Vera Meynen

List of Publications by Year
in descending order

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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	<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
2	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
3	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
4	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
5	Novel Lanthanide(III) Porphyrin-Based Metalâ€“Organic Frameworks: Structure, Gas Adsorption, and Magnetic Properties. ACS Omega, 2021, 6, 24637-24649.	1.6	7
6	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
7	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
8	Photocatalytic Inactivation of Plant Pathogenic Bacteria Using TiO2 Nanoparticles Prepared Hydrothermally. Nanomaterials, 2020, 10, 1730.	1.9	10
9	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
10	Advances and Challenges in the Creation of Porous Metal Phosphonates. Materials, 2020, 13, 5366.	1.3	13
11	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
12	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
13	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
14	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
15	Utilising the principles of FeCO3 scaling for cementation in H2O-CO2(g)-Fe system. Corrosion Science, 2020, 169, 108613.	3.0	9
16	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
17	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
18	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

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19	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
20	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
21	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
22	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
23	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
24	Hydration and Confinement Effects on Horse Heart Myoglobin Adsorption in Mesoporous TiO2. Journal of Physical Chemistry C, 2018, 122, 23393-23404.	1.5	4
25	Insights into phosphate adsorption behavior on structurally modified ZnAl layered double hydroxides. Applied Clay Science, 2018, 165, 234-246.	2.6	82
26	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
27	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
28	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
29	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
30	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
31	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
32	Mechanistic Insight into the Photocatalytic Working of Fluorinated Anatase {001} Nanosheets. Journal of Physical Chemistry C, 2017, 121, 26275-26286.	1.5	23
33	A detailed investigation of the microwave assisted phenylphosphonic acid modification of P25 TiO2. Advanced Powder Technology, 2017, 28, 236-243.	2.0	12
34	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
35	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
36	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

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37	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
38	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
39	Attaching Redox Proteins onto Electrode Surfaces by using bisâ€Silane. ChemElectroChem, 2016, 3, 1035-1038.	1.7	4
40	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
41	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
42	Antifouling grafting of ceramic membranes validated in a variety of challenging wastewaters. Water Research, 2016, 104, 242-253.	5.3	46
43	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
44	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
45	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
46	From template-assisted mesoporous titania powders to thin films: Differences and similarities. Thin Solid Films, 2015, 593, 17-25.	0.8	3
47	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
48	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
49	CO₂reduction reactions: general discussion. Faraday Discussions, 2015, 183, 261-290.	1.6	6
50	Hydrothermal synthesis, structure and photocatalytic activity of PF-co-doped TiO2. Materials Science in Semiconductor Processing, 2015, 30, 442-450.	1.9	10
51	Structured catalysts for methanol-to-olefins conversion: a review. Chemical Papers, 2014, 68, .	1.0	50
52	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
53	Organic solvent nanofiltration with Grignard functionalised ceramic nanofiltration membranes. Journal of Membrane Science, 2014, 454, 496-504.	4.1	75
54	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

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55	Novel grafting method efficiently decreases irreversible fouling of ceramic nanofiltration membranes. Journal of Membrane Science, 2014, 470, 369-377.	4.1	73
56	Environmental catalysis â€" Topical issue. Chemical Papers, 2014, 68, .	1.0	0
57	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
58	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
59	Class II Hybrid Organic-inorganic Membranes Creating New Versatility in Separations. Current Organic Chemistry, 2014, 18, 2334-2350.	0.9	18
60	Validation of in situ Applicable Measuring Techniques for Analysis of the Water Adsorption by Stone. Procedia Chemistry, 2013, 8, 317-327.	0.7	36
61	A new method to graft titania using Grignard reagents. Chemical Communications, 2013, 49, 6998.	2.2	28
62	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
63	Characterization and analysis of the adsorption immobilization mechanism of Î²-galactosidase on metal oxide powders. RSC Advances, 2013, 3, 24054.	1.7	9
64	Hydrothermal synthesis of a concentrated and stable dispersion of TiO2 nanoparticles. Chemical Engineering Journal, 2013, 223, 135-144.	6.6	31
65	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
66	Microvolume TOC Analysis as Useful Tool in the Evaluation of Lab Scale Photocatalytic Processes. Catalysts, 2013, 3, 74-87.	1.6	6
67	Is their potential for post-synthetic brominating reactions on benzene bridged PMOs?. Microporous and Mesoporous Materials, 2012, 164, 49-55.	2.2	5
68	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
69	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
70	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
71	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
72	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

