Daniel Rentsch

List of Publications by Year in descending order

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76294 85498 5,564 113 40 71 citations h-index g-index papers 117 117 117 7913 citing authors docs citations times ranked all docs

#	Article	IF	CITATIONS
1	Ultralightweight and Flexible Silylated Nanocellulose Sponges for the Selective Removal of Oil from Water. Chemistry of Materials, 2014, 26, 2659-2668.	3.2	511
2	Efficient Far Red Sensitization of Nanocrystalline TiO ₂ Films by an Unsymmetrical Squaraine Dye. Journal of the American Chemical Society, 2007, 129, 10320-10321.	6.6	497
3	Preparation and characterization of water-redispersible nanofibrillated cellulose in powder form. Cellulose, 2010, 17, 19-30.	2.4	254
4	A thermodynamic and experimental study of the conditions of thaumasite formation. Cement and Concrete Research, 2008, 38, 337-349.	4.6	143
5	A highly stable sodium solid-state electrolyte based on a dodeca/deca-borate equimolar mixture. Chemical Communications, 2017, 53, 4195-4198.	2.2	137
6	Wavelength-Selective Light-Responsive DASA-Functionalized Polymersome Nanoreactors. Journal of the American Chemical Society, 2018, 140, 8027-8036.	6.6	137
7	Hydrogenation of 9-ethylcarbazole as a prototype of a liquid hydrogen carrier. International Journal of Hydrogen Energy, 2010, 35, 11609-11621.	3.8	135
8	Alkali-Silica Reaction: the Influence of Calcium on Silica Dissolution and the Formation of Reaction Products. Journal of the American Ceramic Society, 2011, 94, 1243-1249.	1.9	129
9	Bridged DOPO derivatives as flame retardants for PA6. Polymer Degradation and Stability, 2014, 107, 158-165.	2.7	125
10	Advanced Cu-Sn foam for selectively converting CO2 to CO in aqueous solution. Applied Catalysis B: Environmental, 2018, 236, 475-482.	10.8	118
11	Formation of magnesium silicate hydrates (M-S-H). Physics and Chemistry of the Earth, 2017, 99, 142-157.	1.2	114
12	Systematic Exploration of Biotransformation Reactions of Amine-Containing Micropollutants in Activated Sludge. Environmental Science & Environmental S	4.6	111
13	Isomer-Specific Degradation and Endocrine Disrupting Activity of Nonylphenols. Environmental Science &	4.6	107
14	Synthesis of DOPO-Based Phosphonamidates and their Thermal Properties. Industrial & Engineering Chemistry Research, 2014, 53, 2889-2896.	1.8	106
15	Surface Chemistry of Hydrophobic Silica Aerogels. Chemistry of Materials, 2015, 27, 6737-6745.	3.2	100
16	A Lithium Amideâ€Borohydride Solidâ€State Electrolyte with Lithiumâ€Ion Conductivities Comparable to Liquid Electrolytes. Advanced Energy Materials, 2017, 7, 1700294.	10.2	95
17	Transformation of \hat{I}^2 -Lactam Antibacterial Agents during Aqueous Ozonation: Reaction Pathways and Quantitative Bioassay of Biologically-Active Oxidation Products. Environmental Science & Emp; Technology, 2010, 44, 5940-5948.	4.6	92
18	Biotransformation Changes Bioaccumulation and Toxicity of Diclofenac in Aquatic Organisms. Environmental Science & Environment	4.6	91

#	Article	IF	CITATIONS
19	Allâ€inâ€One Cellulose Nanocrystals for 3D Printing of Nanocomposite Hydrogels. Angewandte Chemie - International Edition, 2018, 57, 2353-2356.	7.2	89
