Andrea Sartorel

List of Publications by Year
in descending order

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88 papers	5,379 citations	87888 38 h-index	82547 72 g-index
106 all docs	106 docs citations	106 times ranked	4816 citing authors

#	Article	IF	Citations
1	Polyoxometalate Embedding of a Tetraruthenium(IV)-oxo-core by Template-Directed Metalation of [Î³-SiW₁₀O₃₆]^{8â^'}: A Totally Inorganic Oxygen-Evolving Catalyst. Journal of the American Chemical Society, 2008, 130, 5006-5007.	13.7	571
2	Efficient water oxidation at carbon nanotubeâ€"polyoxometalate electrocatalytic interfaces. Nature Chemistry, 2010, 2, 826-831.	13.6	459
3	Tetrametallic molecular catalysts for photochemical water oxidation. Chemical Society Reviews, 2013, 42, 2262-2280.	38.1	310
4	Photocatalytic Water Oxidation: Tuning Light-Induced Electron Transfer by Molecular Co₄O₄ Cores. Journal of the American Chemical Society, 2012, 134, 11104-11107.	13.7	196
5	Water Oxidation at a Tetraruthenate Core Stabilized by Polyoxometalate Ligands: Experimental and Computational Evidence To Trace the Competent Intermediates. Journal of the American Chemical Society, 2009, 131, 16051-16053.	13.7	195
6	Photocatalytic Water Oxidation by a Mixedâ€Valent Mn^{III}₃Mn^{IV}O₃ Manganese Oxo Core that Mimics the Natural Oxygenâ€Evolving Center. Angewandte Chemie - International Edition, 2014, 53, 11182-11185.	13.8	180
7	Ruthenium polyoxometalate water splitting catalyst: very fast hole scavenging from photogenerated oxidants. Chemical Communications, 2010, 46, 3152.	4.1	165
8	Photo-induced water oxidation with tetra-nuclear ruthenium sensitizer and catalyst: A unique 4 Ã— 4 ruthenium interplay triggering high efficiency with low-energy visible light. Chemical Communications, 2010, 46, 4725.	4.1	162
9	Hierarchical organization of perylene bisimides and polyoxometalates for photo-assisted water oxidation. Nature Chemistry, 2019, 11, 146-153.	13.6	132
10	Photoinduced water oxidation using dendrimeric Ru(II) complexes as photosensitizers. Coordination Chemistry Reviews, 2011, 255, 2594-2601.	18.8	118
11	Chiral Strandbergâ€Type Molybdates [(RPO₃)₂Mo₅O₁₅]^{2â^'} as Molecular Gelators: Selfâ€Assembled Fibrillar Nanostructures with Enhanced Optical Activity. Angewandte Chemie - International Edition, 2008, 47, 7275-7279.	13.8	113
12	Hybrid Polyoxotungstates as Second-Generation POM-Based Catalysts for Microwave-Assisted H2O2Activation. Organic Letters, 2006, 8, 3671-3674.	4.6	110
13	Light-driven wateroxidation with a molecular tetra-cobalt(iii) cubanecluster. Faraday Discussions, 2012, 155, 177-190.	3.2	110
14	Photoinduced Water Oxidation by a Tetraruthenium Polyoxometalate Catalyst: Ion-pairing and Primary Processes with Ru(bpy)₃²⁺ Photosensitizer. Inorganic Chemistry, 2012, 51, 7324-7331.	4.0	98
15	Shaping the beating heart of artificial photosynthesis: oxygenic metal oxide nano-clusters. Energy and Environmental Science, 2012, 5, 5592.	30.8	93
16	Knitting the Catalytic Pattern of Artificial Photosynthesis to a Hybrid Graphene Nanotexture. ACS Nano, 2013, 7, 811-817.	14.6	93
