

# RafaÅ, J WrÃ³bel

## List of Publications by Year in descending order

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81  
papers

2,034  
citations

236612

25  
h-index

264894

42  
g-index

81  
all docs

81  
docs citations

81  
times ranked

2603  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly microporous activated carbons from biomass for CO <sub>2</sub> capture and effective micropores at different conditions. Journal of CO <sub>2</sub> Utilization, 2017, 18, 73-79.	3.3	265
2	Comparison of Optimized Isotherm Models and Error Functions for Carbon Dioxide Adsorption on Activated Carbon. Journal of Chemical & Engineering Data, 2015, 60, 3148-3158.	1.0	99
3	Antibacterial properties of TiO <sub>2</sub> modified with reduced graphene oxide. Ecotoxicology and Environmental Safety, 2018, 147, 788-793.	2.9	89
4	CO Oxidation on a CeO <sub>x</sub> /Pt(111) Inverse Model Catalyst Surface: Catalytic Promotion and Tuning of Kinetic Phase Diagrams. Journal of Physical Chemistry C, 2008, 112, 20012-20017.	1.5	79
5	Low-cost nitrogen-doped activated carbon prepared by polyethylenimine (PEI) with a convenient method for supercapacitor application. Electrochimica Acta, 2019, 294, 183-191.	2.6	78
6	Physical properties of pyridinium ionic liquids. Journal of Chemical Thermodynamics, 2012, 55, 159-165.	1.0	72
7	Nitrogen-doped, metal-modified rutile titanium dioxide as photocatalysts for water remediation. Applied Catalysis B: Environmental, 2015, 162, 310-318.	10.8	57
8	Improvement of CO <sub>2</sub> uptake of activated carbons by treatment with mineral acids. Chemical Engineering Journal, 2017, 309, 159-171.	6.6	53
9	Using of carbon nanotubes and nano carbon black for electrical conductivity adjustment of pressure-sensitive adhesives. International Journal of Adhesion and Adhesives, 2012, 36, 20-24.	1.4	50
10	Performance of two photocatalytic membrane reactors for treatment of primary and secondary effluents. Catalysis Today, 2014, 236, 135-145.	2.2	48
11	Photocatalytic degradation of acetic acid in the presence of visible light-active TiO <sub>2</sub> -reduced graphene oxide photocatalysts. Catalysis Today, 2017, 280, 108-113.	2.2	44
12	A study on the stability of polyethersulfone ultrafiltration membranes in a photocatalytic membrane reactor. Journal of Membrane Science, 2015, 495, 176-186.	4.1	43
13	The influence of feed composition on fouling and stability of a polyethersulfone ultrafiltration membrane in a photocatalytic membrane reactor. Chemical Engineering Journal, 2017, 310, 360-367.	6.6	42
14	Microscopic studies on TiO <sub>2</sub> fouling of MF/UF polyethersulfone membranes in a photocatalytic membrane reactor. Journal of Membrane Science, 2014, 470, 356-368.	4.1	41
15	Cerium oxide layers on the Cu(111) surface: Substrate-mediated redox properties. Surface Science, 2008, 602, 436-442.	0.8	38
16	Titanium dioxide modified with various amines used as sorbents of carbon dioxide. New Journal of Chemistry, 2017, 41, 1549-1557.	1.4	37
17	Surface characteristics of KOH-treated commercial carbons applied for CO <sub>2</sub> adsorption. Adsorption Science and Technology, 2018, 36, 478-492.	1.5	37
18	Influence of an Electronic Structure of N-TiO <sub>2</sub> on Its Photocatalytic Activity towards Decomposition of Acetaldehyde under UV and Fluorescent Lamps Irradiation. Catalysts, 2018, 8, 85.	1.6	37

