Frederic Thevenet

List of Publications by Year
in descending order

62	2,416	186265	206112
papers	citations	28 h-index	48 g-index

65	65	65	2292
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	The 2020 plasma catalysis roadmap. Journal Physics D: Applied Physics, 2020, 53, 443001.	2.8	362
2	Plasmaâ€“catalyst coupling for volatile organic compound removal and indoor air treatment: a review. Journal Physics D: Applied Physics, 2014, 47, 224011.	2.8	168
3	Toluene photocatalytic oxidation at ppbv levels: Kinetic investigation and carbon balance determination. Applied Catalysis B: Environmental, 2011, 106, 600-608.	20.2	102
4	C2H2 oxidation by plasma/TiO2 combination: Influence of the porosity, and photocatalytic mechanisms under plasma exposure. Applied Catalysis B: Environmental, 2008, 80, 296-305.	20.2	85
5	Oxidation of isopropanol and acetone adsorbed on TiO2 under plasma generated ozone flow: Gas phase and adsorbed species monitoring. Applied Catalysis B: Environmental, 2014, 147, 302-313.	20.2	82
6	VOC ternary mixture effect on ppb level photocatalytic oxidation: Removal kinetic, reaction intermediates and mineralization. Applied Catalysis B: Environmental, 2017, 218, 359-369.	20.2	73
7	Photocatalytic oxidation of VOCs at ppb level using a closed-loop reactor: The mixture effect. Applied Catalysis B: Environmental, 2018, 226, 473-486.	20.2	73
8	Investigation of NO and NO2 adsorption mechanisms on TiO2 at room temperature. Applied Catalysis B: Environmental, 2013, 142-143, 196-204.	20.2	71
9	Isopropanol saturated TiO2 surface regeneration by non-thermal plasma: Influence of air relative humidity. Chemical Engineering Journal, 2013, 214, 17-26.	12.7	68
10	NO 2 adsorption mechanism on TiO 2 : An in-situ transmission infrared spectroscopy study. Applied Catalysis B: Environmental, 2016, 198, 411-419.	20.2	68
11	Photocatalytic degradation of acetylene over various titanium dioxide-based photocatalysts. Applied Catalysis B: Environmental, 2005, 61, 58-68.	20.2	67
12	Oxidation of acetylene by photocatalysis coupled with dielectric barrier discharge. Catalysis Today, 2007, 122, 186-194.	4.4	64
13	Dynamic of the plasma current amplitude in a barrier discharge: influence of photocatalytic material. Journal Physics D: Applied Physics, 2006, 39, 2964-2972.	2.8	58
14	Emissions and treatment of VOCs emitted from wood-based construction materials: Impact on indoor air quality. Chemical Engineering Journal, 2018, 354, 641-652.	12.7	58
15	Isopropanol removal using MnXOY packed bed non-thermal plasma reactor: Comparison between continuous treatment and sequential sorption/regeneration. Chemical Engineering Journal, 2015, 270, 327-335.	12.7	55
16	Acetylene photocatalytic oxidation using continuous flow reactor: Gas phase and adsorbed phase investigation, assessment of the photocatalyst deactivation. Chemical Engineering Journal, 2014, 244, 50-58.	12.7	51
17	Dynamic probing of plasmaâ€catalytic surface processes: Oxidation of toluene on CeO₂. Plasma Processes and Polymers, 2017, 14, 1600114.	3.0	48
18	VOC uptakes on gypsum boards: Sorption performances and impact on indoor air quality. Building and Environment, 2018, 137, 138-146.	6.9	48