17	Is [Co4(H2O)2(Î±-PW9O34)2]10â^' a genuine molecular catalyst in photochemical water oxidation? Answers from time-resolved hole scavenging experiments. Chemical Communications, 2012, 48, 8808.	4.1	90
18	Light driven water oxidation by a single site cobalt salophen catalyst. Chemical Communications, 2013, 49, 9941.	4.1	83

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19	Water oxidation surface mechanisms replicated by a totally inorganic tetraruthenium–oxo molecular complex. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 4917-4922.	7.1	80
20	Reactive Zr^{IV} and Hf^{IV} Butterfly Peroxides on Polyoxometalate Surfaces: Bridging the Gap between Homogeneous and Heterogeneous Catalysis. Chemistry - A European Journal, 2011, 17, 8371-8378.	3.3	77
21	Peroxo-Zr/Hf-Containing Undecatungstosilicates and -Germanates. Inorganic Chemistry, 2010, 49, 7-9.	4.0	75
22	Microwave–Assisted Rapid Incorporation of Ruthenium into Lacunary Keggin–Type Polyoxotungstates: One–Step Synthesis, ⁹⁹ Ru, ¹⁸³ W NMR Characterization and Catalytic Activity of [PW ₁₁ O ₃₉ Ru ^{II} (DMSO)] ^{5–}. European Journal of Inorganic Chemistry, 2000, 2000, 17-20.	2.0	73
23	Tuning Iridium Photocatalysts and Light Irradiation for Enhanced CO₂ Reduction. ACS Catalysis, 2017, 7, 154-160.	11.2	73
24	Asymmetric Tetraprotonation of Î³-[(SiO4)W10O32]8â¯ Triggers a Catalytic Epoxidation Reaction: Perspectives in the Assignment of the Active Catalyst. Angewandte Chemie - International Edition, 2007, 46, 3255-3258.	13.8	72
25	Enhanced Electrocatalytic Oxygen Evolution in Au–Fe Nanoalloys. Angewandte Chemie - International Edition, 2017, 56, 6589-6593.	13.8	72
26	Tailored Functionalization of Carbon Nanotubes for Electrocatalytic Water Splitting and Sustainable Energy Applications. ChemSusChem, 2011, 4, 1447-1451.	6.8	64
27	Bio-inspired oxidations with polyoxometalate catalysts. Journal of Molecular Catalysis A, 2006, 251, 93-99.	4.8	62
28	Electrospray Behavior of Lacunary Keggin-Type Polyoxotungstates [XW11O39]p (X = Si, P): Mass Spectrometric Evidence for a Concentration-Dependent Incorporation of an MOn+ (M = WVI, MoVI, VV) Unit into the Polyoxometalate Vacancy. European Journal of Inorganic Chemistry, 2003, 2003, 699-704.	2.0	58
29	Fast Catalytic Epoxidation with H₂O₂ and [Î³-SiW₁₀O₃₆(PhPO)₂]⁴⁻ in Ionic Liquids under Microwave Irradiation. Journal of Organic Chemistry, 2007, 72, 8954-8957.	3.2	55
30	Polyoxometalate–Based N–Heterocyclic Carbene (NHC) Complexes for Palladium–Mediated Cï¿¿C Coupling and Chloroaryl Dehalogenation Catalysis. Chemistry - A European Journal, 2010, 16, 10662-10666.	3.3	55
31	Salophen and salen oxo vanadium complexes as catalysts of sulfides oxidation with H2O2: Mechanistic insights. Catalysis Today, 2012, 192, 44-55.	4.4	55
32	Surface Immobilization of a Tetra-Ruthenium Substituted Polyoxometalate Water Oxidation Catalyst Through the Employment of Conducting Polypyrrole and the Layer-by-Layer (LBL) Technique. ACS Applied Materials & Interfaces, 2014, 6, 8022-8031.	8.0	54
33	Optically Active Polyoxotungstates Bearing Chiral Organophosphonate Substituents. European Journal of Inorganic Chemistry, 2009, 2009, 5164-5174.	2.0	49
