Tanja VidakoviÄ-Koch

List of Publications by Year
in descending order

57 papers	1,601 citations	361296 20 h-index	315616 38 g-index
60 all docs	60 docs citations	60 times ranked	1824 citing authors

#	Article	IF	Citations
1	Sequential bottom-up assembly of mechanically stabilized synthetic cells by microfluidics. Nature Materials, 2018, 17, 89-96.	13.3	314
2	MaxSynBio: Avenues Towards Creating Cells from the Bottom Up. Angewandte Chemie - International Edition, 2018, 57, 13382-13392.	7.2	234
3	Recent Advances in Enzymatic Fuel Cells: Experiments and Modeling. Energies, 2010, 3, 803-846.	1.6	177
4	Toward Artificial Mitochondrion: Mimicking Oxidative Phosphorylation in Polymer and Hybrid Membranes. Nano Letters, 2017, 17, 6816-6821.	4.5	96
5	Out-of-equilibrium microcompartments for the bottom-up integration of metabolic functions. Nature Communications, 2018, 9, 2391.	5.8	55
6	Polymer Electrolyte Fuel Cell Degradation Mechanisms and Their Diagnosis by Frequency Response Analysis Methods: A Review. Energies, 2020, 13, 5825.	1.6	43
7	Constructing artificial respiratory chain in polymer compartments: Insights into the interplay betweenbo₃oxidase and the membrane. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 15006-15017.	3.3	37
8	Lightâ€Driven ATP Regeneration in Diblock/Grafted Hybrid Vesicles. ChemBioChem, 2020, 21, 2149-2160.	1.3	32
9	Artificial Organelles for Energy Regeneration. Advanced Biology, 2019, 3, e1800323.	3.0	31
10	Energy-efficient chlorine production by gas-phase HCl electrolysis with oxygen depolarized cathode. Electrochemistry Communications, 2013, 34, 320-322.	2.3	29
11	Effect of the MEA design on the performance of PEMWE single cells with different sizes. Journal of Applied Electrochemistry, 2018, 48, 701-711.	1.5	29
12	Bottom-Up Synthesis of Artificial Cells: Recent Highlights and Future Challenges. Annual Review of Chemical and Biomolecular Engineering, 2021, 12, 287-308.	3.3	28
13	Mathematical Modeling of a Porous Enzymatic Electrode with Direct Electron Transfer Mechanism. Electrochimica Acta, 2014, 137, 616-626.	2.6	27
14	Directed Signaling Cascades in Monodisperse Artificial Eukaryotic Cells. ACS Nano, 2021, 15, 15656-15666.	7.3	27
15	Direct hybrid glucoseâ€“oxygen enzymatic fuel cell based on tetrathiafulvaleneâ€“tetracyanoquinodimethane charge transfer complex as anodic mediator. Journal of Power Sources, 2011, 196, 9260-9269.	4.0	25
16	Electrochemical Membrane Reactors for Sustainable Chlorine Recycling. Membranes, 2012, 2, 510-528.	1.4	22
17	Concentration-alternating frequency response: A new method for studying polymer electrolyte membrane fuel cell dynamics. Electrochimica Acta, 2017, 243, 53-64.	2.6	22
18	Ultra-low loading Pt-sputtered gas diffusion electrodes for oxygen reduction reaction. Journal of Applied Electrochemistry, 2018, 48, 221-232.	1.5	21

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19	En route to dynamic life processes by SNARE-mediated fusion of polymer and hybrid membranes. Nature Communications, 2021, 12, 4972.	5.8	21
20	Autonomous Voltage Oscillations in a Direct Methanol Fuel Cell. Electrochimica Acta, 2016, 212, 545-552.	2.6	20
21	Steady-State Water Drainage by Oxygen in Anodic Porous Transport Layer of Electrolyzers: A 2D Pore Network Study. Processes, 2020, 8, 362.	1.3	20
22	Application of electrochemical impedance spectroscopy for studying of enzyme kinetics. Electrochimica Acta, 2013, 110, 94-104.	2.6	18
23	Gluconic Acid Synthesis in an Electroenzymatic Reactor. Electrochimica Acta, 2015, 174, 480-487.	2.6	17
24	Novel process for the exergetically efficient recycling of chlorine by gas phase electrolysis of hydrogen chloride. Chemical Engineering Journal, 2018, 346, 535-548.	6.6	17
25	Alternating electron transfer mechanism in the case of high-performance tetrathiafulvaleneâ€“tetracyanoquinodimethane enzymatic electrodes. Journal of Electroanalytical Chemistry, 2013, 690, 68-73.	1.9	16
26	Dynamic and steady state 1-D model of mediated electron transfer in a porous enzymatic electrode. Bioelectrochemistry, 2015, 106, 3-13.	2.4	15
27	Studying mass transport dynamics in polymer electrolyte membrane fuel cells using concentration-alternating frequency response analysis. Journal of Power Sources, 2019, 412, 331-335.	4.0	15
28	Impact of the Gold Support on the Electrocatalytic Oxidation of Sugars at Enzymeâ€Modified Electrodes. Electroanalysis, 2011, 23, 927-930.	1.5	13
29	Oxygen reduction reaction on silver electrodes under strong alkaline conditions. Electrochimica Acta, 2019, 320, 134517.	2.6	13
30	Pore Network Simulation of Gas-Liquid Distribution in Porous Transport Layers. Processes, 2019, 7, 558.	1.3	13
31	Transmembrane NADH Oxidation with Tetracyanoquinodimethane. Langmuir, 2018, 34, 5435-5443.	1.6	12
32	Nonlinear frequency response analysis: a recent review and perspectives. Current Opinion in Electrochemistry, 2021, 30, 100851.	2.5	12
33	Computer-Aided Nonlinear Frequency Response Method for Investigating the Dynamics of Chemical Engineering Systems. Processes, 2020, 8, 1354.	1.3	11
34	Analysis of a novel chlorine recycling process based on anhydrous HCl oxidation. Electrochimica Acta, 2014, 123, 387-394.	2.6	10
35	Energyâ€Efficient Gasâ€Phase Electrolysis ofÂHydrogen Chloride. Chemie-Ingenieur-Technik, 2019, 91, 795-808.	0.4	10
36	Combined electrochemical and microscopic study of porous enzymatic electrodes with direct electron transfer mechanism. RSC Advances, 2014, 4, 36471-36479.	1.7	9

