ValÃ©rie Keller

List of Publications by Year
in descending order

122 papers	5,012 citations	87888 38 h-index	106344 65 g-index
127 all docs	127 docs citations	127 times ranked	6816 citing authors

#	Article	IF	Citations
1	Solar light photocatalytic hydrogen production from water over Pt and Au/TiO2(anatase/rutile) photocatalysts: Influence of noble metal and porogen promotion. Journal of Catalysis, 2010, 269, 179-190.	6.2	289
2	Photocatalytic oxidation of butyl acetate in vapor phase on TiO2, Pt/TiO2 and WO3/TiO2 catalysts. Journal of Catalysis, 2003, 215, 129-138.	6.2	233
3	Ethylene Removal and Fresh Product Storage: A Challenge at the Frontiers of Chemistry. Toward an Approach by Photocatalytic Oxidation. Chemical Reviews, 2013, 113, 5029-5070.	47.7	208
4	Catalysts, mechanisms and industrial processes for the dimethylcarbonate synthesis. Journal of Molecular Catalysis A, 2010, 317, 1-18.	4.8	204
5	TiO ₂ Photocatalysis Damages Lipids and Proteins in Escherichia coli. Applied and Environmental Microbiology, 2014, 80, 2573-2581.	3.1	195
6	Oxidative dehydrogenation of ethylbenzene to styrene over ultra-dispersed diamond and onion-like carbon. Carbon, 2007, 45, 2145-2151.	10.3	168
7	Au/TiO₂â€“gC₃N₄ Nanocomposites for Enhanced Photocatalytic H₂ Production from Water under Visible Light Irradiation with Very Low Quantities of Sacrificial Agents. Advanced Energy Materials, 2018, 8, 1702142.	19.5	163
8	Activation and isomerization of hydrocarbons over WO3/ZrO2 catalystsI. Preparation, characterization, and X-ray photoelectron spectroscopy studies. Journal of Catalysis, 2004, 225, 45-55.	6.2	124
9	Synthesis and characterisation of medium surface area silicon carbide nanotubes. Carbon, 2003, 41, 2131-2139.	10.3	123
10	Single-Step Synthesis of SnS₂ Nanosheet-Decorated TiO₂ Anatase Nanofibers as Efficient Photocatalysts for the Degradation of Gas-Phase Diethylsulfide. ACS Applied Materials & Interfaces, 2015, 7, 19324-19334.	8.0	105
11	Rare earth co-doped ZnO photocatalysts: Solution combustion synthesis and environmental applications. Separation and Purification Technology, 2020, 237, 116328.	7.9	98
12	Impact of three different TiO2 morphologies on hydrogen evolution by methanol assisted water splitting: Nanoparticles, nanotubes and aerogels. International Journal of Hydrogen Energy, 2011, 36, 14360-14373.	7.1	84
13	Influence of the gas atmosphere during the synthesis of g-C₃N₄ for enhanced photocatalytic H₂ production from water on Au/g-C₃N₄ composites. Journal of Materials Chemistry A, 2019, 7, 14849-14863.	10.3	81
14	Layerâ€byâ€Layer Deposited Titanateâ€Based Nanotubes for Solar Photocatalytic Removal of Chemical Warfare Agents from Textiles. Angewandte Chemie - International Edition, 2009, 48, 161-164.	13.8	80
15	Photocatalytic behavior of a new composite ternary system: WO3/SiC-TiO2. Effect of the coupling of semiconductors and oxides in photocatalytic oxidation of methylethylketone in the gas phase. Catalysis Communications, 2003, 4, 377-383.	3.3	79
16	Mesoporous TiO2-based photocatalysts for UV and visible light gas-phase toluene degradation. Thin Solid Films, 2006, 495, 272-279.	1.8	79
17	Chemistry of NO_x on TiO₂ Surfaces Studied by Ambient Pressure XPS: Products, Effect of UV Irradiation, Water, and Coadsorbed K⁺. Journal of Physical Chemistry Letters, 2013, 4, 536-541.	4.6	79
18	Bioâ€Inspired Nanostructured Sensor for the Detection of Ultralow Concentrations of Explosives. Angewandte Chemie - International Edition, 2012, 51, 5334-5338.	13.8	75

