BenoÃ®t Heinrichs

List of Publications by Year
in descending order

61 papers	1,900 citations	201674 27 h-index	265206 42 g-index
61 all docs	61 docs citations	61 times ranked	2109 citing authors

#	Article	IF	Citations
1	Improving effect of metal and oxide nanoparticles encapsulated in porous silica on fermentative biohydrogen production by Clostridium butyricum. Bioresource Technology, 2013, 133, 109-117.	9.6	156
2	Photocatalytic degradation of phenol and benzoic acid using zinc oxide powders prepared by the solâ€“gel process. AEJ - Alexandria Engineering Journal, 2013, 52, 517-523.	6.4	134
3	Scalable Photocatalytic Oxidation of Methionine under Continuous-Flow Conditions. Organic Process Research and Development, 2017, 21, 1435-1438.	2.7	79
4	Pd/SiO2-Cogelled Aerogel Catalysts and Impregnated Aerogel and Xerogel Catalysts: Synthesis and Characterization. Journal of Catalysis, 1997, 170, 366-376.	6.2	77
5	Pdâ€“Ag/SiO2 and Pdâ€“Cu/SiO2 cogelled xerogel catalysts for selective hydrodechlorination of 1,2-dichloroethane into ethylene. Catalysis Today, 2005, 100, 283-289.	4.4	64
6	Ag- and SiO2-doped porous TiO2 with enhanced thermal stability. Microporous and Mesoporous Materials, 2009, 122, 247-254.	4.4	62
7	Hydrodechlorination of 1,2-dichloroethane on Pdâ€“Ag catalysts supported on tailored texture carbon xerogels. Catalysis Today, 2005, 102-103, 234-241.	4.4	61
8	Carbon xerogels as catalyst supports: Study of mass transfer. AICHE Journal, 2006, 52, 2663-2676.	3.6	58
9	Towards a large scale aqueous sol-gel synthesis of doped TiO2: Study of various metallic dopings for the photocatalytic degradation of p-nitrophenol. Journal of Photochemistry and Photobiology A: Chemistry, 2016, 329, 189-202.	3.9	54
10	Study of the photocatalytic activity of Fe3+, Cr3+, La3+ and Eu3+ single-doped and co-doped TiO2 catalysts produced by aqueous sol-gel processing. Journal of Alloys and Compounds, 2017, 691, 726-738.	5.5	52
11	Significantly enhancement of sunlight photocatalytic performance of ZnO by doping with transition metal oxides. Scientific Reports, 2021, 11, 2804.	3.3	52
12	How to modify the photocatalytic activity of TiO2 thin films through their roughness by using additives. A relation between kinetics, morphology and synthesis. Chemical Engineering Journal, 2014, 243, 537-548.	12.7	51
13	Highly Efficient Low-Temperature N-Doped TiO2 Catalysts for Visible Light Photocatalytic Applications. Materials, 2018, 11, 584.	2.9	48
14	Ag/SiO2, Cu/SiO2 and Pd/SiO2 cogelled xerogel catalysts for benzene combustion: Relationships between operating synthesis variables and catalytic activity. Catalysis Communications, 2007, 8, 1244-1248.	3.3	46
15	Role of defects on the enhancement of the photocatalytic response of ZnO nanostructures. Applied Surface Science, 2018, 448, 646-654.	6.1	46
16	Optimized deposition of TiO2 thin films produced by a non-aqueous solâ€“gel method and quantification of their photocatalytic activity. Chemical Engineering Journal, 2012, 195-196, 347-358.	12.7	42
17	Unpredictable photocatalytic ability of H2-reduced rutile-TiO2 xerogel in the degradation of dye-pollutants under UV and visible light irradiation. Applied Catalysis B: Environmental, 2010, 94, 263-271.	20.2	40
18	In Situ SAXS Analysis of Silica Gel Formation with an Additive. Journal of Physical Chemistry B, 2004, 108, 8983-8991.	2.6	39

