Vera Meynen

List of Publications by Year
in descending order

118 papers	4,143 citations	117453 34 h-index	128067 60 g-index
119 all docs	119 docs citations	119 times ranked	5805 citing authors

#	Article	IF	Citations
1	Verified syntheses of mesoporous materials. Microporous and Mesoporous Materials, 2009, 125, 170-223.	2.2	575
2	Engineering a Highly Defective Stable UiO-66 with Tunable Lewis- BrÃ¸nsted Acidity: The Role of the Hemilabile Linker. Journal of the American Chemical Society, 2020, 142, 3174-3183.	6.6	156
3	CO2 dissociation in a packed bed DBD reactor: First steps towards a better understanding of plasma catalysis. Chemical Engineering Journal, 2017, 326, 477-488.	6.6	154
4	Effect of Argon or Helium on the CO₂ Conversion in a Dielectric Barrier Discharge. Plasma Processes and Polymers, 2015, 12, 755-763.	1.6	147
5	CO 2 , CH 4 and N 2 separation with a 3DFD-printed ZSM-5 monolith. Chemical Engineering Journal, 2017, 308, 719-726.	6.6	132
6	The influence of temperature on the structural behaviour of sodium tri- and hexa-titanates and their protonated forms. Journal of Solid State Chemistry, 2005, 178, 1614-1619.	1.4	126
7	Mechanistic study of hydrocarbon formation in photocatalytic CO2 reduction over Ti-SBA-15. Journal of Catalysis, 2011, 284, 1-8.	3.1	118
8	Synthesis of siliceous materials with micro- and mesoporosity. Microporous and Mesoporous Materials, 2007, 104, 26-38.	2.2	89
9	The benefit of design of support architectures for zeolite coated structured catalysts for methanol-to-olefin conversion. Catalysis Today, 2013, 216, 18-23.	2.2	85
10	Insights into phosphate adsorption behavior on structurally modified ZnAl layered double hydroxides. Applied Clay Science, 2018, 165, 234-246.	2.6	82
11	ZnO nanoparticles supported on mesoporous MCM-41 and SBA-15: a comparative physicochemical and photocatalytic study. Journal of Materials Science, 2010, 45, 5786-5794.	1.7	76
12	Organic solvent nanofiltration with Grignard functionalised ceramic nanofiltration membranes. Journal of Membrane Science, 2014, 454, 496-504.	4.1	75
13	Novel grafting method efficiently decreases irreversible fouling of ceramic nanofiltration membranes. Journal of Membrane Science, 2014, 470, 369-377.	4.1	73
14	Combined TiO2/SiO2 mesoporous photocatalysts with location and phase controllable TiO2 nanoparticles. Applied Catalysis B: Environmental, 2009, 88, 515-524.	10.8	70
15	Preparation and characterization of SnO2 nanoparticles of enhanced thermal stability: The effect of phosphoric acid treatment on SnO2Â·nH2O. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2005, 268, 147-154.	2.3	68
16	Fabrication of pure and moxifloxacin functionalized silver oxide nanoparticles for photocatalytic and antimicrobial activity. Journal of Photochemistry and Photobiology B: Biology, 2018, 186, 116-124.	1.7	64
17	Textural property tuning of ordered mesoporous carbon obtained by glycerol conversion using SBA-15 silica as template. Carbon, 2010, 48, 1609-1618.	5.4	61
18	Structural features and photocatalytic behaviour of titania deposited within the pores of SBA-15. Applied Catalysis A: General, 2006, 312, 153-164.	2.2	60