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73	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
74	Synthesis and catalytic applications of combined zeolitic/mesoporous materials. Beilstein Journal of Nanotechnology, 2011, 2, 785-801.	1.5	44
75	Mechanistic study of hydrocarbon formation in photocatalytic CO2 reduction over Ti-SBA-15. Journal of Catalysis, 2011, 284, 1-8.	3.1	118
76	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
77	Smart heating profiles for the synthesis of benzene bridged periodic mesoporous organosilicas. Chemical Engineering Journal, 2011, 175, 585-591.	6.6	6
78	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
79	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
80	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
81	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
82	Self-Assembly and Diffusion of Block Copolymer Templates in SBA-15 Nanochannels. Journal of Physical Chemistry B, 2010, 114, 4223-4229.	1.2	21
83	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
84	Thermal decomposition of bioactive sodium titanate surfaces. Applied Surface Science, 2009, 255, 9539-9542.	3.1	24
85	Synthesis, structural characterization and photocatalytic activity of Ti-MCM-41 mesoporous molecular sieves. Journal of Porous Materials, 2009, 16, 109-118.	1.3	13
86	Synthesis and structural investigations on aluminium-free Ti-Beta/SBA-15 composite. Microporous and Mesoporous Materials, 2009, 117, 458-465.	2.2	26
87	Verified syntheses of mesoporous materials. Microporous and Mesoporous Materials, 2009, 125, 170-223.	2.2	575
88	Formation of a combined micro- and mesoporous material using zeolite Beta nanoparticles. Microporous and Mesoporous Materials, 2009, 120, 29-34.	2.2	49
89	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
90	Combined TiO2/SiO2 mesoporous photocatalysts with location and phase controllable TiO2 nanoparticles. Applied Catalysis B: Environmental, 2009, 88, 515-524.	10.8	70

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91	Is There Any Microporosity in Ordered Mesoporous Silicas?. Langmuir, 2009, 25, 939-943.	1.6	55
92	Rapid microwave-assisted synthesis of benzene bridged periodic mesoporous organosilicas. Journal of Materials Chemistry, 2009, 19, 3042.	6.7	20
93	Direct spectroscopic detection of framework-incorporated vanadium in mesoporous silica materials. Physical Chemistry Chemical Physics, 2009, 11, 5823.	1.3	23
94	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
95	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
96	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
97	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
98	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
99	The merging of silica-surfactant microspheres under hydrothermal conditions. Microporous and Mesoporous Materials, 2008, 116, 141-146.	2.2	8
100	Photocatalytic study of P25 and mesoporous titania in aqueous and gaseous environment. Catalysis Communications, 2008, 9, 1787-1792.	1.6	11
101	Growth of anatase nanoparticles inside the mesopores of SBA-15 for photocatalytic applications. Catalysis Communications, 2007, 8, 527-530.	1.6	13
102	Fast fabrication of hollow silica spheres with thermally stable nanoporous shells. Microporous and Mesoporous Materials, 2007, 98, 41-46.	2.2	36
103	Synthesis of siliceous materials with micro- and mesoporosity. Microporous and Mesoporous Materials, 2007, 104, 26-38.	2.2	89
104	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
105	Epoxidation of propylene with nitrous oxide on Rb2SO4-modified iron oxide on silica catalysts. Journal of Catalysis, 2007, 247, 86-100.	3.1	40
106	The influence of preparation method on the physicochemical properties of titaniaâ€“silica aerogels. Journal of Porous Materials, 2007, 14, 219-226.	1.3	10
107	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
108	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

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109	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
110	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
111	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
112	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
113	Adsorption of Hydrocarbons on Mesoporous SBA-15 and PHTS Materials. Langmuir, 2005, 21, 2447-2453.	1.6	41
114	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
115	Post-synthesis deposition of V-zeolitic nanoparticles in SBA-15. Chemical Communications, 2004, , 898.	2.2	20
116	Aluminum Incorporation into MCM-48 toward the Creation of BrÃ¸nsted Acidity. Journal of Physical Chemistry B, 2004, 108, 13905-13912.	1.2	13
117	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
118	A new strategy towards ultra stable mesoporous titania with nanosized anatase walls. Chemical Communications, 2003, , 1178-1179.	2.2	50