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19	Solidâ” Gas Reaction with Adsorption as the Rate Limiting Step. <i>Journal of Physical Chemistry A</i> , 2006, 110, 9219-9224.	1.1	35
20	Raman study of surface optical phonons in ZnO(Mn) nanoparticles. <i>Journal of Alloys and Compounds</i> , 2014, 585, 214-219.	2.8	35
21	Fe/EuroPh catalysts for limonene oxidation to 1,2-epoxylimonene, its diol, carveol, carvone and perillyl alcohol. <i>Catalysis Today</i> , 2016, 268, 111-120.	2.2	33
22	One-Step Synergistic Effect to Produce Two-Dimensional N-Doped Hierarchical Porous Carbon Nanosheets for High-Performance Flexible Supercapacitors. <i>ACS Applied Energy Materials</i> , 2020, 3, 8562-8572.	2.5	32
23	Activated Carbons from Molasses as CO <sub>2</sub> Sorbents. <i>Acta Physica Polonica A</i> , 2016, 129, 402-404.	0.2	29
24	Oxidation of limonene using activated carbon modified in dielectric barrier discharge plasma. <i>Applied Surface Science</i> , 2017, 420, 873-881.	3.1	28
25	Ceria nanoformations in CO oxidation on Pt(111): Promotional effects and reversible redox behaviour. <i>Surface Science</i> , 2007, 601, 4843-4848.	0.8	27
26	Photocatalytic decomposition of benzo-[a]-pyrene on the surface of acrylic, latex and mineral paints. Influence of paint composition. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2014, 286, 10-15.	2.0	27
27	Carbon Spheres as CO <sub>2</sub> Sorbents. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 3349.	1.3	26
28	Study of the Kinetics of Nitriding of Nanocrystalline Iron Using TG and XRD Methods. <i>Solid State Phenomena</i> , 2003, 94, 185-188.	0.3	25
29	Alkali-treated titanium dioxide as adsorbent for CO <sub>2</sub> capture from air. <i>Microporous and Mesoporous Materials</i> , 2015, 202, 241-249.	2.2	25
30	Influence of pH of sol-gel solution on phase composition and photocatalytic activity of TiO <sub>2</sub> under UV and visible light. <i>Materials Research Bulletin</i> , 2016, 84, 152-161.	2.7	25
31	Adsorption dynamics of chlorinated hydrocarbons from multi-component aqueous solution onto activated carbon. <i>Journal of Hazardous Materials</i> , 2006, 137, 1479-1487.	6.5	23
32	Improvement of photocatalytic activity of silicate paints by removal of K <sub>2</sub> SO <sub>4</sub> . <i>Atmospheric Environment</i> , 2015, 115, 47-52.	1.9	23
33	N-doped activated carbon derived from furfuryl alcohol â€” development of porosity, properties, and adsorption of carbon dioxide and ethene. <i>Chemical Engineering Journal</i> , 2022, 427, 131709.	6.6	23
34	Indonesian coral reef habitats reveal exceptionally high species richness and biodiversity of diatom assemblages. <i>Estuarine, Coastal and Shelf Science</i> , 2021, 261, 107551.	0.9	21
35	Influence of Subsurface Oxygen in the Catalytic CO Oxidation on Pd(111). <i>Journal of Physical Chemistry C</i> , 2015, 119, 5386-5394.	1.5	19
36	Preparation and Characterization of Rutile-Type TiO <sub>2</sub> Doped with Cu. <i>Journal of Materials Engineering and Performance</i> , 2015, 24, 1243-1252.	1.2	19

