

Konrad SzaciÅowski

List of Publications by Year in descending order

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130
papers

4,153
citations

147726

31
h-index

123376

61
g-index

151
all docs

151
docs citations

151
times ranked

4802
citing authors

#	ARTICLE	IF	CITATIONS
1	Digital Information Processing in Molecular Systems. <i>Chemical Reviews</i> , 2008, 108, 3481-3548.	23.0	777
2	Bioinorganic Photochemistry: Frontiers and Mechanisms. <i>Chemical Reviews</i> , 2005, 105, 2647-2694.	23.0	671
3	Titanium(IV) complexes as direct TiO ₂ photosensitizers. <i>Coordination Chemistry Reviews</i> , 2010, 254, 2687-2701.	9.5	171
4	Light-Driven OR and XOR Programmable Chemical Logic Gates. <i>Journal of the American Chemical Society</i> , 2006, 128, 4550-4551.	6.6	149
5	Molecular Logic Gates Based on Pentacyanoferrate Complexes: From Simple Gates to Three-Dimensional Logic Systems. <i>Chemistry - A European Journal</i> , 2004, 10, 2520-2528.	1.7	103
6	Interplay between iron complexes, nitric oxide and sulfur ligands: Structure, (photo)reactivity and biological importance. <i>Coordination Chemistry Reviews</i> , 2005, 249, 2408-2436.	9.5	87
7	Nanoscale optoelectronic switches and logic devices. <i>Nanoscale</i> , 2009, 1, 299.	2.8	74
8	S-Nitrosothiols: Materials, Reactivity and Mechanisms. <i>Progress in Reaction Kinetics and Mechanism</i> , 2001, 26, 1-58.	1.1	66
9	Optoelectronic Switches Based on Wide Band Gap Semiconductors. <i>Journal of Physical Chemistry B</i> , 2006, 110, 15275-15283.	1.2	63
10	Photoelectrochemistry of n-type bismuth oxyiodide. <i>Electrochimica Acta</i> , 2013, 104, 448-453.	2.6	61
11	Photosensitization and the Photocurrent Switching Effect in Nanocrystalline Titanium Dioxide Functionalized with Iron(II) Complexes: A Comparative Study. <i>Chemistry - A European Journal</i> , 2007, 13, 5676-5687.	1.7	55
12	Synthesis, structure and photoelectrochemical properties of the TiO ₂ @Prussian blue nanocomposite. <i>Journal of Materials Chemistry</i> , 2006, 16, 4603-4611.	6.7	54
13	Ligand and medium controlled photochemistry of iron and ruthenium mixed-ligand complexes: prospecting for versatile systems. <i>Coordination Chemistry Reviews</i> , 2000, 208, 277-297.	9.5	53
14	Chemical switches and logic gates based on surface modified semiconductors. <i>Comptes Rendus Chimie</i> , 2006, 9, 315-324.	0.2	46
15	Ground and excited state properties of alizarin and its isomers. <i>Dyes and Pigments</i> , 2014, 103, 202-213.	2.0	45
16	Redox-Controlled Photosensitization of Nanocrystalline Titanium Dioxide. <i>ChemPhysChem</i> , 2006, 7, 2384-2391.	1.0	44
17	Reactions of the [Fe(CN) ₅ NO] ²⁻ complex with biologically relevant thiols. <i>New Journal of Chemistry</i> , 2002, 26, 1495-1502.	1.4	42
18	Anomalous Photocathodic Behavior of CdS within the Urbach Tail Region. <i>Journal of Physical Chemistry C</i> , 2009, 113, 6774-6784.	1.5	42