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37	Light-Powered Reactivation of Flagella and Contraction of Microtubule Networks: Toward Building an Artificial Cell. ACS Synthetic Biology, 2021, 10, 1490-1504.	1.9	9
38	Decoupling oxygen and water transport dynamics in polymer electrolyte membrane fuel cells through frequency response methods based on partial pressure perturbations. Electrochimica Acta, 2021, 390, 138788.	2.6	9
39	Selectivity and Sustainability of Electroenzymatic Process for Glucose Conversion to Gluconic Acid. Catalysts, 2020, 10, 269.	1.6	8
40	Material development and process optimization for gas-phase hydrogen chloride electrolysis with oxygen depolarized cathode. Journal of Applied Electrochemistry, 2016, 46, 755-767.	1.5	7
41	Computational Optimization of Porous Structures for Electrochemical Processes. Processes, 2020, 8, 1205.	1.3	7
42	Rapid Multi-Objective Optimization of Periodically Operated Processes Based on the Computer-Aided Nonlinear Frequency Response Method. Processes, 2020, 8, 1357.	1.3	7
43	Advances in the HCl gas-phase electrolysis employing an oxygen-depolarized cathode. Electrochimica Acta, 2021, 365, 137282.	2.6	6
44	Multistimuli Sensing Adhesion Unit for the Selfâ€Positioning of Minimal Synthetic Cells. Small, 2020, 16, 2002440.	5.2	5
45	Evaluation of Electrochemical Process Improvement Using the Computer-Aided Nonlinear Frequency Response Method: Oxygen Reduction Reaction in Alkaline Media. Frontiers in Chemistry, 2020, 8, 579869.	1.8	5
46	Interplay Between Mitophagy and Apoptosis Defines a Cell Fate Upon Co-treatment of Breast Cancer Cells With a Recombinant Fragment of Human Î²-Casein and Tumor Necrosis Factor-Related Apoptosis-Inducing Ligand. Frontiers in Cell and Developmental Biology, 2020, 8, 617762.	1.8	5
47	Electrochemical gas phase oxidation of hydrogen chloride to chlorine: Model-based analysis of transport and reaction mechanisms. Electrochimica Acta, 2019, 324, 134780.	2.6	4
48	Editorial on Special Issue Electrolysis Processes. Processes, 2020, 8, 578.	1.3	3
49	Scale up of Transmembrane NADH Oxidation in Synthetic Giant Vesicles. Bioconjugate Chemistry, 2021, 32, 897-903.	1.8	3
50	Electron Transfer Between Enzymes and Electrodes. Advances in Biochemical Engineering/Biotechnology, 2017, 167, 39-85.	0.6	2
51	Precise determination of LJ parameters and Eucken correction factors for a more accurate modeling of transport properties in gases. Heat and Mass Transfer, 2020, 56, 2515-2527.	1.2	2
52	Model-Based Analysis of the Limiting Mechanisms in the Gas-Phase Oxidation of HCl Employing an Oxygen Depolarized Cathode. Journal of the Electrochemical Society, 2020, 167, 013537.	1.3	2
53	Energy Conversion Based on Bio(electro)catalysts. , 2017, , 757-777.		2
54	Catalyst Layer Modeling. , 2017, , 259-285.		1

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55	Porous Electrodes in Bioelectrochemistry. , 2018, , 392-401.		1
56	Elektroenzymatischer Reaktor fÃ¼r selektive Oxidation. Chemie-Ingenieur-Technik, 2014, 86, 1445-1445.	0.4	0
57	A Guide to Concentration Alternating Frequency Response Analysis of Fuel Cells. Journal of Visualized Experiments, 2019, , .	0.2	0