#	ARTICLE	IF	CITATIONS
19	One step synthesis of niobium doped titania nanotube arrays to form (N,Nb) co-doped TiO₂with high visible light photoelectrochemical activity. Journal of Materials Chemistry A, 2013, 1, 2151-2160.	10.3	75
20	Numeration methods for targeting photoactive materials in the UV-A photocatalytic removal of microorganisms. Chemical Society Reviews, 2008, 37, 744.	38.1	72
21	Comparison of Hombikat UV100 and P25 TiO2 performance in gas-phase photocatalytic oxidation reactions. Journal of Photochemistry and Photobiology A: Chemistry, 2012, 250, 58-65.	3.9	69
22	Catalytic Activity of Bulk Tungsten Carbides for Alkane Reforming. Journal of Catalysis, 1995, 153, 9-16.	6.2	67
23	A parametric study of the UV-A photocatalytic oxidation of H2S over TiO2. Applied Catalysis B: Environmental, 2012, 115-116, 209-218.	20.2	59
24	Î²-SiC foams as a promising structured photocatalytic support for water and air detoxification. Catalysis Today, 2013, 209, 13-20.	4.4	59
25	Biological agent inactivation in a flowing air stream by photocatalysis. Chemical Communications, 2005, , 2918.	4.1	58
26	Gas phase photocatalytic removal of toluene effluents on sulfated titania. Journal of Catalysis, 2005, 235, 318-326.	6.2	57
27	Solar light-activated photocatalytic degradation of gas phase diethylsulfide on WO3-modified TiO2 nanotubes. Applied Catalysis B: Environmental, 2013, 138-139, 128-140.	20.2	54
28	Au/TiO2(P25)-gC3N4 composites with low gC3N4 content enhance TiO2 sensitization for remarkable H2 production from water under visible-light irradiation. Nano Energy, 2020, 75, 104888.	16.0	53
29	Structural and electronic effects in bimetallic PdPt nanoparticles on TiO2 for improved photocatalytic oxidation of CO in the presence of humidity. Applied Catalysis B: Environmental, 2015, 166-167, 381-392.	20.2	50
30	Activation of solid grinding-derived Au/TiO2 photocatalysts for solar H2 production from water-methanol mixtures with low alcohol content. Journal of Catalysis, 2017, 352, 22-34.	6.2	49
31	Preliminary study of the use of Î²-SiC foam as a photocatalytic support for water treatment. Catalysis Today, 2011, 161, 3-7.	4.4	48
32	Macroscopic carbon nanofibers for use as photocatalyst support. Catalysis Today, 2005, 101, 323-329.	4.4	47
33	Room temperature visible light oxidation of CO by high surface area rutile TiO2-supported metal photocatalyst. Applied Catalysis B: Environmental, 2007, 69, 133-137.	20.2	47
34	3D solid carbon foam-based photocatalytic materials for vapor phase flow-through structured photoreactors. Applied Catalysis A: General, 2010, 382, 122-130.	4.3	42
35	Self-decontaminating layer-by-layer functionalized textiles based on WO3-modified titanate nanotubes. Application to the solar photocatalytic removal of chemical warfare agents. Applied Catalysis A: General, 2011, 391, 455-467.	4.3	42
36	UV-A photocatalytic treatment of Legionella pneumophila bacteria contaminated airflows through three-dimensional solid foam structured photocatalytic reactors. Journal of Hazardous Materials, 2010, 175, 372-381.	12.4	41

#	Article	IF	Citations
37	Sn-doped and porogen-modified TiO2 photocatalyst for solar light elimination of sulfure diethyle as a model for chemical warfare agent. Applied Catalysis B: Environmental, 2019, 245, 279-289.	20.2	41
38	Temperature dependent photoluminescence of anatase and rutile TiO2 single crystals: Polaron and self-trapped exciton formation. Journal of Applied Physics, 2018, 124, .	2.5	39
