

# Miroslav Gal

## List of Publications by Year in descending order

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101  
papers

1,692  
citations

257450

24  
h-index

361022

35  
g-index

103  
all docs

103  
docs citations

103  
times ranked

2346  
citing authors

#	ARTICLE	IF	CITATIONS
1	The oxidation of natural flavonoid quercetin. <i>Chemical Communications</i> , 2012, 48, 3433.	4.1	108
2	On the stability of the bioactive flavonoids quercetin and luteolin under oxygen-free conditions. <i>Analytical and Bioanalytical Chemistry</i> , 2012, 402, 975-982.	3.7	89
3	Utilization of Fenton-like reaction for antibiotics and resistant bacteria elimination in different parts of WWTP. <i>Environmental Toxicology and Pharmacology</i> , 2015, 40, 492-497.	4.0	73
4	3D printed polylactic acid/carbon black electrodes with nearly ideal electrochemical behaviour. <i>Journal of Electroanalytical Chemistry</i> , 2020, 857, 113745.	3.8	58
5	The oxidation mechanism of the antioxidant quercetin in nonaqueous media. <i>Electrochimica Acta</i> , 2011, 56, 7421-7427.	5.2	51
6	One-Electron Reduction of an $\alpha$ -Extended Viologen- $\beta$ -Phenylene-bis-4,4'-((1-aryl-2,6-diphenylpyridinium) Dication. <i>Journal of Physical Chemistry A</i> , 2005, 109, 10862-10869.	2.5	43
7	Single-Molecule Conductance in a Series of Extended Viologen Molecules. <i>Journal of Physical Chemistry Letters</i> , 2013, 4, 589-595.	4.6	43
8	Zerovalent iron and iron(VI): Effective means for the removal of psychoactive pharmaceuticals and illicit drugs from wastewaters. <i>Science of the Total Environment</i> , 2016, 539, 420-426.	8.0	40
9	Copper electroplating of 3D printed composite electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2020, 858, 113763.	3.8	40
10	Aqueous-Phase Oxidation of Furfural to Maleic Acid Catalyzed by Copper Phosphate Catalysts. <i>Catalysis Letters</i> , 2017, 147, 2714-2723.	2.6	38
11	Music festivals and drugs: Wastewater analysis. <i>Science of the Total Environment</i> , 2019, 659, 326-334.	8.0	37
12	Electrochemical conversion of dinitrogen to ammonia mediated by a complex of fullerene C <sub>60</sub> and $\beta$ -cyclodextrin. <i>Chemical Communications</i> , 2007, , 2270-2272.	4.1	36
13	Pharmaceuticals, drugs, and resistant microorganisms $\hat{=}$ environmental impact on population health. <i>Current Opinion in Environmental Science and Health</i> , 2019, 9, 40-48.	4.1	35
14	3D printed polyvinyl alcohol ferrate(VI) capsules: Effective means for the removal of pharmaceuticals and illicit drugs from wastewater. <i>Chemical Engineering Journal</i> , 2018, 349, 269-275.	12.7	34
15	Helquats, helical extended diquats, as fast electron transfer systems. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 1550.	2.8	33
16	Four cobalt(III) Schiff base complexes $\hat{=}$ Structural, spectroscopic and electrochemical studies. <i>Inorganica Chimica Acta</i> , 2017, 462, 23-29.	2.4	33
17	Electrochemical Study of the Eu <sup>III</sup> /Eu <sup>II</sup> Redox Properties of Complexes with Potential MRI Ligands. <i>European Journal of Inorganic Chemistry</i> , 2013, 2013, 3217-3223.	2.0	32
18	UV/VIS spectroelectrochemistry with 3D printed electrodes. <i>Journal of Electroanalytical Chemistry</i> , 2020, 857, 113760.	3.8	32