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19	New insights into the fouling mechanism of dissolved organic matter applying nanofiltration membranes with a variety of surface chemistries. Water Research, 2016, 93, 195-204.	5.3	58
20	Influence of the synthesis parameters of TiO2â€“SBA-15 materials on the adsorption and photodegradation of rhodamine-6G. Microporous and Mesoporous Materials, 2008, 110, 100-110.	2.2	56
21	Development of photocatalytic efficient Ti-based nanotubes and nanoribbons by conventional and microwave assisted synthesis strategies. Microporous and Mesoporous Materials, 2008, 114, 401-409.	2.2	55
22	Is There Any Microporosity in Ordered Mesoporous Silicas?. Langmuir, 2009, 25, 939-943.	1.6	55
23	The benefit of glass bead supports for efficient gas phase photocatalysis: Case study of a commercial and a synthesised photocatalyst. Chemical Engineering Journal, 2011, 174, 318-325.	6.6	55
24	A new strategy towards ultra stable mesoporous titania with nanosized anatase walls. Chemical Communications, 2003, , 1178-1179.	2.2	50
25	Structured catalysts for methanol-to-olefins conversion: a review. Chemical Papers, 2014, 68, .	1.0	50
26	Formation of a combined micro- and mesoporous material using zeolite Beta nanoparticles. Microporous and Mesoporous Materials, 2009, 120, 29-34.	2.2	49
27	Antifouling grafting of ceramic membranes validated in a variety of challenging wastewaters. Water Research, 2016, 104, 242-253.	5.3	46
28	Synthesis and catalytic applications of combined zeolitic/mesoporous materials. Beilstein Journal of Nanotechnology, 2011, 2, 785-801.	1.5	44
29	Adsorption of Hydrocarbons on Mesoporous SBA-15 and PHTS Materials. Langmuir, 2005, 21, 2447-2453.	1.6	41
30	Epoxidation of propylene with nitrous oxide on Rb2SO4-modified iron oxide on silica catalysts. Journal of Catalysis, 2007, 247, 86-100.	3.1	40
31	Altering Conversion and Product Selectivity of Dry Reforming of Methane in a Dielectric Barrier Discharge by Changing the Dielectric Packing Material. Catalysts, 2019, 9, 51.	1.6	40
32	In situ IR spectroscopic study to reveal the impact of the synthesis conditions of zeolite Î² nanoparticles on the acidic properties of the resulting zeolite. Chemical Engineering Journal, 2014, 237, 372-379.	6.6	39
33	Effect of aromatics on the adsorption of thiophenic sulfur compounds from model diesel fuel by activated carbon cloth. Fuel Processing Technology, 2014, 119, 278-285.	3.7	37
34	Fast fabrication of hollow silica spheres with thermally stable nanoporous shells. Microporous and Mesoporous Materials, 2007, 98, 41-46.	2.2	36
35	Validation of in situ Applicable Measuring Techniques for Analysis of the Water Adsorption by Stone. Procedia Chemistry, 2013, 8, 317-327.	0.7	36
36	Multi-step loading of titania on mesoporous silica: Influence of the morphology and the porosity on the catalytic degradation of aqueous pollutants and VOCs. Applied Catalysis B: Environmental, 2008, 84, 125-132.	10.8	34

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37	Vanadium Silicalite-1 Nanoparticles Deposition onto the Mesoporous Walls of SBA-15. Mechanistic Insights from a Combined EPR and Raman Study. Journal of the American Chemical Society, 2006, 128, 8955-8963.	6.6	33
38	Solvent-membrane-solute interactions in organic solvent nanofiltration (OSN) for Grignard functionalised ceramic membranes: Explanation via Spiegler-Kedem theory. Journal of Membrane Science, 2016, 513, 177-185.	4.1	32
39	TiOx-VOxMixed Oxides on SBA-15 Support Prepared by the Designed Dispersion of Acetylacetonate Complexes:Â Spectroscopic Study of the Reaction Mechanisms. Journal of Physical Chemistry B, 2004, 108, 3794-3800.	1.2	31
40	Hydrothermal synthesis of a concentrated and stable dispersion of TiO2 nanoparticles. Chemical Engineering Journal, 2013, 223, 135-144.	6.6	31
41	Preparation of CuO/SBA-15 catalyst by the modified ammonia driven deposition precipitation method with a high thermal stability and an efficient automotive CO and hydrocarbons conversion. Applied Catalysis B: Environmental, 2018, 223, 103-115.	10.8	30
42	A new method to graft titania using Grignard reagents. Chemical Communications, 2013, 49, 6998.	2.2	28
43	Synthesis and structural investigations on aluminium-free Ti-Beta/SBA-15 composite. Microporous and Mesoporous Materials, 2009, 117, 458-465.	2.2	26
44	Immersion Calorimetry as a Tool To Evaluate the Catalytic Performance of Titanosilicate Materials in the Epoxidation of Cyclohexene. Langmuir, 2011, 27, 3618-3625.	1.6	26
45	Diffusion effects in SBA-15 and its plugged analogous by a deposition of metalâ€"acetylacetonate complexes. Microporous and Mesoporous Materials, 2005, 85, 119-128.	2.2	25
46	Thermal decomposition of bioactive sodium titanate surfaces. Applied Surface Science, 2009, 255, 9539-9542.	3.1	24
47	Binding modes of phosphonic acid derivatives adsorbed on TiO2 surfaces: Assignments of experimental IR and NMR spectra based on DFT/PBC calculations. Surface Science, 2017, 655, 31-38.	0.8	24
48	Evaluation of the fouling resistance of methyl grafted ceramic membranes for inorganic foulants and co-effects of organic foulants. Separation and Purification Technology, 2018, 193, 29-37.	3.9	24
49	Deposition of vanadium silicalite-1 nanoparticles on SBA-15 materials. Structural and transport characteristics of SBA-VS-15. Microporous and Mesoporous Materials, 2007, 99, 14-22.	2.2	23
50	Mesoporous material formed by acidic hydrothermal assembly of silicalite-1 precursor nanoparticles in the absence of meso-templates. Microporous and Mesoporous Materials, 2008, 110, 77-85.	2.2	23
51	Direct spectroscopic detection of framework-incorporated vanadium in mesoporous silica materials. Physical Chemistry Chemical Physics, 2009, 11, 5823.	1.3	23
52	Mechanistic Insight into the Photocatalytic Working of Fluorinated Anatase {001} Nanosheets. Journal of Physical Chemistry C, 2017, 121, 26275-26286.	1.5	23
53	Self-Assembly and Diffusion of Block Copolymer Templates in SBA-15 Nanochannels. Journal of Physical Chemistry B, 2010, 114, 4223-4229.	1.2	21
54	Post-synthesis deposition of V-zeolitic nanoparticles in SBA-15. Chemical Communications, 2004, , 898.	2.2	20