34	Naphthochromenones: Organic Bimodal Photocatalysts Engaging in Both Oxidative and Reductive Quenching Processes. Angewandte Chemie - International Edition, 2020, 59, 1302-1312.	13.8	48
35	Oxygenic polyoxometalates: a new class of molecular propellers. Chemical Communications, 2011, 47, 1716.	4.1	47
36	N–Heterocyclic Dicarbene Iridium(III) Catalysts Enabling Water Oxidation under Visible Light Irradiation. European Journal of Inorganic Chemistry, 2014, 2014, 665-675.	2.0	44

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37	Heterogeneous and Homogeneous Routes in Water Oxidation Catalysis Starting from Cu^{II} Complexes with Tetraaza Macrocyclic Ligands. Chemistry - an Asian Journal, 2016, 11, 1281-1287.	3.3	43
38	Photo-assisted water oxidation by high-nuclearity cobalt-oxo cores: tracing the catalyst fate during oxygen evolution turnover. Green Chemistry, 2017, 19, 2416-2426.	9.0	40
39	Photoinduced hydrogen evolution with new tetradentate cobalt(<scp>ii</scp>) complexes based on the TPMA ligand. Dalton Transactions, 2016, 45, 14764-14773.	3.3	38
40	Relativistic DFT Calculations of Polyoxotungstate 183W NMR Spectra: Insight into their Solution Structure. ChemPhysChem, 2003, 4, 517-519.	2.1	37
41	Hybrid Polyoxometalates: Merging Organic and Inorganic Domains for Enhanced Catalysis and Energy Applications. Israel Journal of Chemistry, 2011, 51, 259-274.	2.3	34
42	Artificial Photosynthesis Challenges: Water Oxidation at Nanostructured Interfaces. Topics in Current Chemistry, 2011, 303, 121-150.	4.0	34
43	Aerobic oxidation of cis-cyclooctene by iron-substituted polyoxotungstates: Evidence for a metal initiated auto-oxidation mechanism. Journal of Molecular Catalysis A, 2007, 262, 36-40.	4.8	32
44	Ironâ€Substituted Polyoxotungstates as Inorganic Synzymes: Evidence for a Biomimetic Pathway in the Catalytic Oxygenation of Catechols. Chemistry - A European Journal, 2009, 15, 7854-7858.	3.3	32
45	Working the Other Way Around: Photocatalytic Water Oxidation Triggered by Reductive Quenching of the Photoexcited Chromophore. Journal of Physical Chemistry C, 2015, 119, 2371-2379.	3.1	29
46	Water oxidation catalysis upon evolution of molecular Co(<scp>iii</scp>) cubanes in aqueous media. Faraday Discussions, 2015, 185, 121-141.	3.2	29
47	Positive graphene by chemical design: tuning supramolecular strategies for functional surfaces. Chemical Communications, 2014, 50, 885-887.	4.1	26
48	Carbon Dioxide Reduction Mediated by Iron Catalysts: Mechanism and Intermediates That Guide Selectivity. ACS Omega, 2020, 5, 21309-21319.	3.5	25
49	Catalytic Strategies for Sustainable Oxidations in Water. Synthesis, 2008, 2008, 1971-1978.	2.3	23
50	Dendron-functionalized multiwalled carbon nanotubes incorporating polyoxometalates for water-splitting catalysis. Pure and Applied Chemistry, 2011, 83, 1529-1542.	1.9	23
51	Organicâ€Inorganic Molecular Nanoâ€Sensors: A Bisâ€Dansylated Tweezerâ€Like Fluoroionophore Integrating a Polyoxometalate Core. European Journal of Organic Chemistry, 2012, 2012, 281-289.	2.4	23
52	Water oxidation electrocatalysis with iron oxide nanoparticles prepared via laser ablation. Journal of Energy Chemistry, 2016, 25, 246-250.	12.9	23