#	Article	IF	Citations
19	Highly dispersed iron xerogel catalysts for p-nitrophenol degradation by photo-Fenton effects. Microporous and Mesoporous Materials, 2014, 197, 164-173.	4.4	36
20	Kinetic study of p-nitrophenol photodegradation with modified TiO2 xerogels. Chemical Engineering Journal, 2012, 191, 441-450.	12.7	35
21	Efficient P- and Ag-doped titania for the photocatalytic degradation of waste water organic pollutants. Journal of Alloys and Compounds, 2016, 682, 144-153.	5.5	35
22	Development by the solâ€“gel process of highly dispersed Niâ€“Cu/SiO2 xerogel catalysts for selective 1,2-dichloroethane hydrodechlorination into ethylene. Microporous and Mesoporous Materials, 2015, 209, 197-207.	4.4	34
23	Study of photocatalytic decomposition of hydrogen peroxide over ramsdellite-MnO2 by O2-pressure monitoring. Catalysis Communications, 2011, 15, 132-136.	3.3	31
24	Improving Continuous Flow Singlet Oxygen Photooxygenation Reactions with Functionalized Mesoporous Silica Nanoparticles. ChemPhotoChem, 2018, 2, 890-897.	3.0	31
25	Interactions between Zn2+ or ZnO with TiO2 to produce an efficient photocatalytic, superhydrophilic and aesthetic glass. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 350, 32-43.	3.9	30
26	Porphyrin-based hybrid silica-titania as a visible-light photocatalyst. Journal of Photochemistry and Photobiology A: Chemistry, 2019, 373, 66-76.	3.9	30
27	An ambient temperature aqueous solâ€“gel processing of efficient nanocrystalline doped TiO2-based photocatalysts for the degradation of organic pollutants. Journal of Sol-Gel Science and Technology, 2014, 71, 557-570.	2.4	29
28	Mass transfer in low-density xerogel catalysts. AICHE Journal, 2001, 47, 1866-1873.	3.6	27
29	Tailor-made morphologies for Pd/SiO2 catalysts through solâ€“gel process with various silylated ligands. Microporous and Mesoporous Materials, 2008, 115, 609-617.	4.4	27
30	Kinetic study of 4-nitrophenol photocatalytic degradation over a Zn2+ doped TiO2 catalyst prepared through an environmentally friendly aqueous solâ€“gel process. Chemical Engineering Journal, 2014, 245, 180-190.	12.7	26
31	How to correctly determine the kinetics of a photocatalytic degradation reaction?. Chemical Engineering Journal, 2014, 249, 1-5.	12.7	22
32	On the structure-sensitivity of 2-butanol dehydrogenation over Cu/SiO2 cogelled xerogel catalysts. Catalysis Communications, 2007, 8, 2032-2036.	3.3	21
33	Doped solâ€“gel films vs. powders TiO 2 : On the positive effect induced by the presence of a substrate. Journal of Environmental Chemical Engineering, 2016, 4, 449-459.	6.7	20
34	Heterogeneous singlet oxygen generation: in-operando visible light EPR spectroscopy. Environmental Science and Pollution Research, 2021, 28, 25124-25129.	5.3	20
35	Synthesis of SiO2 xerogels and Pd/SiO2 cogelled xerogel catalysts from silylated acetylacetonate ligand. Journal of Non-Crystalline Solids, 2004, 343, 109-120.	3.1	19
36	Aqueous solâ€“gel synthesis and film deposition methods for the large-scale manufacture of coated steel with self-cleaning properties. Journal of Sol-Gel Science and Technology, 2017, 81, 27-35.	2.4	19