20	A Novel Metabolic Pathway for Degradation of 4-Nonylphenol Environmental Contaminants by Sphingomonas xenophaga Bayram. Journal of Biological Chemistry, 2005, 280, 15526-15533.	1.6	87
21	Gasoline composition determined by 1H NMR spectroscopy. Fuel, 2004, 83, 187-193.	3.4	83
22	Thermal decomposition and flammability of rigid PU foams containing some DOPO derivatives and other phosphorus compounds. Journal of Analytical and Applied Pyrolysis, 2017, 124, 219-229.	2.6	81
23	Hydration of a silica fume blended low-alkali shotcrete cement. Physics and Chemistry of the Earth, 2014, 70-71, 3-16.	1.2	80
24	Thermal and chemical aging of model three-way catalyst Pd/Al2O3 and its impact on the conversion of CNG vehicle exhaust. Catalysis Today, 2012, 184, 237-244.	2.2	75
25	Electrocatalytic Reduction of Gaseous CO ₂ to CO on Sn/Cuâ€Nanofiberâ€Based Gas Diffusion Electrodes. Advanced Energy Materials, 2019, 9, 1901514.	10.2	74
26	Aryltriazene Photopolymers for UV-Laser Applications: Improved Synthesis and Photodecomposition Study. Macromolecular Chemistry and Physics, 2007, 208, 277-286.	1.1	68
27	Physico-chemical properties of the new generation IV iron preparations ferumoxytol, iron isomaltoside 1000 and ferric carboxymaltose. BioMetals, 2015, 28, 615-635.	1.8	64
28	Aluminum incorporation into magnesium silicate hydrate (M-S-H). Cement and Concrete Research, 2020, 128, 105931.	4.6	60
29	Reversible hydrogen storage in Mg(BH4)2/carbon nanocomposites. Journal of Materials Chemistry A, 2013, 1, 11177.	5.2	57
30	Controlled Silylation of Nanofibrillated Cellulose in Water: Reinforcement of a Model Polydimethylsiloxane Network. ChemSusChem, 2015, 8, 2681-2690.	3.6	57
31	Quantitative analysis of bacterial medium-chain-length poly([R]-3-hydroxyalkanoates) by gas chromatography. Journal of Chromatography A, 2007, 1143, 199-206.	1.8	54
32	The role of MgB ₁₂ H ₁₂ in the hydrogen desorption process of Mg(BH ₄) ₂ . Chemical Communications, 2015, 51, 700-702.	2.2	53
33	Synthesis of new bis(acyl)phosphane oxide photoinitiators for the surface functionalization of cellulose nanocrystals. Chemical Communications, 2016, 52, 2823-2826.	2.2	53
34	Hydroxylated Metabolites of \hat{l}^2 - and \hat{l}^2 -Hexachlorocyclohexane: \hat{A} Bacterial Formation, Stereochemical Configuration, and Occurrence in Groundwater at a Former Production Site. Environmental Science & Environmental & Enviro	4.6	51
35	Reactions of a Sulfonamide Antimicrobial with Model Humic Constituents: Assessing Pathways and Stability of Covalent Bonding. Environmental Science &	4.6	48
36	The impact of aging environment on the evolution of Al2O3 supported Pt nanoparticles and their NO oxidation activity. Applied Catalysis B: Environmental, 2013, 129, 214-224.	10.8	45

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37	The Hydrotropic Effect of Ionic Liquids in Waterâ€inâ€Salt Electrolytes**. Angewandte Chemie - International Edition, 2021, 60, 14100-14108.	7.2	45
38	<i>Nido</i> -Borate/ <i>Closo</i> -Borate Mixed-Anion Electrolytes for All-Solid-State Batteries. Chemistry of Materials, 2020, 32, 1101-1110.	3.2	44