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37	Synthesis and antibacterial properties of Fe <sub>3</sub> O <sub>4</sub> -Ag nanostructures. Polish Journal of Chemical Technology, 2016, 18, 110-116.	0.3	19
38	Preparation and characterisation of carbon spheres for carbon dioxide capture. Journal of Porous Materials, 2019, 26, 19-27.	1.3	19
39	Carbon and sulphur on Pd(111) and Pt(111): Experimental problems during cleaning of the substrates and impact of sulphur on the redox properties of CeOx in the CeOx/Pd(111) system. Vacuum, 2010, 84, 1258-1265.	1.6	17
40	TiO <sub>2</sub> /titanate composite nanorod obtained from various alkali solutions as CO <sub>2</sub> sorbents from exhaust gases. Microporous and Mesoporous Materials, 2016, 231, 117-127.	2.2	17
41	Photocatalytic oxidation of nitric oxide over AgNPs/TiO <sub>2</sub> -loaded carbon fiber cloths. Journal of Environmental Management, 2020, 262, 110343.	3.8	17
42	Adsorption of carbon dioxide on TEPA-modified TiO <sub>2</sub> /titanate composite nanorods. New Journal of Chemistry, 2017, 41, 7870-7885.	1.4	16
43	Geochemistry of cobalt-rich ferromanganese crusts from the Perth Abyssal Plain (E Indian Ocean). Ore Geology Reviews, 2018, 101, 520-531.	1.1	16
44	Preparation of Activated Carbon from Beet Molasses and TiO <sub>2</sub> as the Adsorption of CO <sub>2</sub> . Acta Physica Polonica A, 2016, 129, 158-161.	0.2	16
45	Studies on the Kinetics of Carbon Deposit Formation on Nanocrystalline Iron Stabilized with Structural Promoters. Journal of Physical Chemistry C, 2014, 118, 15434-15439.	1.5	15
46	Utilisation of XRD for the Determination of the Size Distribution of Nanocrystalline Iron Materials. Solid State Phenomena, 2003, 94, 235-238.	0.3	13
47	High-quality ZrO <sub>2</sub> /Si(001) thin films by a sol-gel process: Preparation and characterization. Journal of Applied Physics, 2010, 107, 094103.	1.1	13
48	Impact on CO <sub>2</sub> Uptake of MWCNT after Acid Treatment Study. Journal of Nanomaterials, 2017, 2017, 1-11.	1.5	13
49	Surface properties tuning of exfoliated graphitic carbon nitride for multiple photocatalytic performance. Solar Energy, 2020, 207, 528-538.	2.9	13
50	Effect of Nano-SiO <sub>2</sub> on the Microstructure and Mechanical Properties of Concrete under High Temperature Conditions. Materials, 2022, 15, 166.	1.3	13
51	Mineralogy of Cobalt-Rich Ferromanganese Crusts from the Perth Abyssal Plain (E Indian Ocean). Minerals (Basel, Switzerland), 2019, 9, 84.	0.8	11
52	TiO <sub>2</sub> Supported on Quartz Wool for Photocatalytic Oxidation of Hydrogen Sulphide. Adsorption Science and Technology, 2014, 32, 765-773.	1.5	10
53	Morphological and molecular identification reveals that waters from an isolated oasis in Tamanrasset (extreme South of Algerian Sahara) are colonized by opportunistic and pollution-tolerant diatom species. Ecological Indicators, 2021, 121, 107104.	2.6	9
54	The Increase of the Microporosity and CO <sub>2</sub> Adsorption Capacity of the Commercial Activated Carbon CWZ-22 by KOH Treatment. , 0, , .		8