53	Visible Light Driven Photoanodes for Water Oxidation Based on Novel r-GO/Î²-Cu2V2O7/TiO2 Nanorods Composites. Nanomaterials, 2018, 8, 544.	4.1	23
54	Dynamic Motion of Ruâ€Polyoxometalate Ions (POMs) on Functionalized Fewâ€Layer Graphene. Small, 2013, 9, 3922-3927.	10.0	22

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55	A Co(<scp>ii</scp>)â€“Ru(<scp>ii</scp>) dyad relevant to light-driven water oxidation catalysis. Physical Chemistry Chemical Physics, 2014, 16, 12000-12007.	2.8	22
56	A Bioinspired System for Light-Driven Water Oxidation with a Porphyrin Sensitizer and a Tetrametallic Molecular Catalyst. European Journal of Inorganic Chemistry, 2015, 2015, 3467-3477.	2.0	22
57	Cobalt based water oxidation catalysis with photogenerated Ru(bpy) 3 3+ : Different kinetics and competent species starting from a molecular polyoxometalate and metal oxide nanoparticles capped with a bisphosphonate alendronate pendant. Catalysis Today, 2017, 290, 39-50.	4.4	20
58	Mechanistic Insights into Lightâ€Activated Catalysis for Water Oxidation. European Journal of Inorganic Chemistry, 2019, 2019, 2027-2039.	2.0	20
59	Fluorinated Zn^{II} Porphyrins for Dye-Sensitized Aqueous Photoelectrosynthetic Cells. ACS Applied Materials & Interfaces, 2019, 11, 32895-32908.	8.0	19
60	Light-Driven Water Oxidation with the Ir-blue Catalyst and the Ru(bpy)₃²⁺/S₂O₈^{2â€“} Cycle: Photogeneration of Active Dimers, Electron-Transfer Kinetics, and Light Synchronization for Oxygen Evolution with High Quantum Efficiency. Inorganic Chemistry, 2019, 58, 16537-16545.	4.0	19
61	Photoanodes for water oxidation with visible light based on a pentacyclic quinoid organic dye enabling proton-coupled electron transfer. Chemical Communications, 2020, 56, 2248-2251.	4.1	19
62	Ruthenium based photosensitizer/catalyst supramolecular architectures in light driven water oxidation. Inorganica Chimica Acta, 2017, 454, 171-175.	2.4	18
63	H₂O₂ activation by heteropolyacids with defect structures: the case of Î³â€[(XO₄)W₁₀O₃₂]^{nâ^’} (Xâ€‰=â€‰Si, Ge, nâ€‰=â€‰8; Xâ€‰=â€‰	[illegible]	[illegible]
64	Clean rhodium nanoparticles prepared by laser ablation in liquid for high performance electrocatalysis of the hydrogen evolution reaction. Nanoscale Advances, 2019, 1, 4296-4300.	4.6	17
65	Proton coupled electron transfer from Co₃O₄ nanoparticles to photogenerated Ru(bpy)₃³⁺: base catalysis and buffer effect. Sustainable Energy and Fuels, 2018, 2, 1951-1956.	4.9	12
66	Tailored Crafting of Coreâ€“Shell Cobalt-Hydroxides@Polyfluoroaniline Nanostructures with Strongly Coupled Interfaces and Improved Hydrophilicity to Enable Efficient Oxygen Evolution. ACS Sustainable Chemistry and Engineering, 2020, 8, 6127-6133.	6.7	12
67	Oxygenation by Ruthenium Monosubstituted Polyoxotungstates in Aqueous Solution: Experimental and Computational Dissection of a Ru(III)â€“Ru(V) Catalytic Cycle. Chemistry - A European Journal, 2014, 20, 10932-10943.	3.3	11
68	Hydrogen peroxide activation by fluorophilic polyoxotungstates for fast and selective oxygen transfer catalysis. Dalton Transactions, 2016, 45, 14544-14548.	3.3	11
69	Electrochemical Conversion of CO₂ to CO by a Competent Fe^I Intermediate Bearing a Schiff Base Ligand. ChemSusChem, 2020, 13, 4111-4120.	6.8	11