39	Crystal-chemistry of mullite-type aluminoborates Al18B4O33 and Al5BO9: A stoichiometry puzzle. Journal of Solid State Chemistry, 2011, 184, 70-80.	1.4	43
40	New Metabolites in the Degradation of \hat{l}_{\pm} - and \hat{l}_{\pm} - and \hat{l}_{\pm} -Hexachlorocyclohexane (HCH): Pentachlorocyclohexenes Are Hydroxylated to Cyclohexenols and Cyclohexenediols by the Haloalkane Dehalogenase LinB from Sphingobium indicum B90A. Journal of Agricultural and Food Chemistry, 2008, 56, 6594-6603.	2.4	41
41	Solvent-free synthesis and stability of MgB ₁₂ H ₁₂ . Journal of Materials Chemistry A, 2014, 2, 7244-7249.	5.2	41
42	Sn-Decorated Cu for Selective Electrochemical CO ₂ to CO Conversion: Precision Architecture beyond Composition Design. ACS Applied Energy Materials, 2019, 2, 867-872.	2.5	41
43	Sulfonic and Oxanilic Acid Metabolites of Acetanilide Herbicides:Â Separation of Diastereomers and Enantiomers by Capillary Zone Electrophoresis and Identification by1H NMR Spectroscopy. Environmental Science & Environment	4.6	39
44	A novel strategy for reversible hydrogen storage in Ca(BH4)2. Chemical Communications, 2015, 51, 11008-11011.	2.2	39
45	Laboratory and field scale bioremediation of hexachlorocyclohexane (HCH) contaminated soils by means of bioaugmentation and biostimulation. Biodegradation, 2016, 27, 179-193.	1.5	39
46	Characterization of the urea-water spray impingement in diesel selective catalytic reduction systems. Applied Energy, 2017, 205, 964-975.	5.1	38
47	Abatement of Polychoro-1,3-butadienes in Aqueous Solution by Ozone, UV Photolysis, and Advanced Oxidation Processes (O ₃ /H ₂ O ₂ and) Tj ETQq1 1 0.784314 rgBT /Overlock	ഫ af 50 3	3377 Td (UV/
48	<i>Nido</i> â€Hydroborateâ€Based Electrolytes for Allâ€Solidâ€State Lithium Batteries. Advanced Functional Materials, 2021, 31, 2010046.	7.8	37
49	Dynamics of the Coordination Complexes in a Solid-State Mg Electrolyte. Journal of Physical Chemistry Letters, 2018, 9, 6450-6455.	2.1	36
50	Enzymatic Conversion of $\hat{l}\mu$ -Hexachlorocyclohexane and a Heptachlorocyclohexane Isomer, Two Neglected Components of Technical Hexachlorocyclohexane. Environmental Science & Emp; Technology, 2012, 46, 4051-4058.	4.6	35
51	A novel method for the synthesis of solvent-free Mg(B ₃ H ₈) ₂ . Dalton Transactions, 2016, 45, 3687-3690.	1.6	35
52	Is Y2(B12H12)3 the main intermediate in the decomposition process of Y(BH4)3?. Chemical Communications, 2013, 49, 5234.	2.2	33
53	Quantitative Determination of Resin Loading in Solid-Phase Organic Synthesis Using 13C MAS NMR. ACS Combinatorial Science, 2001, 3, 85-89.	3.3	31
54	Ambient pressure drying of silica aerogels after hydrophobization with mono-, di- and tri-functional silanes and mixtures thereof. Microporous and Mesoporous Materials, 2019, 284, 289-295.	2.2	31

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55	NMR Chemical Shifts of $\langle \sup 11 \langle \sup \rangle B$ in Metal Borohydrides from First-Principle Calculations. Journal of Physical Chemistry C, 2014, 118, 6594-6603.	1.5	30
56	Diyne-Functionalized Fullerene Self-Assembly for Thin Film Solid-State Polymerization. Macromolecules, 2014, 47, 721-728.	2.2	28