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19	Search for the form of fullerene C60 in aqueous medium. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 14095.	2.8	31
20	Electron dopable molecular wires based on the extended viologens. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 11422.	2.8	29
21	Dominant psychoactive drugs in the Central European region: A wastewater study. <i>Forensic Science International</i> , 2016, 267, 42-51.	2.2	28
22	Wastewater analysis: the mean of the monitoring of frequently prescribed pharmaceuticals in Slovakia. <i>Environmental Monitoring and Assessment</i> , 2016, 188, 18.	2.7	27
23	Bovine serum albumin film as a template for controlled nanopancake and nanobubble formation: In situ atomic force microscopy and nanolithography study. <i>Colloids and Surfaces B: Biointerfaces</i> , 2012, 94, 213-219.	5.0	26
24	PVC degradation by Fenton reaction and biological decomposition. <i>Polymer Degradation and Stability</i> , 2015, 120, 226-231.	5.8	26
25	Hospital Wastewater as Source of Specific Micropollutants, Antibiotic-Resistant Microorganisms, Viruses, and Their Elimination. <i>Antibiotics</i> , 2021, 10, 1070.	3.7	26
26	Electrochemical impedance of nitrogen fixation mediated by fullerene-cyclodextrin complex. <i>Electrochimica Acta</i> , 2008, 53, 7445-7450.	5.2	24
27	Mathematical modeling based on RT-qPCR analysis of SARS-CoV-2 in wastewater as a tool for epidemiology. <i>Scientific Reports</i> , 2021, 11, 19456.	3.3	24
28	Extended viologen as a source of electric oscillations. <i>Physical Chemistry Chemical Physics</i> , 2011, 13, 4365.	2.8	22
29	Novel aminoalkyl tris-cyclometalated iridium complexes as cellular stains. <i>Dalton Transactions</i> , 2016, 45, 17420-17430.	3.3	20
30	Search for a One-Electron Reduction of the Cation Radical of an $\alpha$ -Extended Viologen, $\alpha$ -p-Phenylene-bis-4,4[ <sup>E1</sup> ](1-Aryl-2,6-Diphenylpyridinium). <i>Journal of the Electrochemical Society</i> , 2006, 153, E179.	2.9	19
31	Evaluation of different smoking habits during music festivals through wastewater analysis. <i>Environmental Toxicology and Pharmacology</i> , 2015, 40, 1015-1020.	4.0	19
32	Voltammetry of hypoxic cells radiosensitizer etanidazole radical anion in water. <i>Bioelectrochemistry</i> , 2010, 78, 118-123.	4.6	18
33	Spectroelectrochemical determination of the electron consumption. <i>Analytica Chimica Acta</i> , 2011, 697, 23-26.	5.4	18
34	The effect of quercetin on the electrical properties of model lipid membranes and human glioblastoma cells. <i>Bioelectrochemistry</i> , 2018, 124, 133-141.	4.6	18
35	On the Adsorption of Extended Viologens at the Electrode   Electrolyte Interface. <i>Langmuir</i> , 2010, 26, 17232-17236.	3.5	17
36	Hospital wastewaters treatment: Fenton reaction vs. BDDE vs. ferrate(VI). <i>Environmental Science and Pollution Research</i> , 2019, 26, 31812-31821.	5.3	16