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19	Influence of water vapour on plasma/photocatalytic oxidation efficiency of acetylene. Applied Catalysis B: Environmental, 2008, 84, 813-820.	20.2	47
20	Gas phase photocatalytic oxidation of decane at ppb levels: Removal kinetics, reaction intermediates and carbon mass balance. Journal of Photochemistry and Photobiology A: Chemistry, 2013, 258, 17-29.	3.9	47
21	Acetaldehyde and acetic acid adsorption on TiO2 under dry and humid conditions. Chemical Engineering Journal, 2015, 264, 197-210.	12.7	45
22	Performances and limitations of electronic gas sensors to investigate an indoor air quality event. Building and Environment, 2016, 107, 19-28.	6.9	42
23	Water Interaction with Mineral Dust Aerosol: Particle Size and Hygroscopic Properties of Dust. ACS Earth and Space Chemistry, 2018, 2, 376-386.	2.7	37
24	OH Radicals and H₂O₂ Molecules in the Gas Phase near to TiO₂ Surfaces. Journal of Physical Chemistry C, 2010, 114, 3082-3088.	3.1	35
25	Investigating the Heterogeneous Interaction of VOCs with Natural Atmospheric Particles: Adsorption of Limonene and Toluene on Saharan Mineral Dusts. Journal of Physical Chemistry A, 2016, 120, 1197-1212.	2.5	35
26	Investigating water adsorption onto natural mineral dust particles: Linking DRIFTS experiments and BET theory. Aeolian Research, 2017, 27, 35-45.	2.7	34
27	Behaviour of individual VOCs in indoor environments: How ventilation affects emission from materials. Atmospheric Environment, 2020, 243, 117713.	4.1	32
28	Photocatalyst activation in a pulsed low pressure discharge. Applied Physics Letters, 2005, 87, 221501.	3.3	31
29	Photocatalytic treatment of VOC industrial emissions: IPA removal using a sensor-instrumented reactor. Chemical Engineering Journal, 2018, 353, 394-409.	12.7	29
30	Regeneration of isopropyl alcohol saturated MnXOY surface: Comparison of thermal, ozonolysis and non-thermal plasma treatments. Chemical Engineering Journal, 2014, 246, 184-195.	12.7	26
31	Non-Thermal Plasma Assisted Regeneration of Acetone Adsorbed TiO2 Surface. Plasma Chemistry and Plasma Processing, 2013, 33, 855-871.	2.4	23
32	Uptake and surface chemistry of SO2 on natural volcanic dusts. Atmospheric Environment, 2019, 217, 116942.	4.1	23
33	Heterogeneous Interaction of Isopropanol with Natural Gobi Dust. Environmental Science & Technology, 2016, 50, 11714-11722.	10.0	22
34	Limonene photocatalytic oxidation at ppb levels: Assessment of gas phase reaction intermediates and secondary organic aerosol heterogeneous formation. Applied Catalysis B: Environmental, 2015, 168-169, 183-194.	20.2	21
35	Acetaldehyde adsorption on TiO2: Influence of NO2 preliminary adsorption. Chemical Engineering Journal, 2015, 281, 126-133.	12.7	21
36	Indoor use of essential oils: Emission rates, exposure time and impact on air quality. Atmospheric Environment, 2021, 244, 117863.	4.1	20