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55	Rapid microwave-assisted synthesis of benzene bridged periodic mesoporous organosilicas. Journal of Materials Chemistry, 2009, 19, 3042.	6.7	20
56	The impact of framework organic functional groups on the hydrophobicity and overall stability of mesoporous silica materials. Materials Chemistry and Physics, 2012, 132, 1077-1088.	2.0	20
57	Influence of the MCM-41 morphology on the vanadia deposition by a molecular designed dispersion method. Microporous and Mesoporous Materials, 2006, 95, 31-38.	2.2	19
58	Development of alumina microspheres with controlled size and shape by vibrational droplet coagulation. Journal of the European Ceramic Society, 2017, 37, 189-198.	2.8	19
59	Production of hydrogen gas from water by the oxidation of metallic iron under mild hydrothermal conditions, assisted by in situ formed carbonate ions. Fuel, 2015, 160, 205-216.	3.4	18
60	The effect of the buffer solution on the adsorption and stability of horse heart myoglobin on commercial mesoporous titanium dioxide: a matter of the right choice. Physical Chemistry Chemical Physics, 2017, 19, 13503-13514.	1.3	18
61	Amperometric Flow-Injection Analysis of Phenols Induced by Reactive Oxygen Species Generated under Daylight Irradiation of Titania Impregnated with Horseradish Peroxidase. Analytical Chemistry, 2020, 92, 3643-3649.	3.2	18
62	Effect of Annealing Temperature on Structural Phase Transformations and Band Gap Reduction for Photocatalytic Activity of Mesopores TiO2 Nanocatalysts. Journal of Inorganic and Organometallic Polymers and Materials, 2021, 31, 1312-1322.	1.9	18
63	Class II Hybrid Organic-inorganic Membranes Creating New Versatility in Separations. Current Organic Chemistry, 2014, 18, 2334-2350.	0.9	18
64	The influence of preparation method on the physicochemical properties of titaniaâ€“silica aerogels: Part two. Journal of Porous Materials, 2008, 15, 541-549.	1.3	17
65	Revealing the influence of the solvent in combination with temperature, concentration and pH on the modification of TiO2 with 3PA. Materials Chemistry and Physics, 2016, 184, 324-334.	2.0	16
66	Controlling pore size and uniformity of mesoporous titania by early stage low temperature stabilization. Journal of Colloid and Interface Science, 2013, 391, 36-44.	5.0	15
67	New Insights in the Formation of Combined Zeolitic/Mesoporous Materials by using a Oneâ€Pot Templating Synthesis. European Journal of Inorganic Chemistry, 2011, 2011, 4234-4240.	1.0	14
68	Comparison between a Water-Based and a Solvent-Based Impregnation Method towards Dispersed CuO/SBA-15 Catalysts: Texture, Structure and Catalytic Performance in Automotive Exhaust Gas Abatement. Catalysts, 2016, 6, 164.	1.6	14
69	Aqueous or solvent based surface modification: The influence of the combination solvent â€“ organic functional group on the surface characteristics of titanium dioxide grafted with organophosphonic acids. Applied Surface Science, 2017, 416, 716-724.	3.1	14
70	Probing the impact of material properties of core-shell SiO2@TiO2 spheres on the plasma-catalytic CO2 dissociation using a packed bed DBD plasma reactor. Journal of CO2 Utilization, 2021, 46, 101468.	3.3	14
71	Aluminum Incorporation into MCM-48 toward the Creation of BrÃ¸nsted Acidity. Journal of Physical Chemistry B, 2004, 108, 13905-13912.	1.2	13
72	Growth of anatase nanoparticles inside the mesopores of SBA-15 for photocatalytic applications. Catalysis Communications, 2007, 8, 527-530.	1.6	13