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37	Degradation of p-nitrophenol and bacteria with TiO2 xerogels sensitized in situ with tetra(4-carboxyphenyl)porphyrins. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 272, 90-99.	3.9	17
38	Protoporphyrin <scp>IX</scp>â€Functionalized AgSiO₂ Coreâ€“Shell Nanoparticles: Plasmonic Enhancement of Fluorescence and Singlet Oxygen Production. Photochemistry and Photobiology, 2016, 92, 247-256.	2.5	17
39	Acid acting as redispersing agent to form stable colloids from photoactive crystalline aqueous solâ€“gel TiO2 powder. Journal of Sol-Gel Science and Technology, 2018, 87, 568-583.	2.4	17
40	Photocatalytic decomposition of hydrogen peroxide over nanoparticles of TiO 2 and Ni(II)-porphyrin-doped TiO 2 : A relationship between activity and porphyrin anchoring mode. Applied Catalysis B: Environmental, 2016, 182, 405-413.	20.2	16
41	Iron(III) species dispersed in porous silica through solâ€“gel chemistry. Journal of Non-Crystalline Solids, 2008, 354, 665-672.	3.1	15
42	Effects of additives and solvents on the gel formation rate and on the texture of P- and Si-doped TiO2 materials. Microporous and Mesoporous Materials, 2010, 134, 157-164.	4.4	15
43	Doping TiO2 films with carbon nanotubes to simultaneously optimise antistatic, photocatalytic and superhydrophilic properties. Journal of Sol-Gel Science and Technology, 2016, 79, 413-425.	2.4	15
44	A TEM study on the localization of metal particles in cogelled xerogel catalysts. Journal of Catalysis, 2006, 241, 229-231.	6.2	13
45	Transitioning from conventional batch to microfluidic processes for the efficient singlet oxygen photooxygenation of methionine. Journal of Photochemistry and Photobiology A: Chemistry, 2018, 356, 193-200.	3.9	13
46	Au nanobipyramids@mSiO₂ coreâ€“shell nanoparticles for plasmon-enhanced singlet oxygen photooxygenations in segmented flow microreactors. Nanoscale Advances, 2020, 2, 5280-5287.	4.6	12
47	Solâ€“gel preparation of pure and doped TiO2 films for the photocatalytic oxidation of ethanol in air. Journal of Sol-Gel Science and Technology, 2012, 63, 526-536.	2.4	11
48	Multigram scale synthesis and characterization of low-density silica xerogels. Journal of Non-Crystalline Solids, 2006, 352, 2763-2771.	3.1	10
49	Experimental procedure and statistical data treatment for the kinetic study of selective hydrodechlorination of 1,2-dichloroethane into ethylene over a Pd-Ag solâ€“gel catalyst. Chemical Engineering Journal, 2011, 173, 801-812.	12.7	10
50	Optimizing support properties of heterogeneous catalysts for the coupling of carbon dioxide with epoxides. Chemical Engineering Journal, 2019, 371, 719-729.	12.7	10
51	Methods for the preparation of bimetallic xerogel catalysts designed for chlorinated wastes processing. Journal of Non-Crystalline Solids, 2006, 352, 2751-2762.	3.1	9
52	Effect of metal ions and metal nanoparticles encapsulated in porous silica on biphenyl biodegradation by Rhodococcus erythropolis T902.1. Journal of Sol-Gel Science and Technology, 2015, 75, 235-245.	2.4	7
53	Overview of Superhydrophilic, Photocatalytic and Anticorrosive Properties of TiO2 Thin Films Doped with Multi-walled Carbon Nanotubes and Deposited on 316L Stainless Steel. Materials Today: Proceedings, 2016, 3, 434-438.	1.8	7
54	Preparation of PDLLA based nanocomposites with modified silica by in situ polymerization: Study of molecular, morphological, and mechanical properties. Materials Today Communications, 2020, 25, 101610.	1.9	7

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55	Synthesis of medical grade PLLA, PDLLA, and PLGA by a reactive extrusion polymerization. Materials Today Communications, 2020, 24, 101208.	1.9	5
56	Large scale production of photocatalytic TiO₂ coating for volatile organic compound (VOC) air remediation. AIMS Materials Science, 2018, 5, 945-956.	1.4	5
57	P-Doped Titania Xerogels as Efficient UV-Visible Photocatalysts. Journal of Materials Science and Chemical Engineering, 2014, 02, 17-32.	0.4	5
58	Preparation of polyâ€•d , l â€‹actide based nanocomposites with polymerâ€grafted silica by melt blending: Study of molecular, morphological, and mechanical properties. Polymer Composites, 2021, 42, 955-972.	4.6	4
59	Immobilizing metal nanoparticles in porous silica through sol-gel process. Studies in Surface Science and Catalysis, 2006, 162, 521-528.	1.5	3
60	Waterâ€Based Paintable LiCoO 2 Microelectrodes: A Highâ€Rate Liâ€Ion Battery Free of Conductive and Binder Additives. Advanced Materials Technologies, 2019, 4, 1900499.	5.8	3
61	Improvement in the methylene blue adsorption capacity and photocatalytic activity of H2-reduced rutile-TiO2 caused by Ni(II)porphyrin preadsorption. Applied Catalysis B: Environmental, 2011, , .	20.2	1