39	TiO2/Î²-SiC foam-structured photoreactor for continuous wastewater treatment. Environmental Science and Pollution Research, 2012, 19, 3727-3734.	5.3	37
40	Î²-SiC alveolar foams as a structured photocatalytic support for the gas phase photocatalytic degradation of methylethylketone. Applied Catalysis B: Environmental, 2015, 170-171, 301-311.	20.2	36
41	Catalytic Activity of Bulk Tungsten Carbides for Alkane Reforming. III. Reaction Mechanisms and the Kinetic Model. Journal of Catalysis, 1997, 166, 136-147.	6.2	35
42	UV-A photocatalytic treatment of high flow rate air contaminated with Legionella pneumophila. Catalysis Today, 2007, 129, 215-222.	4.4	35
43	Niobium Alloying of Selfâ€Organized TiO₂ Nanotubes as an Anode for Lithiumâ€Ion Microbatteries. Advanced Materials Technologies, 2018, 3, 1700274.	5.8	33
44	Catalytic Activity of Reduced MoO3/Î±-Al2O3 for Hexanes Reforming. Journal of Catalysis, 1999, 185, 1-11.	6.2	32
45	Beta zeolite supported solâ€“gel TiO2 materials for gas phase photocatalytic applications. Journal of Hazardous Materials, 2011, 186, 1218-1225.	12.4	32
46	On the modification of photocatalysts for improving visible light and UV degradation of gas-phase toluene over TiO2. Applied Catalysis B: Environmental, 2007, 70, 423-430.	20.2	31
47	Plasmonic Au-based junctions onto TiO2, gC3N4, and TiO2-gC3N4 systems for photocatalytic hydrogen production: Fundamentals and challenges. Renewable and Sustainable Energy Reviews, 2021, 149, 111095.	16.4	31
48	Au/TiO₂ photocatalysts prepared by solid grinding for artificial solar-light water splitting. New Journal of Chemistry, 2016, 40, 4428-4435.	2.8	30
49	A new one-dimensional tungsten carbide nanostructured material. Materials Letters, 2006, 60, 1774-1777.	2.6	29
50	H2S photocatalytic oxidation over WO3/TiO2 Hombikat UV100. Environmental Science and Pollution Research, 2014, 21, 3503-3514.	5.3	29
51	Temperature dependent photoluminescence of photocatalytically active titania nanopowders. Catalysis Today, 2007, 122, 101-108.	4.4	28
52	Cuâ€“Y zeolite supported on silicon carbide for the vapour phase oxidative carbonylation of methanol to dimethyl carbonate. Green Chemistry, 2008, 10, 207-213.	9.0	28
53	Enhanced CO photocatalytic oxidation in the presence of humidity by tuning composition of Pdâ€“Pt bimetallic nanoparticles supported on TiO2. Chemical Communications, 2011, 47, 5331.	4.1	28
54	WO3-modified TiO2 nanotubes for photocatalytic elimination of methylethylketone under UVA and solar light irradiation. Journal of Photochemistry and Photobiology A: Chemistry, 2012, 245, 43-57.	3.9	28

#	Article	IF	Citations
55	Catalytic Activity of Bulk Tungsten Carbides for Alkane Reforming. II. Catalytic Activity of Tungsten Carbides Modified by Oxygen. Journal of Catalysis, 1997, 166, 125-135.	6.2	27
56	Effect of ball-milling and Fe-/Al-doping on the structural aspect and visible light photocatalytic activity of TiO2 towards Escherichia coli bacteria abatement. Materials Science and Engineering C, 2014, 38, 11-19.	7.3	27
57	Effect of deposition of Ag nanoparticles on photoelectrocatalytic activity of vertically aligned TiO2 nanotubes. Catalysis Today, 2012, 189, 93-100.	4.4	26
58	Ta-doped TiO 2 as photocatalyst for UV-A activated elimination of chemical warfare agent simulant. Journal of Catalysis, 2016, 334, 129-141.	6.2	26
59	Photocatalytic Decontamination of Airborne T2 Bacteriophage Viruses in a Small-Size TiO2/Î²-SiC Alveolar Foam LED Reactor. Water, Air, and Soil Pollution, 2018, 229, 1.	2.4	26