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19	Molecular switches based on cyanoferrate complexes. <i>Coordination Chemistry Reviews</i> , 2002, 229, 17-26.	9.5	40
20	Synaptic Behavior in an Optoelectronic Device Based on Semiconductorâ€Nanotube Hybrid. <i>Advanced Electronic Materials</i> , 2016, 2, 1500471.	2.6	40
21	Photocatalysis Involving a Visible Light-Induced Hole Injection in a Chromate(VI)â€TiO ₂ System. <i>Journal of Physical Chemistry C</i> , 2012, 116, 21762-21770.	1.5	39
22	Synthesis and properties of ZnTe and ZnTe/ZnS core/shell semiconductor nanocrystals. <i>Journal of Materials Chemistry C</i> , 2014, 2, 2877-2886.	2.7	39
23	Heavy pnictogen chalcogenides: the synthesis, structure and properties of these rediscovered semiconductors. <i>Chemical Communications</i> , 2018, 54, 12133-12162.	2.2	39
24	Photosensitization and Photocurrent Switching in Carminic Acid/Titanium Dioxide Hybrid Material. <i>Journal of Physical Chemistry C</i> , 2008, 112, 19131-19141.	1.5	38
25	Nanoscale Digital Devices Based on the Photoelectrochemical Photocurrent Switching Effect: Preparation, Properties and Applications. <i>Israel Journal of Chemistry</i> , 2011, 51, 36-55.	1.0	36
26	Spectroelectrochemical analysis of TiO ₂ electronic states â€ Implications for the photocatalytic activity of anatase and rutile. <i>Catalysis Today</i> , 2018, 309, 35-42.	2.2	36
27	Synaptic plasticity, metaplasticity and memory effects in hybrid organicâ€inorganic bismuth-based materials. <i>Nanoscale</i> , 2019, 11, 1080-1090.	2.8	36
28	Photoelectrochemical Photocurrent Switching Effect: A New Platform for Molecular Logic Devices. <i>Chimia</i> , 2007, 61, 831-834.	0.3	34
29	Working prototype of an optoelectronic XOR/OR/YES reconfigurable logic device based on nanocrystalline semiconductors. <i>Solid-State Electronics</i> , 2006, 50, 1649-1655.	0.8	33
30	Redox characterization of semiconductors based on electrochemical measurements combined with UV-Vis diffuse reflectance spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 14256.	1.3	32
31	A three-valued photoelectrochemical logic device realising accept anything and consensus operations. <i>Chemical Communications</i> , 2015, 51, 3559-3561.	2.2	32
32	Molecules, semiconductors, light and information: Towards future sensing and computing paradigms. <i>Coordination Chemistry Reviews</i> , 2018, 365, 23-40.	9.5	32
33	Bioinspired Nanodevice Based on the Folic Acid/Titanium Dioxide System. <i>Chemistry - an Asian Journal</i> , 2007, 2, 580-590.	1.7	30
34	Photoelectrochemistry of n-type antimony sulfide nanowires. <i>Nanotechnology</i> , 2015, 26, 105710.	1.3	28
35	UV-visible and ¹ Hâ€ ¹⁵ N NMR spectroscopic studies of colorimetric thiosemicarbazide anion sensors. <i>Organic and Biomolecular Chemistry</i> , 2015, 13, 1662-1672.	1.5	28
36	Lead molybdate â€ a promising material for optoelectronics and photocatalysis. <i>Journal of Materials Chemistry C</i> , 2015, 3, 2614-2623.	2.7	26

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37	Coordination chemistry for information acquisition and processing. <i>Coordination Chemistry Reviews</i> , 2016, 325, 135-160.	9.5	26
38	Supramolecular Complexes of Graphene Oxide with Porphyrins: An Interplay between Electronic and Magnetic Properties. <i>Molecules</i> , 2019, 24, 688.	1.7	26
39	Photocurrent Switching Effects in TiO ₂ Modified with Ruthenium Polypyridine Complexes. <i>Journal of Physical Chemistry C</i> , 2011, 115, 12187-12195.	1.5	25
40	Light intensity-induced photocurrent switching effect. <i>Nature Communications</i> , 2020, 11, 854.	5.8	25
41	Photochemistry of the [Fe(CN) ₅ N(O)SR] ³⁻ complex. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2001, 143, 99-108.	2.0	24
42	Electrochemically deposited nanocrystalline InSb thin films and their electrical properties. <i>Journal of Materials Chemistry C</i> , 2016, 4, 1345-1350.	2.7	23
43	Molecular engineering of logic gate types by module rearrangement in <i>~Pourbaix Sensors~</i> : the effect of excited-state electric fields. <i>Organic and Biomolecular Chemistry</i> , 2018, 16, 6195-6201.	1.5	23
44	Memristor in a Reservoir System [~] Experimental Evidence for High-Level Computing and Neuromorphic Behavior of Pbl ₂ . <i>ACS Applied Materials & Interfaces</i> , 2019, 11, 17009-17018.	4.0	23
45	Catecholate and 2,3-acenediolate complexes of d0 ions as prospective materials for molecular electronics and spintronics. <i>Coordination Chemistry Reviews</i> , 2012, 256, 1706-1731.	9.5	22
46	Bi _x La _{1-x} VO ₄ solid solutions: tuning of electronic properties via stoichiometry modifications. <i>Nanoscale</i> , 2014, 6, 2244-2254.	2.8	22
47	Solid-State Structures and Magnetic Properties of Halide-Bridged, Face-to-Face Bis-Nickel(II)-Macrocyclic Ligand Complexes: <i>~</i> Ligand-Mediated Interchanges of Electronic Configuration. <i>Inorganic Chemistry</i> , 2005, 44, 6019-6033.	1.9	21
48	Metal-to-Metal Electron-Transfer Emission in Cyanide-Bridged Chromium [~] Ruthenium Complexes: Effects of Configurational Mixing Between Ligand Field and Charge Transfer Excited States. <i>Inorganic Chemistry</i> , 2008, 47, 10921-10934.	1.9	21
49	Photoelectrochemical study of ZnSe electrodeposition on Cu electrode. <i>Journal of Electroanalytical Chemistry</i> , 2012, 674, 108-112.	1.9	21
50	Fluorimetric naphthalimide-based polymer logic beads responsive to acidity and oxidisability. <i>Journal of Materials Chemistry C</i> , 2019, 7, 15225-15232.	2.7	21
51	Halogen-containing semiconductors: From artificial photosynthesis to unconventional computing. <i>Coordination Chemistry Reviews</i> , 2020, 415, 213316.	9.5	21
52	Photochemistry of the [FeIII(edta)(H ₂ O)] ⁻ and [FeIII(edta)(OH)] ²⁻ complexes in presence of environmentally relevant species. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2007, 188, 128-134.	2.0	20
53	Influence of I ⁻ -Iodide Intermolecular Interactions on Electronic Properties of Tin(IV) Iodide Semiconducting Complexes. <i>Inorganic Chemistry</i> , 2016, 55, 5935-5945.	1.9	20
54	Photochemistry of the [Fe(CN) ₅ NO] ²⁻ <i>~</i> thiolate system. <i>Journal of the Chemical Society Dalton Transactions</i> , 1999, , 2353-2358.	1.1	18