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37	Oxidation pathways of natural dye hematoxylin in aqueous solution. Collection of Czechoslovak Chemical Communications, 2010, 75, 1097-1114.	1.0	15
38	Wastewater-Based Epidemiology as an Early Warning System for the Spreading of SARS-CoV-2 and Its Mutations in the Population. International Journal of Environmental Research and Public Health, 2021, 18, 5629.	2.6	15
39	Occurrence of pharmaceuticals, illicit drugs, and resistant types of bacteria in hospital effluent and their effective degradation by boron-doped diamond electrodes. Monatshefte für Chemie, 2016, 147, 97-103.	1.8	14
40	Boron doped diamond electrode – The elimination of psychoactive drugs and resistant bacteria from wastewater. Vacuum, 2020, 171, 108957.	3.5	14
41	Correlation of the formation constant of ferrocene–cyclodextrin complexes with dielectric properties of the aqueous DMSO solution. Journal of Organometallic Chemistry, 2011, 696, 1404-1408.	1.8	13
42	Effect of ferrate on green algae removal. Environmental Science and Pollution Research, 2017, 24, 21894-21901.	5.3	13
43	Irregular polarographic currents obey Feigenbaum universality route from order to chaos. Collection of Czechoslovak Chemical Communications, 2009, 74, 1559-1570.	1.0	13
44	Effects of structures of molybdenum catalysts on selectivity in gas-phase propylene oxidation. Chinese Journal of Catalysis, 2015, 36, 1900-1909.	14.0	12
45	Impedance study of hypoxic cells radiosensitizer etanidazole radical anion in water. Collection of Czechoslovak Chemical Communications, 2009, 74, 1571-1581.	1.0	12
46	Characterization of cadmium ion transport across model and real biomembranes and indication of induced damage of plant tissues. Monatshefte für Chemie, 2015, 146, 819-829.	1.8	11
47	Electrochemistry and Spectroelectrochemistry of Bioactive Hydroxyquinolines: A Mechanistic Study. Journal of Physical Chemistry B, 2015, 119, 6074-6080.	2.6	11
48	Electrolytic ferrate preparation in various hydroxide molten media. Journal of Applied Electrochemistry, 2015, 45, 1035-1042.	2.9	11
49	Redox potentials and binding enhancement of fullerene and fullerene–cyclodextrin systems in water and dimethylsulfoxide. Carbon, 2010, 48, 153-162.	10.3	10
50	Monitoring of micropollutants and resistant bacteria in wastewater and their effective removal by boron doped diamond electrode. Monatshefte für Chemie, 2017, 148, 539-548.	1.8	10
51	The influence of selected nanomaterials on microorganisms. Monatshefte für Chemie, 2017, 148, 525-530.	1.8	10
52	Photoisomerization of Bis(tridentate) 2,6-Bis(1 <i>H</i> -pyrazol-1-yl)pyridine Ligands Exhibiting a Multi- <i>π</i> -Anthracene Skeleton. Chemistry - A European Journal, 2017, 23, 10100-10109.	3.3	10
53	Electrophoretic Light Scattering and Electrochemical Impedance Spectroscopy Studies of Lipid Bilayers Modified by Cinnamic Acid and Its Hydroxyl Derivatives. Membranes, 2020, 10, 343.	3.0	10
54	Monitoring of the Surface Charge Density Changes of Human Glioblastoma Cell Membranes upon Cinnamic and Ferulic Acids Treatment. International Journal of Molecular Sciences, 2020, 21, 6972.	4.1	10