60	High surface area submicrometer-sized Î²-SiC particles grown by shape memory synthesis method. Diamond and Related Materials, 2005, 14, 1353-1360.	3.9	25
61	Photocatalytic Treatment of Bioaerosols: Impact of the Reactor Design. Environmental Science & Technology, 2010, 44, 2605-2611.	10.0	25
62	Photocatalytic degradation of butanone (methylethylketone) in a small-size TiO2/Î²-SiC alveolar foam LED reactor. Applied Catalysis B: Environmental, 2014, 154-155, 301-308.	20.2	24
63	Porogen Template Assisted TiO2 Rutile Coupled Nanomaterials for Improved Visible and Solar Light Photocatalytic Applications. Catalysis Letters, 2008, 123, 65-71.	2.6	23
64	Activation and isomerization of hydrocarbons over WO3/ZrO2 catalystsII. Influence of tungsten loading on catalytic activity: Mechanistic studies and correlation with surface reducibility and tungsten surface species. Journal of Catalysis, 2008, 256, 159-171.	6.2	23
65	A new TiO2â€“Î²-SiC material for use as photocatalyst. Materials Letters, 2004, 58, 970-974.	2.6	22
66	Antibacterial textiles functionalized by layer-by-layer assembly of polyelectrolytes and TiO2photocatalyst. RSC Advances, 2015, 5, 38859-38867.	3.6	22
67	Probing the Role of Atomic Defects in Photocatalytic Systems through Photoinduced Enhanced Raman Scattering. ACS Energy Letters, 2021, 6, 4273-4281.	17.4	22
68	Synthesis and characterization of a new medium surface area TiO2â€“Î²-SiC material for use as photocatalyst. Journal of Materials Chemistry, 2004, 14, 1887-1895.	6.7	21
69	Macronized aligned carbon nanotubes for use as catalyst support and ceramic nanoporous membrane template. Catalysis Today, 2009, 145, 76-84.	4.4	21
70	Monitoring the bactericidal effect of UV-A photocatalysis: A first approach through 1D and 2D protein electrophoresis. Catalysis Today, 2009, 147, 169-172.	4.4	21
71	The effect of surface composition on the activity and selectivity in skeletal rearrangement of hydrocarbons on bulk and model tungsten carbides. Catalysis Today, 1993, 17, 493-504.	4.4	20
72	Catalytic activity and XPS surface determination of tungsten carbide for hydrocarbon reforming. Influence of the oxygen. Catalysis Letters, 1995, 35, 65-74.	2.6	20

#	Article	IF	Citations
73	Wide band gap Ga2O3 as efficient UV-C photocatalyst for gas-phase degradation applications. Environmental Science and Pollution Research, 2017, 24, 26792-26805.	5.3	20
74	Alveolar TiO2-Î²-SiC photocatalytic composite foams with tunable properties for water treatment. Catalysis Today, 2019, 328, 235-242.	4.4	20
75	Comparative study of the photocatalytic effects of pulsed laser deposited CoO and NiO nanoparticles onto TiO2 nanotubes for the photoelectrochemical water splitting. Solar Energy Materials and Solar Cells, 2020, 217, 110703.	6.2	20
76	Tungsten carbides as substitutes of platinoids in heterogeneous catalysis I. The effect of surface composition on the reactivity of methylcyclopentane on tungsten carbides. Catalysis Letters, 1991, 10, 137-148.	2.6	19
77	Catalytic Activity of Reduced MoO3/Î±-Al2O3 for Hexanes Reforming. Journal of Catalysis, 2000, 189, 269-280.	6.2	19
78	Tunable Generation and Adsorption of Energetic Compounds in the Vapor Phase at Trace Levels: A Tool for Testing and Developing Sensitive and Selective Substrates for Explosive Detection. Analytical Chemistry, 2010, 82, 3389-3393.	6.5	18
79	Synthesis of transparent vertically aligned TiO₂nanotubes on a few-layer graphene (FLG) film. Chemical Communications, 2012, 48, 1224-1226.	4.1	18