57	13C,17O and55Mn NMR studies on substituted manganese carbonyl complexes. A contribution to the mechanism of demetalation reactions. Magnetic Resonance in Chemistry, 1998, 36, S54-S60.	1.1	24
58	Some Key Factors Influencing the Flame Retardancy of EDA-DOPO Containing Flexible Polyurethane Foams. Polymers, 2018, 10, 1115.	2.0	23
59	Transition Metal NMR Spectroscopy.55Mn,13CO and55Mn,31P coupling constants of organomanganese complexes: comparison of NMR results from experiments in solution and in the solid state. Magnetic Resonance in Chemistry, 1997, 35, 832-838.	1.1	22
60	One-Dimensional Organic–Inorganic Hybrid Perovskite Incorporating Near-Infrared-Absorbing Cyanine Cations. Journal of Physical Chemistry Letters, 2018, 9, 2438-2442.	2.1	22
61	Effect of SiO2 on co-impregnated V2O5/WO3/TiO2 catalysts for the selective catalytic reduction of NO with NH3. Catalysis Today, 2019, 320, 123-132.	2.2	21
62	Lignans, alkaloids and coumarins from Haplophyllum vulcanicum. Phytochemistry, 1996, 42, 695-699.	1.4	20
63	Controlling the Dehydrogenation Reaction toward Reversibility of the LiBH ₄ a€"Ca(BH ₄) ₂ Eutectic System. Journal of Physical Chemistry C, 2013, 117, 8878-8886.	1.5	20
64	Reactions of pyrrole, imidazole, and pyrazole with ozone: kinetics and mechanisms. Environmental Science: Water Research and Technology, 2020, 6, 976-992.	1.2	20
65	Phase transfer agents facilitate the production of superinsulating silica aerogel powders by simultaneous hydrophobization and solvent- and ion-exchange. Chemical Engineering Journal, 2020, 381, 122421.	6.6	19
66	Synthesis, stability and Li-ion mobility of nanoconfined Li ₂ B ₁₂ H ₁₂ . Dalton Transactions, 2017, 46, 12434-12437.	1.6	18
67	A simple HPLCâ€MS method for the quantitative determination of the composition of bacterial medium chainâ€length polyhydroxyalkanoates. Journal of Separation Science, 2008, 31, 1739-1744.	1.3	15
68	Isolation of the (+)-Pinoresinol-Mineralizing Pseudomonas sp. Strain SG-MS2 and Elucidation of Its Catabolic Pathway. Applied and Environmental Microbiology, 2018, 84, .	1.4	15
69	Ruthenium on phosphorous-modified alumina as an effective and stable catalyst for catalytic transfer hydrogenation of furfural. RSC Advances, 2020, 10, 11507-11516.	1.7	15
70	Shortwave infrared-absorbing squaraine dyes for all-organic optical upconversion devices. Science and Technology of Advanced Materials, 2021, 22, 194-204.	2.8	15
71	Resolution of [(η4-benzylideneacetone)Fe(CO)3]. Structure and configurational stability of [(pS)-(benzylideneacetone)Fe(CO)2Lâ~] (Lâ~ î—» (+)-neomenthyldiphenylphosphine). Journal of Organometall Chemistry, 1992, 429, 87-97.	ic0.8	14
72	Glycosylmanganese pentacarbonyl complexes: an organomanganese-based approach to the synthesis of C-glycosyl derivatives. Journal of Organometallic Chemistry, 2000, 593-594, 49-62.	0.8	14

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73	The Missing Link in Linear Alkylbenzenesulfonate Surfactant Degradation: 4-Sulfoacetophenone as a Transient Intermediate in the Degradation of 3-(4-Sulfophenyl)Butyrate by <i>Comamonas testosteroni</i> KF-1. Applied and Environmental Microbiology, 2010, 76, 196-202.	1.4	14
74	One-Pot Synthesis of P(O)-N Containing Compounds Using N-Chlorosuccinimide and Their Influence in Thermal Decomposition of PU Foams. Polymers, 2018, 10, 740.	2.0	14