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55	Effervescent ferrate(VI)-based tablets as an effective means for removal SARS-CoV-2 RNA, pharmaceuticals and resistant bacteria from wastewater. <i>Journal of Water Process Engineering</i> , 2021, 43, 102223.	5.6	10
56	The influence of the host-guest interaction on the oxidation of natural flavonoid dyes. <i>Collection of Czechoslovak Chemical Communications</i> , 2011, 76, 1651-1667.	1.0	9
57	The Modulating Effect of p-Coumaric Acid on The Surface Charge Density of Human Glioblastoma Cell Membranes. <i>International Journal of Molecular Sciences</i> , 2019, 20, 5286.	4.1	9
58	New proton donors in electrochemical mechanistic studies in non-aqueous solution dimethylsulfoxide: Chlorinated hydroxybenzonitriles. <i>Journal of Electroanalytical Chemistry</i> , 2012, 685, 33-36.	3.8	8
59	On the Mechanism of Electrochemical Transpassive Dissolution of Fe-Based Anodes in Binary Hydroxide Media. <i>Journal of the Electrochemical Society</i> , 2014, 161, C62-C68.	2.9	8
60	Electrical properties of phosphatidylcholine bilayers containing canthaxanthin or $\beta$ -carotene, investigated by electrochemical impedance spectroscopy. <i>Journal of Electroanalytical Chemistry</i> , 2017, 799, 563-569.	3.8	8
61	Tuning phospholipid bilayer permeability by flavonoid apigenin: Electrochemical and atomic force microscopy study. <i>Journal of Electroanalytical Chemistry</i> , 2018, 821, 67-72.	3.8	8
62	The modulating effect of lipid bilayer/p-coumaric acid interactions on electrical properties of model lipid membranes and human glioblastoma cells. <i>Bioorganic Chemistry</i> , 2019, 92, 103242.	4.1	8
63	Transfer of Charge in a Particulate Iron-Electrolyte System. <i>Collection of Czechoslovak Chemical Communications</i> , 2000, 65, 1515-1526.	1.0	8
64	Nanoshaving of bovine serum albumin films adsorbed on monocrystalline surfaces and interfaces. <i>Collection of Czechoslovak Chemical Communications</i> , 2011, 76, 1075-1087.	1.0	7
65	On the Stability of Fullerene C <sub>60</sub> in Aqueous Medium. <i>Fullerenes Nanotubes and Carbon Nanostructures</i> , 2012, 20, 737-742.	2.1	7
66	Voltammetric and impedance study of the influence of the anode composition on the electrochemical ferrate(VI) production in molten NaOH. <i>Electrochimica Acta</i> , 2013, 110, 581-586.	5.2	7
67	Electrochemical Ferrates(VI) Preparation and Wastewater Treatment. <i>ACS Symposium Series</i> , 2016, , 221-240.	0.5	7
68	Determination of illicit drugs and their metabolites contamination on banknotes. <i>Monatshefte für Chemie</i> , 2016, 147, 39-43.	1.8	7
69	Electrochemical and AFM study of the interaction of recombinant human cathelicidin LL-37 with various supported bilayer lipid membranes. <i>Journal of Electroanalytical Chemistry</i> , 2018, 821, 40-46.	3.8	7
70	Chronopotentiometric Analysis of Proteins at Charged Electrode Surfaces. <i>Electroanalysis</i> , 2019, 31, 1868-1872.	2.9	7
71	Impact of the Schiff base ligand substituents on the solid state and solution properties of eleven iron(III) complexes. <i>New Journal of Chemistry</i> , 2019, 43, 13916-13928.	2.8	7
72	Low-spin and spin-crossover iron(II) complexes with pyridyl-benzimidazole ligands: synthesis, and structural, magnetic and solution study. <i>Dalton Transactions</i> , 2020, 49, 17786-17795.	3.3	7

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73	Interactions of nanobubbles with bovine serum albumin and papain films on gold surfaces. <i>Biointerphases</i> , 2011, 6, 164-170.	1.6	5
74	Inclusion complex of $\beta$ -cyclodextrin and the extended viologen dication: a model of an insulated molecular wire. <i>Journal of Inclusion Phenomena and Macrocyclic Chemistry</i> , 2011, 70, 461-469.	1.6	5
75	Electrostatic Interaction of Negatively Charged Core-Shell Nanoparticles with Antitumoral Cationic Platinum-Based Complexes. <i>European Journal of Inorganic Chemistry</i> , 2011, 2011, 3289-3294.	2.0	5
76	Gas-phase epoxidation of propylene over iron-containing catalysts: the effect of iron incorporation in the support matrix. <i>Catalysis Science and Technology</i> , 2014, 4, 2664-2673.	4.1	5
77	Impact of the Extended 1,1'-Bipyridinium Structure on the Electron Transfer and $\pi$ -Dimer Formation. Spectroelectrochemical and Computational Study. <i>Journal of Physical Chemistry C</i> , 2015, 119, 18056-18065.	3.1	5
78	Ultrasensitive impedimetric immunosensor for influenza A detection. <i>Journal of Electroanalytical Chemistry</i> , 2020, 858, 113813.	3.8	5
79	Electrochemical processes during plating Fe powder particles by Ni and Ni/Cu coating in the fluidized bed. <i>Journal of Solid State Electrochemistry</i> , 2001, 5, 502-506.	2.5	4
80	Electrochemical impedance and conductivity measurements in a heterogeneous Fe powder particle-electrolyte system with or without electrochemical reaction. <i>Journal of Applied Electrochemistry</i> , 2007, 37, 737-746.	2.9	4
81	Metronidazole radical anion formation studied by means of electrochemical impedance spectroscopy. <i>Collection of Czechoslovak Chemical Communications</i> , 2011, 76, 1607-1617.	1.0	3
82	Enhanced hydrogen bioproduction from bird-cherry leaves using enzyme mixture. <i>Monatshefte für Chemie</i> , 2016, 147, 201-206.	1.8	3
83	Automotive industry wastewater treatment by mixture of enzymes. <i>Monatshefte für Chemie</i> , 2016, 147, 159-164.	1.8	3
84	Treatment of hazardous leachate from landfill using ultrasound/H <sub>2</sub> O <sub>2</sub> system. <i>Monatshefte für Chemie</i> , 2017, 148, 563-570.	1.8	3
85	Electrochemical characterization of pyrophosphate-based catalysts for the oxidation of furfural in aqueous phase. <i>Journal of Electroanalytical Chemistry</i> , 2018, 821, 126-130.	3.8	3
86	Study of permeabilization of bacterial membrane by electrochemical methods. <i>Journal of Electroanalytical Chemistry</i> , 2020, 857, 113761.	3.8	3
87	The influence of the pH on the incorporation of caffeic acid into biomimetic membranes and cancer cells. <i>Scientific Reports</i> , 2022, 12, 3692.	3.3	3
88	Correlation of the first reduction potential of selected radiosensitizers determined by cyclic voltammetry with theoretical calculations. <i>Collection of Czechoslovak Chemical Communications</i> , 2011, 76, 937-946.	1.0	2
89	IR spectroelectrochemistry as efficient technique for elucidation of reduction mechanism of chlorine substituted 1,10-phenanthrolines. <i>Journal of Electroanalytical Chemistry</i> , 2020, 859, 113888.	3.8	2
90	Carbon family nanomaterials - new applications and technologies. <i>Acta Chimica Slovaca</i> , 2020, 13, 77-87.	0.8	2