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37	Synthesis of Hydrogen Peroxide Using Dielectric Barrier Discharge Associated with Fibrous Materials. Plasma Chemistry and Plasma Processing, 2010, 30, 489-502.	2.4	19
38	Does the ubiquitous use of essential oil-based products promote indoor air quality? A critical literature review. Environmental Science and Pollution Research, 2020, 27, 14365-14411.	5.3	19
39	Heterogeneous Interaction of Isoprene with Natural Gobi Dust. ACS Earth and Space Chemistry, 2017, 1, 236-243.	2.7	18
40	Ozone Uptake by Clay Dusts under Environmental Conditions. ACS Earth and Space Chemistry, 2018, 2, 904-914.	2.7	17
41	Treatment of household product emissions in indoor air: Real scale assessment of the removal processes. Chemical Engineering Journal, 2020, 380, 122525.	12.7	17
42	The 40 m 3 Innovative experimental Room for INdoor Air studies (IRINA): Development and validations. Chemical Engineering Journal, 2016, 306, 568-578.	12.7	14
43	Determination of the environment of lanthanide ions in a simplified non-active nuclear glass and its weathering gel products â€“ Europium as a structural luminescent probe. Journal of Non-Crystalline Solids, 2005, 351, 673-677.	3.1	13
44	Method development and validation for the determination of sulfites and sulfates on the surface of mineral atmospheric samples using reverse-phase liquid chromatography. Talanta, 2020, 219, 121318.	5.5	13
45	How chemical and physical mechanisms enable the influence of the operating conditions in a photocatalytic indoor air treatment device to be modeled. Chemical Engineering Journal, 2017, 307, 766-775.	12.7	12
46	Isoprene Heterogeneous Uptake and Reactivity on TiO₂ : A Kinetic and Product Study. International Journal of Chemical Kinetics, 2017, 49, 773-788.	1.6	11
47	Plasma-Catalytic Mineralization of Toluene Adsorbed on CeO2. Catalysts, 2018, 8, 303.	3.5	10
48	Geocatalytic Uptake of Ozone onto Natural Mineral Dust. Catalysts, 2018, 8, 263.	3.5	10
49	Indoor use of essential oil-based cleaning products: Emission rate and indoor air quality impact assessment based on a realistic application methodology. Atmospheric Environment, 2021, 246, 118060.	4.1	10
50	Heterogeneous Interaction of Various Natural Dust Samples with Isopropyl Alcohol as a Probe VOC. Journal of Physical Chemistry A, 2018, 122, 4911-4919.	2.5	9
51	Determination of the Clean Air Delivery Rate (CADR) of Photocatalytic Oxidation (PCO) Purifiers for Indoor Air Pollutants Using a Closed-Loop Reactor. Part II: Experimental Results. Molecules, 2017, 22, 408.	3.8	8
52	Uptake Mechanism of Acetic Acid onto Natural Gobi Dust. ACS Earth and Space Chemistry, 2020, 4, 1650-1662.	2.7	7
53	Development and validation of a thermally regulated atmospheric simulation chamber (THALAMOS): A versatile tool to simulate atmospheric processes. Journal of Environmental Sciences, 2020, 95, 141-154.	6.1	7
54	The indoor fate of terpenes: Quantification of the limonene uptake by materials. Building and Environment, 2021, 188, 107433.	6.9	6

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55	How Relevant Is It to Use Mineral Proxies to Mimic the Atmospheric Reactivity of Natural Dust Samples? A Reactivity Study Using SO2 as Probe Molecule. Minerals (Basel, Switzerland), 2021, 11, 282.	2.0	6
56	Reactive uptake of NO2 on volcanic particles: A possible source of HONO in the atmosphere. Journal of Environmental Sciences, 2020, 95, 155-164.	6.1	5
57	Adsorption of VOCs Is a Key Step in Plasma-Catalyst Coupling: The Case of Acetone onto TiO2 vs. CeO2. Catalysts, 2021, 11, 350.	3.5	4
58	Formaldehyde and glyoxal measurement deploying a selected ion flow tube mass spectrometer (SIFT-MS). Atmospheric Measurement Techniques, 2022, 15, 2001-2019.	3.1	4
59	Photo-enhanced uptake of SO₂ on Icelandic volcanic dusts. Environmental Science Atmospheres, 2022, 2, 375-387.	2.4	2
60	Surface Distribution of Sulfites and Sulfates on Natural Volcanic and Desert Dusts: Impact of Humidity and Chemical Composition. ACS Earth and Space Chemistry, 2022, 6, 642-655.	2.7	2
61	Impact of essential-oil-based cleaning products on indoor air quality: From liquid composition to test emission chamber. IOP Conference Series: Materials Science and Engineering, 2019, 609, 042095.	0.6	0
62	Assessment of an experimental method for determining the three key parameters of VOC emissions from solid materials. IOP Conference Series: Materials Science and Engineering, 2019, 609, 032034.	0.6	0