.2	18
38	Shell-by-Shell Inside-Out Complexation of Organic Anions in Flexible and Rigid Pyridinium Dendrimers. <i>Macromolecules</i> , 2011, 44, 8563-8574.	2.2	15
39	Doxorubicin Adsorbed on Carbon Nanotubes: Helical Structure and New Release Trigger. <i>Advanced Materials Interfaces</i> , 2017, 4, 1700649.	1.9	15
40	A Reduction Catalyst Powered by Its Own 10-Electron Battery: Synthesis and properties of a pentaviologen-linked corrinatocobalt complex. <i>Helvetica Chimica Acta</i> , 1992, 75, 90-108.	1.0	14
41	Organic Diodes Based on Redox-Polymer Bilayer-Film-Modified Electrodes. <i>Helvetica Chimica Acta</i> , 1994, 77, 351-371.	1.0	14
42	Dye sensitized membranes within mesoporous TiO <sub>2</sub> : Photocurrents in aqueous solution. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2010, 216, 35-43.	2.0	14
43	Reduktive Co-Alkylierung von Heptamethyl-cobyrinat mit dem Methylthiomalonat (S)-Methyl-3-bromo-2-[(ethylthio) carbonyl]-2-methylpropanoat. <i>Helvetica Chimica Acta</i> , 1990, 73, 1659-1668.	1.0	13
44	Oligo-viologen/SWCNT nano-composites: Preparation and characterization. <i>Physica Status Solidi (B): Basic Research</i> , 2012, 249, 2395-2398.	0.7	13
45	Basic characterization and investigation of a fluorinated terpolymer in pure state and in mixtures with kaolinite at solid interphases of thin films prepared by facile solution cast and nonsolvent methods. <i>High Performance Polymers</i> , 2014, 26, 779-789.	0.8	13
46	Synthesis, Structure, and Redox Chemistry of a Vitamin-B12s-Related Macrocyclic Complex of Cobalt(I). <i>Helvetica Chimica Acta</i> , 1984, 67, 1801-1817.	1.0	12
47	Photocurrents at polymeric triads: sensitized redox cascades under forward and reverse bias. <i>Journal of the Chemical Society Chemical Communications</i> , 1994, , 51.	2.0	12
48	Phototriggered NO and CN release from [Fe(CN) <sub>5</sub> NO] <sup>2-</sup> molecules electrostatically attached to TiO <sub>2</sub> surfaces. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 3283.	1.3	12
49	Facile Synthesis of the High-Pressure Polymorph of Nanocrystalline LiFePO <sub>4</sub> at Ambient Pressure and Low Temperature. <i>Chemistry of Materials</i> , 2012, 24, 633-635.	3.2	12
50	Modification of Mesoporous TiO <sub>2</sub> Electrodes with Cross-Linkable B12 Derivatives. <i>Langmuir</i> , 2006, 22, 5544-5547.	1.6	11
51	Nanostructured TiO <sub>2</sub> semiconductor electrodes modified with surface-attached viologens: applications for displays and smart windows. , 1995, 2531, 60.		8
52	Synthesis of Vitamin B12 Derivatives with a Peripheral Metal Binding Site. <i>Helvetica Chimica Acta</i> , 1997, 80, 1183-1189.	1.0	8
53	A New 2,2'-Bipyridinium Salt with Pink Electrochromism for the Modification of Nanocrystalline TiO <sub>2</sub> -Electrodes. <i>Chemistry Letters</i> , 1998, 27, 815-816.	0.7	8
54	Alkylene-bridged viologen dendrimers: versatile cell delivery tools with biosensing properties. <i>Organic and Biomolecular Chemistry</i> , 2014, 12, 9583-9591.	1.5	7

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55	Modification of carbon electrodes by vitamin B12 -polymers. Makromolekulare Chemie Macromolecular Symposia, 1987, 8, 225-233.	0.6	6
56	Trimethylenedipyridinium Dendrimers: Synthesis and Sequential Complexation of Anthraquinone Disulfonate in Molecular Shells. Macromolecules, 2010, 43, 9248-9256.	2.2	5
57	TEMPO-labeled Viologen Dendrimers: Synthesis, Characterization, and Preliminary Distance Measurements. Macromolecular Chemistry and Physics, 2017, 218, 1700142.	1.1	4
58	The Metallocene Battery: Ultrafast Electron Transfer Self Exchange Rate Accompanied by a Harmonic Height Breathing. Angewandte Chemie, 2021, 133, 13666-13670.	1.6	3
59	Flexible, Self-Supported Anode for Organic Batteries with a Matched Hierarchical Current Collector System for Boosted Current Density. Small, 2021, 17, 2103885.	5.2	3
60	Materials and systems for polymer-based Metallocene batteries: Status and challenges. Polymer, 2022, 245, 124658.	1.8	3
61	Interaction of Viologens with Nucleic Acid G-Tetrad. Langmuir, 2008, 24, 5641-5643.	1.6	2
62	Evaluation and Elucidation of DNA-Containing Viologen Dendrimer Complex Formation. European Journal of Organic Chemistry, 2016, 2016, 1897-1907.	1.2	2
63	Photo-Electrochemical Device Enabling Luminescence Switching of LaPO <sub>4</sub> :Ce,Tb Nanoparticle Layers. Advanced Optical Materials, 2021, 9, 2001891.	3.6	2
64	P-118: High Resolution Electrochromic Displays for E-Readers. Digest of Technical Papers SID International Symposium, 2005, 36, 750.	0.1	1
65	Hybrid sheds new light on smart windows. Physics World, 1997, 10, 23-23.	0.0	0
66	Oxygen Plasma Effects on Zero Resistance Behavior of Yb,Er-doped YBCO (123) Based Superconductors. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2014, 640, 1900-1906.	0.6	0
67	Drug Delivery: Doxorubicin Adsorbed on Carbon Nanotubes: Helical Structure and New Release Trigger (Adv. Mater. Interfaces 19/2017). Advanced Materials Interfaces, 2017, 4, .	1.9	0