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73	Synthesis, structural characterization and photocatalytic activity of Ti-MCM-41 mesoporous molecular sieves. Journal of Porous Materials, 2009, 16, 109-118.	1.3	13
74	A short solid-state synthesis leading to titanate compounds with porous structure and nanosheet morphology. Microporous and Mesoporous Materials, 2012, 147, 53-58.	2.2	13
75	Advances and Challenges in the Creation of Porous Metal Phosphonates. Materials, 2020, 13, 5366.	1.3	13
76	Accessibility and Dispersion of Vanadyl Sites of Vanadium Silicate-1 Nanoparticles Deposited in SBA-15. Journal of Physical Chemistry C, 2010, 114, 12966-12975.	1.5	12
77	Zeolite Î² nanoparticles based bimodal structures: Mechanism and tuning of the porosity and zeolitic properties. Microporous and Mesoporous Materials, 2014, 185, 204-212.	2.2	12
78	Demonstrating the Benefits and Pitfalls of Various Acidity Characterization Techniques by a Case Study on Bimodal Aluminosilicates. Langmuir, 2014, 30, 1880-1887.	1.6	12
79	A detailed investigation of the microwave assisted phenylphosphonic acid modification of P25 TiO2. Advanced Powder Technology, 2017, 28, 236-243.	2.0	12
80	Photocatalytic study of P25 and mesoporous titania in aqueous and gaseous environment. Catalysis Communications, 2008, 9, 1787-1792.	1.6	11
81	An adhesive conducting electrode material based on commercial mesoporous titanium dioxide as a support for Horseradish peroxidase for bioelectrochemical applications. Talanta, 2016, 146, 689-693.	2.9	11
82	Impact of inorganic waste fines on structure of mullite microspheres by reaction sintering. Journal of the European Ceramic Society, 2018, 38, 2612-2620.	2.8	11
83	Design and applications of a home-built in situ FT-Raman spectroscopic cell. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 2969-2975.	2.0	10
84	The influence of preparation method on the physicochemical properties of titaniaâ€“silica aerogels. Journal of Porous Materials, 2007, 14, 219-226.	1.3	10
85	Experimental and statistical modeling study of low coverage gas adsorption of light alkanes on meso-microporous silica. Chemical Engineering Journal, 2012, 179, 52-62.	6.6	10
86	Hydrothermal synthesis, structure and photocatalytic activity of PF-co-doped TiO2. Materials Science in Semiconductor Processing, 2015, 30, 442-450.	1.9	10
87	Applicability of fine industrial metallic iron-rich waste powders for hydrothermal production of hydrogen gas: The influence of non-ferrous contaminants. Journal of Cleaner Production, 2018, 195, 674-686.	4.6	10
88	Enzymatic sensor for phenols based on titanium dioxide generating surface confined ROS after treatment with H2O2. Sensors and Actuators B: Chemical, 2019, 283, 343-348.	4.0	10
89	Photocatalytic Inactivation of Plant Pathogenic Bacteria Using TiO2 Nanoparticles Prepared Hydrothermally. Nanomaterials, 2020, 10, 1730.	1.9	10
90	Siderite-calcite (FeCO3â€“CaCO3) series cement formation by accelerated carbonation of CO2(g)â€“H2Oâ€“Feâ€“Ca(OH)2 systems. Cement and Concrete Composites, 2021, 122, 104137.	4.6	10