7 5	Characterization of New Bacterial Copolyesters Containing 3-Hydroxyoxoalkanoates and Acetoxy-3-hydroxyalkanoates. Macromolecules, 2000, 33, 8571-8575.	2.2	13
76	Metabolites and dead-end products from the microbial oxidation of quaternary ammonium alcohols. Biodegradation, 2005, 16, 461-473.	1.5	13
77	Diastereoselective self-assembly of bisheptahelicene on Cu(111). Chemical Communications, 2018, 54, 8757-8760.	2.2	13
78	Insight into the Synthesis and Characterization of Organophosphorus-Based Bridged Triazine Compounds. Molecules, 2019, 24, 2672.	1.7	13
79	The aspartimide problem persists: Fluorenylmethyloxycarbonylâ€solidâ€phase peptide synthesis (Fmocâ€SPPS) chain termination due to formation of Nâ€terminal piperazineâ€2,5â€diones. Journal of Peptide Science, 2019, 25, e3193.	0.8	13
80	Influence of sodium nitrate on the phases formed in the MgO-Al2O3-SiO2-H2O system. Materials and Design, 2021, 198, 109391.	3.3	13
81	Controllable decomposition of Ca(BH ₄) ₂ for reversible hydrogen storage. Physical Chemistry Chemical Physics, 2017, 19, 7788-7792.	1.3	12
82	Tailoring the hydrophobicity of wrinkled silica nanoparticles and of the adsorption medium as a strategy for immobilizing lipase: An efficient catalyst for biofuel production. Microporous and Mesoporous Materials, 2021, 328, 111504.	2.2	12
83	Structural Modification of Ni/γâ€Al ₂ O ₃ with Boron for Enhanced Carbon Resistance during CO Methanation. ChemCatChem, 2015, 7, 3261-3265.	1.8	11
84	$2,2\hat{a}$ € 2 : $6\hat{a}$ € $^2,2\hat{a}$ € 2 -Terpyridine-functionalized redox-responsive hydrogels as a platform for multi responsive amphiphilic polymer membranes. RSC Advances, 2016, 6, 97921-97930.	1.7	11
85	<i>Aminobacter</i> sp. MSH1 Mineralizes the Groundwater Micropollutant 2,6-Dichlorobenzamide through a Unique Chlorobenzoate Catabolic Pathway. Environmental Science & Enviro	4.6	11
86	Water/Ionic Liquid/Succinonitrile Hybrid Electrolytes for Aqueous Batteries. Advanced Functional Materials, 2022, 32, .	7.8	11
87	Crystallization of an Aromatic Biopolyester. Macromolecules, 2009, 42, 6322-6326.	2.2	10
88	Identification and dynamic modeling of biomarkers for bacterial uptake and effect of sulfonamide antimicrobials. Environmental Pollution, 2013, 172, 208-215.	3.7	10
89	Influence of chemically p-type doped active organic semiconductor on the film thickness versus performance trend in cyanine/ C _{60} bilayer solar cells. Science and Technology of Advanced Materials, 2015, 16, 035003.	2.8	10
90	Direct Rehydrogenation of LiBH4 from H-Deficient Li2B12H12â^'x. Crystals, 2018, 8, 131.	1.0	10

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91	Unsymmetrical Heptamethine Dyes for NIR Dye-Sensitized Solar Cells. International Journal of Photoenergy, 2014, 2014, 1-10.	1.4	9
92	Structurally Tunable pH-responsive Phosphine Oxide Based Gels by Facile Synthesis Strategy. ACS Applied Materials & Strategy. ACS Applied Mate	4.0	9
93	55Mn,13C coupling constants of some σ- and π-organomanganese complexes. Magnetic Resonance in Chemistry, 1994, 32, 348-352.	1.1	8