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91	Ferrate (VI), Fenton Reaction and Its Modification: An Effective Method of Removing SARS-CoV-2 RNA from Hospital Wastewater. <i>Pathogens</i> , 2022, 11, 450.	2.8	2
92	Search for a One-Electron Reduction of the Cation Radical of an Extended Viologen , p-Phenylene-bis-4,4'-(1-Aryl-2,6-Diphenylpyridinium). <i>ECS Transactions</i> , 2006, 2, 35-44.	0.5	1
93	Electrochemical Impedance Measurements on a Stirred Heterogeneous System of Conductive/Nonconductive Powder Particles Electrolyte. <i>Journal of the Electrochemical Society</i> , 2008, 155, D542.	2.9	1
94	Adsorption of pesticide benfluralin at the electrochemical interface. <i>Journal of Electroanalytical Chemistry</i> , 2013, 710, 36-40.	3.8	1
95	Electrochemical determination of basic biochemical properties of enzyme enterokinase. <i>Monatshefte für Chemie</i> , 2015, 146, 755-759.	1.8	1
96	Electrolytic preparation of nanosized Cu/Ni-Cu multilayered coatings. <i>Chemical Papers</i> , 2015, 69, .	2.2	1
97	Native and denatured enzyme enterokinase determined by electrochemical methods. <i>Monatshefte für Chemie</i> , 2017, 148, 549-553.	1.8	1
98	Two-Photon Excitable Iridium Complex Containing Dipyrazolyltriazine as Cellular Imaging Dyes. <i>European Journal of Inorganic Chemistry</i> , 2018, 2018, 4533-4542.	2.0	1
99	Anomalous Coating of Iron Microparticles by Ni-Co Layers in the 3D Stirred Heterogeneous System: Impedance Study. <i>Journal of the Electrochemical Society</i> , 2009, 156, D462.	2.9	0
100	Chronopotentiometric Analysis of Single Histones and Histone Octamer at Charged Surfaces. <i>ChemElectroChem</i> , 2021, 8, 3360-3365.	3.4	0
101	Electrochemical study of the stability of ferrates(VI) in low temperature molten hydroxide. <i>Acta Chimica Slovaca</i> , 2013, 6, 202-205.	0.8	0