80	Synthesis of vertically aligned titanium dioxide nanotubes on microcantilevers for new nanostructured micromechanical sensors for explosive detection. Sensors and Actuators B: Chemical, 2013, 182, 489-497.	7.8	18
81	Cracking and skeletal isomerization of hexenes on acidic MoO3â€“WO3/Î±-Al2O3 oxide. Applied Catalysis A: General, 2001, 218, 13-24.	4.3	17
82	TiO2 nanorods for gas phase photocatalytic applications. Catalysis Today, 2014, 235, 193-200.	4.4	17
83	Characterization and charge transfer properties of organic BODIPY dyes integrated in TiO₂nanotube based dye-sensitized solar cells. RSC Advances, 2016, 6, 91529-91540.	3.6	17
84	One-pot synthesis of lightly doped Zn1â^'x Cu x O and Auâ€“Zn1â^'x Cu x O with solar light photocatalytic activity in liquid phase. Environmental Science and Pollution Research, 2017, 24, 15622-15633.	5.3	16
85	On the role of BmimPF6 and P/F- containing additives in the sol-gel synthesis of TiO2 photocatalysts with enhanced activity in the gas phase degradation of methyl ethyl ketone. Applied Catalysis B: Environmental, 2018, 234, 56-69.	20.2	16
86	Layer-by-Layer Photocatalytic Assembly for Solar Light-Activated Self-Decontaminating Textiles. ACS Applied Materials & Interfaces, 2016, 8, 34438-34445.	8.0	15
87	Influence of the anatase/rutile ratio on the charge transport properties of TiO₂-NTs arrays studied by dual wavelength opto-electrochemical impedance spectroscopy. Physical Chemistry Chemical Physics, 2017, 19, 31469-31478.	2.8	15
88	Functionalized TiO₂ Nanorods on a Microcantilever for the Detection of Organophosphorus Chemical Agents in Air. ACS Applied Materials & Interfaces, 2019, 11, 35122-35131.	8.0	15
89	Plasmonic photocatalysis applied to solar fuels. Faraday Discussions, 2019, 214, 417-439.	3.2	15
90	High-efficiency WO3/carbon nanotubes for olefin skeletal isomerization. Catalysis Today, 2005, 102-103, 94-100.	4.4	14

#	Article	IF	Citations
91	Photocatalytically Active Polyelectrolyte/Nanoparticle Films for the Elimination of a Model Odorous Gas. Macromolecular Rapid Communications, 2011, 32, 1145-1149.	3.9	13
92	Highâ€Frequency Stimulation of Normal and Blind Mouse Retinas Using TiO₂ Nanotubes. Advanced Functional Materials, 2018, 28, 1804639.	14.9	13
93	High surface-to-volume hybrid platelet reactor filled with catalytically grown vertically aligned carbon nanotubes. Catalysis Today, 2010, 150, 133-139.	4.4	12
94	On the use of capillary cytometry for assessing the bactericidal effect of TiO2. Identification and involvement of reactive oxygen species. Photochemical and Photobiological Sciences, 2013, 12, 610-620.	2.9	12
95	Antibacterial and Biofilm-Preventive Photocatalytic Activity and Mechanisms on P/F-Modified TiO2 Coatings. ACS Applied Bio Materials, 2020, 3, 5687-5698.	4.6	12
96	Towards the oxygenated phase coverage rate of Î²-SiC surface. Diamond and Related Materials, 2008, 17, 1867-1870.	3.9	11
97	Kinetic approach of surface acidity of W2N, Mo2N and NbN catalysts using methylbutynol as molecular probe. Journal of Molecular Catalysis A, 2002, 188, 163-172.	4.8	10
98	A tool for direct quantitative measurement of surface BrÃ¸nsted acid sites of solids by H/D exchange using D2O. Applied Catalysis A: General, 2005, 289, 37-43.	4.3	10
99	Optical limiting behavior of carbon nanotubes exposed to infrared laser irradiations studied by the Z-scan technique. Applied Optics, 2010, 49, 1097.	2.1	10
100	Few Layer Graphene/TiO₂ Composites for Enhanced Solar-Driven H₂ Production from Methanol. ACS Sustainable Chemistry and Engineering, 2021, 9, 3633-3646.	6.7	10
