

# Martin Vesely

## List of Publications by Year in descending order

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57  
papers

838  
citations

623188

14  
h-index

552369

26  
g-index

60  
all docs

60  
docs citations

60  
times ranked

1354  
citing authors

#	ARTICLE	IF	CITATIONS
1	Recent Developments on the Single Atom Supported at 2D Materials Beyond Graphene as Catalysts. ACS Catalysis, 2020, 10, 9634-9648.	5.5	102
2	Nanoscale chemical imaging of solid-liquid interfaces using tip-enhanced Raman spectroscopy. Nanoscale, 2018, 10, 1815-1824.	2.8	68
3	Tailoring of PEEK bioactivity for improved cell interaction: plasma treatment in action. RSC Advances, 2015, 5, 41428-41436.	1.7	50
4	Enhancing PEM water electrolysis efficiency by reducing the extent of Ti gas diffusion layer passivation. Journal of Applied Electrochemistry, 2018, 48, 713-723.	1.5	47
5	Processing, microstructure and elastic properties of mullite-based ceramic foams prepared by direct foaming with wheat flour. Journal of the European Ceramic Society, 2016, 36, 109-120.	2.8	43
6	On the mechanism of colloidal silica action to improve flow properties of pharmaceutical excipients. International Journal of Pharmaceutics, 2019, 556, 383-394.	2.6	38
7	Nickel Poisoning of a Cracking Catalyst Unravelling by Single-Particle X-ray Fluorescence-Diffraction-Absorption Tomography. Angewandte Chemie - International Edition, 2020, 59, 3922-3927.	7.2	36
8	Large-Scale Production of Nanocrystalline Black Phosphorus Ceramics. ACS Applied Materials & Interfaces, 2020, 12, 7381-7391.	4.0	23
9	Prediction and Evaluation of Time-Dependent Effective Self-diffusivity of Water and Other Effective Transport Properties Associated with Reconstructed Porous Solids. Transport in Porous Media, 2015, 110, 81-111.	1.2	22
10	Universal Method for Large-Scale Synthesis of Layered Transition Metal Dichalcogenides. Chemistry - A European Journal, 2017, 23, 10177-10186.	1.7	22
11	3D X-ray Nanotomography Reveals Different Carbon Deposition Mechanisms in a Single Catalyst Particle. ChemCatChem, 2021, 13, 2494-2507.	1.8	22
12	Polyamide thin-film composite membranes for potential raw biogas purification: Experiments and modeling. Separation and Purification Technology, 2016, 167, 163-173.	3.9	21
13	Stochastic reconstruction of mixed-matrix membranes and evaluation of effective permeability. Computational Materials Science, 2014, 89, 142-156.	1.4	18
14	Preparation of alloyed and core-shell Au/Ag bimetallic nanostructures on glass substrate by solid state dewetting. Journal of Alloys and Compounds, 2020, 829, 154627.	2.8	17
15	Effect of lipid nanoparticle formulations on skin delivery of a lipophilic substance. European Journal of Pharmaceutics and Biopharmaceutics, 2016, 108, 289-296.	2.0	16
16	Functionalized polyethylene naphthalate for cytocompatibility improvement. Reactive and Functional Polymers, 2016, 100, 44-52.	2.0	14
17	On the measurement of transport parameters of porous solids in permeation and Wicke-Kallenbach cells. Chemical Engineering Science, 2014, 118, 192-207.	1.9	13
18	Tuning Surface Chemistry of Polyetheretherketone by Gold Coating and Plasma Treatment. Nanoscale Research Letters, 2017, 12, 424.	3.1	13

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19	Functionalized germanane/SWCNT hybrid films as flexible anodes for lithium-ion batteries. <i>Nanoscale Advances</i> , 2021, 3, 4440-4446.	2.2	13
20	The influence of various deposition techniques on the photoelectrochemical properties of the titanium dioxide thin film. <i>Journal of Sol-Gel Science and Technology</i> , 2013, 65, 452-458.	1.1	12
21	Nanowires and nanodots prepared with polarized KrF laser on polyethersulphone. <i>Materials Letters</i> , 2015, 144, 15-18.	1.3	12
22	Electrochemical Exfoliation of Janus-like BiTeI Nanosheets for Electrocatalytic Nitrogen Reduction. <i>ACS Applied Nano Materials</i> , 2021, 4, 590-599.	2.4	12
23	Photocatalytic activity of twist-angle stacked 2D TaS <sub>2</sub> . <i>Npj 2D Materials and Applications</i> , 2021, 5, .	3.9	12
24	High power plasma as an efficient tool for polymethylpentene cytocompatibility enhancement. <i>RSC Advances</i> , 2016, 6, 76000-76010.	1.7	11
25	Autogenous Formation of Gold on Layered Black Phosphorus for Catalytic Purification of Waste Water. <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 22702-22709.	4.0	11
26	Prins cyclization for the preparation of 2-isobutyl-4-methyl-tetrahydro-2H-pyran-4-ol using supported heteropoly acids. <i>Research on Chemical Intermediates</i> , 2016, 42, 6991-7003.	1.3	10
27	Surface analysis of ripple pattern on PS and PEN induced with ring-shaped mask due to KrF laser treatment. <i>Surface and Interface Analysis</i> , 2017, 49, 25-33.	0.8	10
28	Characterization and use of MoO <sub>3</sub> modified aluminosilicates in Prins cyclization of isoprenol and isovaleraldehyde. <i>Journal of Porous Materials</i> , 2018, 25, 273-281.	1.3	10
29	Creation of Gold Nanoparticles in ZnO by Ion Implantation – DFT and Experimental Studies. <i>Nanomaterials</i> , 2020, 10, 2392.	1.9	10
30	The interplay of plasma treatment and gold coating and ultra-high molecular weight polyethylene: On the cytocompatibility. <i>Materials Science and Engineering C</i> , 2017, 71, 125-131.	3.8	9
31	Structure and mechanical characterization of Mg-Nd-Zn alloys prepared by different processes. <i>IOP Conference Series: Materials Science and Engineering</i> , 2017, 179, 012018.	0.3	9
32	Chemical Imaging of Hierarchical Porosity Formation within a Zeolite Crystal Visualized by Small-Angle X-Ray Scattering and In-Situ Fluorescence Microscopy. <i>Angewandte Chemie - International Edition</i> , 2021, 60, 13803-13806.	7.2	9
33	The Role of Alkali Cation Intercalates on the Electrochemical Characteristics of Nb <sub>2</sub> CT <sub>x</sub> MXene for Energy Storage. <i>Chemistry - A European Journal</i> , 2021, 27, 13235-13241.	1.7	9
34	Optomechanical Processing of Silver Colloids: New Generation of Nanoparticle-Polymer Composites with Bactericidal Effect. <i>International Journal of Molecular Sciences</i> , 2021, 22, 312.	1.8	9
35	Immobilization of Methyltrioxorhenium on Mesoporous Aluminosilicate Materials. <i>Materials</i> , 2014, 7, 2650-2668.	1.3	8
36	On the Effect of the M <sup>3+</sup> Origin on the Properties and Aldol Condensation Performance of MgM <sup>3+</sup> Hydroxalicates and Mixed Oxides. <i>Catalysts</i> , 2021, 11, 992.	1.6	7