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55	Hybrid carbon-TiO <sub>2</sub> spheres: Investigation of structure, morphology and spectroscopic studies. <i>Applied Surface Science</i> , 2019, 469, 684-690.	3.1	8
56	Extreme Enlargement of the Inverted Repeat Region in the Plastid Genomes of Diatoms from the Genus <i>Climaconeis</i> . <i>International Journal of Molecular Sciences</i> , 2021, 22, 7155.	1.8	8
57	Biodiversity of carapace epibiont diatoms in loggerhead sea turtles ( <i>Caretta caretta</i> Linnaeus). <i>Journal of Herpetology</i> , 2021, 55, 1-10.	0.9	8
58	Evaluation and X-Ray Induced Modification of the Cerium Oxidation State in Cerium Calixarene Complexes. <i>Solid State Phenomena</i> , 2007, 128, 115-120.	0.3	6
59	Electrically conductive acrylic pressure-sensitive adhesives containing carbon black. <i>Polish Journal of Chemical Technology</i> , 2011, 13, 77-81.	0.3	6
60	Influence of Elemental Carbon (EC) Coating Covering nc-(Ti,Mo)C Particles on the Microstructure and Properties of Titanium Matrix Composites Prepared by Reactive Spark Plasma Sintering. <i>Materials</i> , 2021, 14, 231.	1.3	6
61	Evaluation of ferrofluid-coated rotating magnetic field-assisted bioreactor for biomass production. <i>Chemical Engineering Journal</i> , 2022, 431, 133913.	6.6	6
62	Basic physiology of <i>Pseudomonas aeruginosa</i> contacted with carbon nanocomposites. <i>Applied Nanoscience (Switzerland)</i> , 2022, 12, 1917-1927.	1.6	5
63	The influence of nanomaterials on pyocyanin production by <i>Pseudomonas aeruginosa</i> . <i>Applied Nanoscience (Switzerland)</i> , 2022, 12, 1929-1940.	1.6	5
64	Second/Additional Bistability in a CO Oxidation Reaction on Pt(111): An Extension and Compilation. <i>Journal of Physical Chemistry C</i> , 2012, 116, 22287-22292.	1.5	4
65	Increase the Microporosity and CO <sub>2</sub> Adsorption of a Commercial Activated Carbon. <i>Applied Mechanics and Materials</i> , 0, 749, 17-21.	0.2	4
66	Evolution of the silicoflagellate naviculopsid skeletal morphology in the Cenozoic. <i>Marine Micropaleontology</i> , 2020, 156, 101820.	0.5	4
67	Novel Diatoms (Bacillariophyta) from tropical and temperate marine littoral habitats with the description of <i>Catenulopsis</i> gen. nov., and two <i>Catenula</i> species. <i>Diatom Research</i> , 2021, 36, 265-280.	0.5	4
68	Geochemistry and Mineralogy of Ferromanganese Crusts from the Western Cocos-Nazca Spreading Centre, Pacific. <i>Minerals (Basel, Switzerland)</i> , 2022, 12, 538.	0.8	4
69	Characterization of laser-irradiated YNi <sub>2</sub> B <sub>2</sub> C surfaces by Auger electron spectroscopy. <i>Analytical and Bioanalytical Chemistry</i> , 2002, 374, 681-684.	1.9	2
70	Thermal stability of nanocrystalline iron. <i>Materials Science-Poland</i> , 2012, 30, 63-69.	0.4	2
71	Preparation and characterization of titania powders obtained via hydrolysis of titanium tetraisopropoxide. <i>Materials Science-Poland</i> , 2014, 32, 71-79.	0.4	2
72	Thermal Properties and Burial Alteration of Deep-Sea Sediments: New Indicators of Oxidation-Suboxic Diagenesis. <i>Minerals (Basel, Switzerland)</i> , 2020, 10, 901.	0.8	2

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73	Improving the Carbon Dioxide Uptake Efficiency of activated Carbons Using a Secondary Activation With Potassium Hydroxide. Polish Journal of Chemical Technology, 2018, 20, 87-94.	0.3	2
74	Silicoflagellate evolution through the Cenozoic. Marine Micropaleontology, 2022, 172, 102108.	0.5	2
75	Enhancement of XPS surface sensitivity in nanocrystalline material. Polish Journal of Chemical Technology, 2010, 12, 62-63.	0.3	1
76	Nucleation in a gas-solid state reaction. Crystal Research and Technology, 2012, 47, 1164-1171.	0.6	1
77	Supramolecular synthons and pattern recognition in adenine amides – synthesis, structures and thermal properties. Supramolecular Chemistry, 2015, 27, 571-583.	1.5	1
78	Iron(II) Sulfate(VI) from Titania Production as a Raw Material for Preparation of Hydrogen Sulfide Sorbents. Chemical Engineering and Technology, 2020, 43, 104-110.	0.9	1
79	Influence of weather conditions on the durability of acrylic-polyurethane car coatings in an industrial area. Polimery, 2021, 66, 503-517.	0.4	1
80	Photodegradation of Benzo-[a]-pyrene on the Surface of the Photocatalytic Paints and Analysis of the Degradation Products. Journal of Advanced Oxidation Technologies, 2013, 16, .	0.5	0
81	Chromatographic properties of hydrogenated microdiamond synthesized by high pressure and high temperature. Journal of Chromatography A, 2022, 1673, 463127.	1.8	0