101	Enhanced visible-light-photoconversion efficiency of TiO2 nanotubes decorated by pulsed laser deposited CoNi nanoparticles. International Journal of Hydrogen Energy, 2019, 44, 28656-28667.	7.1	9
102	Sulfate-promoted Titania Photocatalyst for High Efficiency Gas Phase Toluene Degradation. Chemistry Letters, 2005, 34, 336-337.	1.3	8
103	Photocatalytic removal of monoterpenes in the gas phase. Activity and regeneration. Green Chemistry, 2009, 11, 966.	9.0	8
104	Theoretical and photo-electrochemical studies of surface plasmon induced visible light absorption of Ag loaded TiO2 nanotubes for water splitting. Applied Physics Letters, 2016, 109, 153903.	3.3	8
105	Double side nanostructuring of microcantilever sensors with TiO₂-NTs as a route to enhance their sensitivity. Nanoscale, 2020, 12, 13338-13345.	5.6	8
106	Mesostructured Anatase TiO2 for Visible Light and UV Photocatalysis With Confinement Effect and Semiconductor Coupling. Journal of Solar Energy Engineering, Transactions of the ASME, 2008, 130, .	1.8	7
107	Direct quantitative determination of surface BrÃ¸nsted acidity of solids by H/D exchange using D2O. Chemical Communications, 2005, , 201-203.	4.1	6
108	Study of the isomerization of 13C labelled methylpentanes on oxygen modified bulk tungsten carbides. Physical Chemistry Chemical Physics, 2000, 2, 2893-2902.	2.8	5

#	ARTICLE	IF	CITATIONS
109	Bio-inspired Explosive Sensors and Specific Signatures. Procedia Engineering, 2014, 87, 740-746.	1.2	5
110	Modified-TiO2 Photocatalyst Supported on Î²-SiC Foams for the Elimination of Gaseous Diethyl Sulfide as an Analog for Chemical Warfare Agent: Towards the Development of a Photoreactor Prototype. Catalysts, 2021, 11, 403.	3.5	5
111	H/D exchange using D2O on carbon materials: A flexible tool for surface BrÃ¸nsted acidity direct measurement. Catalysis Today, 2005, 102-103, 266-272.	4.4	4
112	Anions and cations distribution in M 5+ /N 3- co-alloyed TiO 2 nanotubular structures for photo-electrochemical water splitting. Materials Science in Semiconductor Processing, 2018, 73, 22-29.	4.0	4
113	Electrosynthesis of gradient TiO2 nanotubes and rapid screening using scanning photoelectrochemical microscopy. Sustainable Energy and Fuels, 2020, 4, 1099-1104.	4.9	4
114	Titania-Carbon Nitride Interfaces in Gold-Catalyzed CO Oxidation. ACS Applied Materials & Interfaces, 2021, 13, 61015-61026.	8.0	4
115	Title is missing!. Catalysis Letters, 1997, 47, 63-69.	2.6	3
116	Design of an efficient measurement cell for characterizing sensing properties of nanostructured sensitive layers coated on chips. Sensors and Actuators B: Chemical, 2012, 166-167, 829-832.	7.8	3
117	Reply to Comment on â€œTunable Generation and Adsorption of Energetic Compounds in the Vapor Phase at Trace Levels: A Tool for Testing and Developing Sensitive and Selective Substrates for Explosive Detectionâ€• Analytical Chemistry, 2013, 85, 3016-3016.	6.5	2
118	Nanostructured and functionalized cantilever for sensing organophosphorous compounds. , 2019, , .		2
119	Investigation of interactions between organophosphorus compounds and TiO₂ modified microcantilevers for molecule detection in air. Materials Advances, 2022, 3, 3600-3609.	5.4	1
120	Macromol. Rapid Commun. 15/2011. Macromolecular Rapid Communications, 2011, 32, .	3.9	0
121	Ordered Layers of TiO2 Nanotubes as Anode for Photoelectrochemical Water Splitting. ECS Meeting Abstracts, 2011, , .	0.0	0
122	Niobium Alloying of Self-Organized TiO2 Nanotubes As an Anode for Lithium-Ion Micro Batteries. ECS Meeting Abstracts, 2018, , .	0.0	0