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55	Towards 'Computer-on-a-Particle' Devices: Optoelectronic 1:2 Demultiplexer Based on Nanostructured Cadmium Sulfide. Australian Journal of Chemistry, 2010, 63, 165.	0.5	18
56	Novel, Microwave Assisted Route of Synthesis of Binary Oxide Semiconducting Phases " PbMoO ₄ And PbWO ₄ / Nowa Metoda Syntezy Binarnych Faz Tlenkowych O Charakterze P ³⁺ ,przewodnikowym W Polu Mikrofalowym " PbMoO ₄ I PbWO ₄ . Archives of Metallurgy and Materials, 2013, 58, 217-222.	0.6	18
57	Liquid metal droplet solves maze. Soft Matter, 2020, 16, 1455-1462.	1.2	18
58	Arithmetic Device Based on Multiple Schottky-like Junctions. Australian Journal of Chemistry, 2010, 63, 1330.	0.5	18
59	In-materioneuromimetic devices: dynamics, information processing and pattern recognition. Japanese Journal of Applied Physics, 2020, 59, 050504.	0.8	17
60	Organotitania-Based Nanostructures as a Suitable Platform for the Implementation of Binary, Ternary, and Fuzzy Logic Systems. ChemPhysChem, 2017, 18, 1798-1810.	1.0	16
61	Neuromorphic Applications of a Multivalued [Sn ₄]{(C ₆ H ₅) ₂ SO ₂ } Memristor Incorporated in the Echo State Machine. ACS Applied Electronic Materials, 2020, 2, 329-338.	2.0	16
62	An electrospray ionization mass spectrometry study of the nitroprusside "cation" thiolate system. Dalton Transactions RSC, 2002, , 3649-3655.	2.3	14
63	Photocatalytic Activity of TiO ₂ Modified with Hexafluorometallates "Fine Tuning of Redox Properties by Redox-Innocent Anions. Journal of Physical Chemistry C, 2014, 118, 24915-24924.	1.5	14
64	Towards synthetic neural networks: can artificial electrochemical neurons be coupled with artificial memristive synapses?. Japanese Journal of Applied Physics, 2020, 59, SI0801.	0.8	14
65	Influence of pulse frequency on physicochemical properties of InSb films obtained via electrodeposition. Electrochimica Acta, 2019, 304, 396-404.	2.6	13
66	Hardware Realization of the Pattern Recognition with an Artificial Neuromorphic Device Exhibiting a Short-Term Memory. Molecules, 2019, 24, 2738.	1.7	12
67	The role of photoinduced electron transfer processes in photodegradation of the [Fe ₄ (^{1/3} -S) ₃ (NO) ₇] ⁺ cluster. Nitric Oxide - Biology and Chemistry, 2006, 15, 370-379.	1.2	11
68	Kinetics and Mechanism of Redox Reaction between Tetrachloroaurate(III) Ions and Hydrazine. International Journal of Chemical Kinetics, 2014, 46, 328-337.	1.0	11
69	Adsorption of selected ions on the anatase TiO ₂ (101) surface: a density-functional study. Molecular Simulation, 2009, 35, 567-576.	0.9	10
70	TiO ₂ "anthraquinone hybrids: from quantum-chemical design to functional materials. Journal of Materials Chemistry C, 2015, 3, 4148-4155.	2.7	10
71	Alizarin complexone: an interesting ligand for designing TiO ₂ -hybrid nanostructures. New Journal of Chemistry, 2013, 37, 969.	1.4	9
72	Optical signal demultiplexing and conversion in the fullerene "oligothiophene" CdS system. Applied Surface Science, 2014, 319, 285-290.	3.1	9