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91	Systematic evaluation of thermal and mechanical stability of different commercial and synthetic photocatalysts in relation to their photocatalytic activity. Microporous and Mesoporous Materials, 2012, 156, 62-72.	2.2	9
92	Characterization and analysis of the adsorption immobilization mechanism of Î²-galactosidase on metal oxide powders. RSC Advances, 2013, 3, 24054.	1.7	9
93	Sensitivity of the selective oxidation of methane over Fe/ZSM-5 zeolites in a micro fixed-bed reactor for the catalyst preparation method. Applied Catalysis A: General, 2018, 566, 96-103.	2.2	9
94	The Potential Use of Core-Shell Structured Spheres in a Packed-Bed DBD Plasma Reactor for CO2 Conversion. Catalysts, 2020, 10, 530.	1.6	9
95	Utilising the principles of FeCO3 scaling for cementation in H2O-CO2(g)-Fe system. Corrosion Science, 2020, 169, 108613.	3.0	9
96	<scp>CHEMampere</scp>: Technologies for sustainable chemical production with renewable electricity and <scp>CO₂</scp>, <scp>N₂</scp>, <scp>O₂</scp>, and <scp>H₂O</scp>. Canadian Journal of Chemical Engineering, 2022, 100, 2736-2761.	0.9	9
97	The merging of silica-surfactant microspheres under hydrothermal conditions. Microporous and Mesoporous Materials, 2008, 116, 141-146.	2.2	8
98	Experimental and computational insights into the aminopropylphosphonic acid modification of mesoporous TiO2 powder: The role of the amine functionality on the surface interaction and coordination. Applied Surface Science, 2021, 566, 150625.	3.1	8
99	Novel Lanthanide(III) Porphyrin-Based Metalâ€"Organic Frameworks: Structure, Gas Adsorption, and Magnetic Properties. ACS Omega, 2021, 6, 24637-24649.	1.6	7
100	Optimisation of the surface properties of SBA-15 mesoporous silica for in-situ nanoparticle synthesis. Microporous and Mesoporous Materials, 2009, 120, 2-6.	2.2	6
101	Smart heating profiles for the synthesis of benzene bridged periodic mesoporous organosilicas. Chemical Engineering Journal, 2011, 175, 585-591.	6.6	6
102	Microvolume TOC Analysis as Useful Tool in the Evaluation of Lab Scale Photocatalytic Processes. Catalysts, 2013, 3, 74-87.	1.6	6
103	CO₂reduction reactions: general discussion. Faraday Discussions, 2015, 183, 261-290.	1.6	6
104	The Influence of Acids on Tuning the Pore Size of Mesoporous TiO₂ Templated by Nonâ€Ionic Block Copolymers. European Journal of Inorganic Chemistry, 2018, 2018, 62-65.	1.0	6
105	Is their potential for post-synthetic brominating reactions on benzene bridged PMOs?. Microporous and Mesoporous Materials, 2012, 164, 49-55.	2.2	5
106	Hydrothermal conversion of carbon dioxide into formate with the aid of zerovalent iron: the potential of a two-step approach. Faraday Discussions, 2015, 183, 177-195.	1.6	4
107	Attaching Redox Proteins onto Electrode Surfaces by using bisâ€Silane. ChemElectroChem, 2016, 3, 1035-1038.	1.7	4
108	Selective Oxidation of Methane with Hydrogen Peroxide Towards Formic Acid in a Micro Fixedâ€BedÂReactor. Chemie-Ingenieur-Technik, 2017, 89, 1759-1765.	0.4	4

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109	Hydration and Confinement Effects on Horse Heart Myoglobin Adsorption in Mesoporous TiO2. Journal of Physical Chemistry C, 2018, 122, 23393-23404.	1.5	4
110	Synthesis â€“ properties correlation and the unexpected role of the titania support on the Grignard surface modification. Applied Surface Science, 2020, 527, 146851.	3.1	4
111	Formation of a Ti-siliceous trimodal material with macroholes, mesopores and zeolitic features via a one-pot templating synthesis. Journal of Porous Materials, 2012, 19, 153-160.	1.3	3
112	From template-assisted mesoporous titania powders to thin films: Differences and similarities. Thin Solid Films, 2015, 593, 17-25.	0.8	3
113	The Use of Different Templates for the Synthesis of Reproducible Mesoporous Titania Thin Films and Small Pore Ultrafiltration Membranes. Advanced Engineering Materials, 2019, 21, 1900603.	1.6	3
114	The interaction of water with organophosphonic acid surface modified titania: An in-depth in-situ DRIFT study. Surfaces and Interfaces, 2020, 21, 100710.	1.5	2
115	The use of small volume TOC analysis as complementary, indispensable tool in the evaluation of photocatalysts at lab-scale. Studies in Surface Science and Catalysis, 2010, 175, 321-324.	1.5	1
116	The Influence of Acids on Tuning the Pore Size of Mesoporous TiO₂ Templated by Nonâ€Ionic Block Copolymers. European Journal of Inorganic Chemistry, 2018, 2018, 4932-4932.	1.0	1
117	Environmental catalysis â€” Topical issue. Chemical Papers, 2014, 68, .	1.0	0
118	Hybrid porous titania phosphonate networks with different bridging functionalities: Synthesis, characterization, and evaluation as efficient solvent separation materials. Microporous and Mesoporous Materials, 2022, , 112080.	2.2	0