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37	Photochemical Degradation of Polybrominated Diphenyl Ethers in Micro Photo-Reactor. Procedia Engineering, 2012, 42, 1378-1382.	1.2	6
38	The structural and optical properties of metal ion-implanted GaN. Nuclear Instruments & Methods in Physics Research B, 2016, 371, 254-257.	0.6	6
39	PtSe <sub>2</sub> on a reduced graphene oxide foil for the alkaline hydrogen evolution reaction. Materials Advances, 2022, 3, 4348-4358.	2.6	6
40	The physico-chemical structure and activity of hydrodesulphurization catalysts aged by accelerated method. Catalysis Today, 2015, 256, 261-268.	2.2	5
41	Ferromagnetic and paramagnetic magnetization of implanted GaN:Ho,Tb,Sm,Tm films. Journal of Applied Physics, 2015, 117, .	1.1	5
42	Nickel Poisoning of a Cracking Catalyst Unravelling by Single-Particle X-ray Fluorescence-Diffraction-Absorption Tomography. Angewandte Chemie, 2020, 132, 3950-3955.	1.6	5
43	Mimicking industrial aging in fluid catalytic cracking: A correlative microscopy approach to unravel inter-particle heterogeneities. Journal of Catalysis, 2021, 404, 634-646.	3.1	5
44	Model for photodegradation of polybrominated diphenyl ethers. Environmental Science and Pollution Research, 2015, 22, 4949-4963.	2.7	4
45	Critical evaluation of parameters affecting Cu nanoparticles formation and their activity in dimethyl adipate hydrogenolysis. Catalysis Today, 2022, 387, 61-71.	2.2	4
46	Full-field hard X-ray microscopy based on aberration-corrected Be CRLs. , 2019, , .		4
47	Modification of Cobalt Oxide Electrochemically Deposited on Stainless Steel Meshes with Co-Mn Thin Films Prepared by Magnetron Sputtering: Effect of Preparation Method and Application to Ethanol Oxidation. Catalysts, 2021, 11, 1453.	1.6	4
48	Ion-induced nanopattern propagation on metallic surfaces. Physical Review B, 2015, 92, .	1.1	3
49	Photochemical degradation of polybrominated diphenyl ethers in microreactor. Research on Chemical Intermediates, 2015, 41, 9373-9381.	1.3	3
50	Reconstructing the microstructure of polyimide-silicalite mixed matrix membranes and their particle connectivity using FIB-SEM tomography. Journal of Microscopy, 2018, 269, 230-246.	0.8	3
51	Chemical Imaging of Hierarchical Porosity Formation within a Zeolite Crystal Visualized by Small-Angle X-ray Scattering and In-Situ Fluorescence Microscopy. Angewandte Chemie, 2021, 133, 13922-13925.	1.6	2
52	Engineered Cu-PEN Composites at the Nanoscale: Preparation and Characterisation. Nanomaterials, 2022, 12, 1220.	1.9	2
53	Pore structure and effective permeability of metallic filters. Journal of Physics: Conference Series, 2013, 410, 012110.	0.3	1
54	GaN:Co epitaxial layers grown by MOVPE. Journal of Crystal Growth, 2015, 414, 62-68.	0.7	1

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55	Positive temperature dependence of compressive properties in an AlNiCo poly-quasicrystal fabricated by mechanical alloying and spark plasma sintering. Scripta Materialia, 2020, 187, 169-174.	2.6	1
56	Efficient nanostructure construction on polymer substrates by plasma treatment for tissue engineering. , 2016, , .		0
57	Innentitelbild: Chemical Imaging of Hierarchical Porosity Formation within a Zeolite Crystal Visualized by Smallâ€Angle Xâ€Ray Scattering and Inâ€Situ Fluorescence Microscopy (Angew. Chem. 25/2021). Angewandte Chemie, 2021, 133, 13802-13802.	1.6	0