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73	Colorimetric Naphthalene-Based Thiosemicarbazide Anion Chemosensors with an Internal Charge Transfer Mechanism. <i>European Journal of Organic Chemistry</i> , 2016, 2016, 4415-4422.	1.2	9
74	Water-Soluble Colorimetric Amino[<i>bis</i> -(ethanesulfonate)] Azobenzene pH Indicators: A UV-Vis Absorption, DFT, and ¹ H- ¹⁵ N NMR Spectroscopy Study. <i>ACS Omega</i> , 2017, 2, 6159-6166.	1.6	9
75	On the influence of magnetic field on electrodeposition of Ni-TiO ₂ composites from a citrate baths. <i>Materials Chemistry and Physics</i> , 2020, 255, 123550.	2.0	9
76	Light-Induced Synaptic Effects Controlled by Incorporation of Charge-Trapping Layer into Hybrid Perovskite Memristor. <i>Advanced Electronic Materials</i> , 2022, 8, .	2.6	9
77	Photochemistry of the [Fe ₄ (μ_3 -S) ₃ (NO) ₇] ²⁺ complex in the presence of S-nucleophiles: A spectroscopic study. <i>Nitric Oxide - Biology and Chemistry</i> , 2006, 14, 247-260.	1.2	8
78	Biomedical implications of information processing in chemical systems: Non-classical approach to photochemistry of coordination compounds. <i>BioSystems</i> , 2007, 90, 738-749.	0.9	8
79	Photoredox reactions of Cr(III) mixed-ligand complexes. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2010, 209, 121-127.	2.0	8
80	Photoluminescence Enhancement of CdSe and CdSe-ZnS Nanocrystals by On-Surface Ligand Modification. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 3550-3556.	1.0	8
81	Triiodide Organic Salts: Photoelectrochemistry at the Border between Insulators and Semiconductors. <i>ChemElectroChem</i> , 2018, 5, 3486-3497.	1.7	8
82	Enhanced ion binding by the benzocrown receptor and a carbonyl of the aminonaphthalimide fluorophore in water-soluble logic gates. <i>Organic and Biomolecular Chemistry</i> , 2020, 18, 4773-4782.	1.5	8
83	KNOWM memristors in a bridge synapse delay-based reservoir computing system for detection of epileptic seizures. <i>International Journal of Parallel, Emergent and Distributed Systems</i> , 2022, 37, 512-527.	0.7	7
84	Molecular Photodiode and Two-channel Optoelectronic Demultiplexer based on the [60]Fullerene-porphyrin Tetrad. <i>Australian Journal of Chemistry</i> , 2011, 64, 1409.	0.5	6
85	Nanoparticles with logic and numeracy: towards a computer-on-a-particle™ optoelectronic devices. <i>IET Circuits, Devices and Systems</i> , 2011, 5, 103.	0.9	6
86	Interactions between graphene oxide and wide band gap semiconductors. <i>Journal of Physics: Conference Series</i> , 2016, 745, 032102.	0.3	6
87	Bismuth triiodide complexes: structure, spectroscopy, electronic properties, and memristive properties. <i>Journal of Materials Chemistry C</i> , 2020, 8, 6136-6148.	2.7	6
88	Tuning of electronic properties of fullerene-oligothiophene layers. <i>Applied Physics Letters</i> , 2015, 106, .	1.5	5
89	Electrochemical Synthesis of Nanocrystalline Ni-Pd Alloys in Alkaline Ni ²⁺ -Pd ²⁺ -Cl ⁻ -NH ₃ -H ₂ O System and Their Catalytic Activity towards Water Splitting Process. <i>Journal of the Electrochemical Society</i> , 2017, 164, D613-D620.	1.3	5
90	Unconventional Computing Realized with Hybrid Materials Exhibiting the PhotoElectrochemical Photocurrent Switching (PEPS) Effect. <i>Emergence, Complexity and Computation</i> , 2017, , 429-467.	0.2	5