70	Novel iridium complexes with N-heterocyclic dicarbene ligands in light-driven water oxidation catalysis: photon management, ligand effect and catalyst evolution. Dalton Transactions, 2020, 49, 2696-2705.	3.3	11
71	Artificial photosynthesis: photoanodes based on polyquinoid dyes onto mesoporous tin oxide surface. Photochemical and Photobiological Sciences, 2021, 20, 1243-1255.	2.9	10
72	Hydrogen Evolution by Fe^{III} Molecular Electrocatalysts Interconverting between Mono and Diâ€Nuclear Structures in Aqueous Phase. ChemSusChem, 2017, 10, 4430-4435.	6.8	9

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73	Transparent Polymeric Formulations Effective against SARS-CoV-2 Infection. ACS Applied Materials & Interfaces, 2021, 13, 54648-54655.	8.0	9
74	Chelating di(N-heterocyclic carbene) complexes of iridium(III): Structural analysis, electrochemical characterisation and catalytic oxidation of water. Journal of Organometallic Chemistry, 2020, 917, 121260.	1.8	7
75	Photo-induced water oxidation: New photocatalytic processes and materials. Photochemistry, 0, , 274-294.	0.2	7
76	Beyond Water Oxidation: Hybrid, Molecular-Based Photoanodes for the Production of Value-Added Organics. Frontiers in Chemistry, 2022, 10, .	3.6	7
77	Enhanced Electrocatalytic Oxygen Evolution in Auâ€“Fe Nanoalloys. Angewandte Chemie, 2017, 129, 6689-6693.	2.0	5
78	Water Oxidation Catalysis by Molecular Metal-Oxides. Energy Procedia, 2012, 22, 78-87.	1.8	4
79	N-Heterocyclic Dicarbene Iridium(III) Catalysts Enabling Water Oxidation under Visible Light Irradiation. European Journal of Inorganic Chemistry, 2014, 2014, 568-568.	2.0	3
80	Natural and artificial photosynthesis: general discussion. Faraday Discussions, 2015, 185, 187-217.	3.2	3
81	Waterâ€Assisted Concerted Protonâ€Electron Transfer at Co(II)â€Aquo Sites in Polyoxotungstates With Photogenerated Ru III (bpy) 3 3+ Oxidant. ChemPhysChem, 2021, 22, 1208-1218.	2.1	3
82	Microwaveâ€Assisted 1,3â€Dipolar Cycloaddition of Azomethine Ylides to [60]Fullerene: Thermodynamic Control of Bisâ€Addition with Ionic Liquids Additives. European Journal of Organic Chemistry, 2021, 2021, 3545-3551.	2.4	3
83	FeI Intermediates in N2O2 Schiff Base Complexes: Effect of Electronic Character of the Ligand and of the Proton Donor on the Reactivity with Carbon Dioxide. Energies, 2021, 14, 5723.	3.1	3
84	Polyoxometalates Catalysts for Sustainable Oxidations and Energy Applications. , 2014, , 586-630.		2
85	Basicity as a Thermodynamic Descriptor of Carbanions Reactivity with Carbon Dioxide: Application to the Carboxylation of Î±,Î²-Unsaturated Ketones. Frontiers in Chemistry, 2021, 9, 783993.	3.6	2
86	Innentitelbild: Photocatalytic Water Oxidation by a Mixed-Valent MnIII3MnIVO3Manganese Oxo Core that Mimics the Natural Oxygen-Evolving Center (Angew. Chem. 42/2014). Angewandte Chemie, 2014, 126, 11280-11280.	2.0	0
87	Mechanistic Insights into Light-Activated Catalysis for Water Oxidation. European Journal of Inorganic Chemistry, 2019, 2019, 2013-2013.	2.0	0
88	Tracking Ultrafast Charge Separation in a PBI-based Biomimetic Complex for Oxygen Evolution. , 2020, , .		0