94	Enantioselective Dehydrochlorination of δ-Hexachlorocyclohexane and δ-Pentachlorocyclohexene by LinA1 and LinA2 from Sphingobium indicum B90A. Applied and Environmental Microbiology, 2013, 79, 6180-6183.	1.4	8
95	Spectroscopic elucidation of structure-property relations in filaments melt-spun from amorphous polymers. European Polymer Journal, 2017, 89, 78-87.	2.6	8
96	Probing the chemistry of organomanganese complexes. a kinetic study of the role of coordinate bonds in a demetalation reaction Tetrahedron, 1993, 49, 5673-5682.	1.0	7
97	Quantitative Determination of Loadings and Oxidation Products of Polystyrene-Bound Phosphines Using 31P MAS NMR. ACS Combinatorial Science, 2003, 5, 610-616.	3.3	7
98	Carbon-substituted 9,12-dimercapto-1,2-dicarba-closo-dodecaboranes via a 9,12-bis(methoxy-methylthio)-1,2-dicarba-closo-dodecaborane precursor. Polyhedron, 2012, 45, 144-151.	1.0	7
99	Cyanine dye polyelectrolytes for organic bilayer solar cells. Polymer, 2014, 55, 3195-3201.	1.8	7
100	Allâ€inâ€One Cellulose Nanocrystals for 3D Printing of Nanocomposite Hydrogels. Angewandte Chemie, 2018, 130, 2377-2380.	1.6	7
101	Thermal and Electrochemical Interface Compatibility of a Hydroborate Solid Electrolyte with 3 V-Class Cathodes for All-Solid-State Sodium Batteries. ACS Applied Materials & Samp; Interfaces, 2021, 13, 55319-55328.	4.0	7
102	Transformation of \hat{I}^2 -lactam Antibacterial Agents during Aqueous Ozonation: Reaction Pathways and Quantitative Bioassay of Biologically-Active Oxidation Products. Environmental Science & Emp; Technology, 2010, 44, 8790-8790.	4.6	6
103	Quantitative Assessment of Preloaded 4-Alkoxybenzyl Alcohol Resins for Solid-Phase Peptide Syntheses by 1D and 2D HR-MAS NMR. ACS Combinatorial Science, 2012, 14, 613-620.	3.8	6
104	Enzymatic Synthesis of Ligninâ€Based Concrete Dispersing Agents. ChemBioChem, 2018, 19, 1365-1369.	1.3	6
105	Crystal Structures of BapA Complexes with βâ€Lactamâ€Derived Inhibitors Illustrate Substrate Specificity and Enantioselectivity of βâ€Aminopeptidases. ChemBioChem, 2012, 13, 2137-2145.	1.3	5
106	Comment on Influence of the Chemical Environment on Metolachlor Conformations. Journal of Agricultural and Food Chemistry, 2000, 48, 4448-4449.	2.4	4
107	Improved reproducibility of chemical reactions on purified polystyrene resins monitored by 31P MAS NMR. Tetrahedron Letters, 2003, 44, 6987-6990.	0.7	4
108	Ureido Functionalization through Amine-Urea Transamidation under Mild Reaction Conditions. Polymers, 2021, 13, 1583.	2.0	4

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109	One-Bond55Mn,13C Coupling Constants, a Correction. Magnetic Resonance in Chemistry, 1996, 34, 955-957.	1.1	3
110	Effect of an Al2O3-based binder on the structure of extruded Fe-ZSM-5. Catalysis Today, 2022, 387, 207-215.	2.2	2
111	Synthesis and NMR Spectroscopic Characterization of Organometallics in the Laboratory of Wolfgang von Philipsborn: Reminiscences of Former Graduate Students. Chimia, 2009, 63, 568-572.	0.3	1
112	On the reversible hydrogen storage in Mg(BH4)2 under moderate conditions. , 2016, , .		1
113	The Hydrotropic Effect of Ionic Liquids in Waterâ€inâ€Salt Electrolytes**. Angewandte Chemie, 2021, 133, 14219-14227.	1.6	1