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91	Brief Insights into Cu ₂ O Electrodeposition: Detailed Progressive Voltammetric and Electrogravimetric Analysis of a Copper Lactate System. Journal of the Electrochemical Society, 2020, 167, 042504.	1.3	5
92	Towards Embedded Computation with Building Materials. Materials, 2021, 14, 1724.	1.3	5
93	In Situ Regeneration of Copper-Coated Gas Diffusion Electrodes for Electroreduction of CO ₂ to Ethylene. Materials, 2021, 14, 3171.	1.3	5
94	New Type of Photoactive Materials Based on TiO ₂ Modified by Anthraquinone Derivatives / Nowe Fotoaktywne Materiały W Oparciu O TiO ₂ Modyfikowany Pochodnymi Antrachinonu. Archives of Metallurgy and Materials, 2013, 58, 269-273.	0.6	4
95	Charge transfer tuning in TiO ₂ hybrid nanostructures with acceptor-acceptor systems. Journal of Materials Chemistry C, 2017, 5, 2415-2424.	2.7	4
96	Acoustic wave sensing devices and their LTCC packaging. , 2014, , .		3
97	Supramolecular assemblies of semiconductor quantum dots and a bis(bipyridinium) derivative: luminescence quenching and aggregation phenomena. RSC Advances, 2014, 4, 29847-29854.	1.7	3
98	Photoinduced Electron Transfer in Proteins. , 0, , 209-226.		1
99	Photodynamic Inactivation of Microorganisms. , 0, , 335-343.		1
100	The Deposition of Gold Nanoparticles Onto Activated Carbon. Archives of Metallurgy and Materials, 2014, 59, 899-903.	0.6	1
101	Ultrasound Supported Galvanostatic Deposition of Zn Coatings Reinforced with Nano-, Submicro-, and Micro-SiC Particles in Weak Acidic Chloride Baths. Materials, 2021, 14, 3033.	1.3	1
102	On Buildings that Compute. A Proposal. Emergence, Complexity and Computation, 2020, , 311-335.	0.2	1
103	Spectral properties of polycrystalline MoS ₂ films grown by RF magnetron sputtering. Journal of Applied Physics, 2021, 130, 224302.	1.1	1
104	Supercapacitance in graphene oxide materials modified with tetrapyrrole dyes: a mechanistic study. Nanoscale, 2022, 14, 8534-8547.	2.8	1
105	Solar Radiation and Terrestrial Environment. , 0, , 127-155.		0
106	Photoenzymes. , 0, , 189-207.		0
107	Foundation and Evolution of Photosynthesis. , 0, , 169-187.		0
108	Therapeutic Strategies. , 0, , 293-334.		0

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109	Light and Biomatter. , 0, , 247-255.		0
110	From Interstellar Space to Planetary Atmospheres. , 0, , 107-125.		0
111	Philosophy of Bioinorganic Photochemistry. , 0, , 1-12.		0
112	Nucleic Acid Photocleavage and Charge Transport. , 0, , 227-246.		0
113	Formation and Properties of Electronic Excited States. , 0, , 19-23.		0
114	Light and Matter. , 0, , 13-18.		0
115	Photodelivery and Phototargeting. , 0, , 345-351.		0
116	Photochemical Reactions. , 0, , 41-76.		0
117	Photophysical Deactivation of Electronic Excited States. , 0, , 25-33.		0
118	Photocatalysis in Environmental Protection. , 0, , 359-376.		0
119	Photochemistry and Photophysics of Supramolecular Systems and Nanoassemblies. , 0, , 77-105.		0
120	Fluorescent and Chromogenic Sensing and Labelling. , 0, , 257-292.		0
121	Phototoxicity and Photoprotection. , 0, , 353-358.		0
122	Heterogeneous (Photo)Catalysis and Biogenesis on Earth. , 0, , 157-167.		0
123	Kinetics of the Excited-State Decay. , 0, , 35-40.		0
124	Unconventional molecular scale logic devices. , 2013, , 654-675.		0
125	Novel information processing devices: A material odyssey. , 2016, , .		0
126	Composites of cadmium sulfide and copolymers of aromatic amines. , 2016, , .		0

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127	Experimental and Theoretical Evidence of Photocurrent Amplification in Hybrid Material Based on Dibenzo-18-Crown-6. , 2019, , .		0
128	New approaches towards chemosensing. , 2019, , .		0
129	Synthesis and spectroscopic studies of diaza-8-crown-4-dinitrophenyl ethers. Supramolecular Chemistry, 2020, 32, 13-22.	1.5	0
130	Molecules on Semiconductors. The Electrical Engineering Handbook, 2012, , 367-396.	0.2	0