Shuzo Kutsuna

List of Publications by Year
in descending order

82 papers	4,144 citations	201385 27 h-index	110170 64 g-index
91 all docs	91 docs citations	91 times ranked	4245 citing authors

#	Article	IF	Citations
1	Role of oxygen vacancy in the plasma-treated TiO2 photocatalyst with visible light activity for NO removal. Journal of Molecular Catalysis A, 2000, 161, 205-212.	4.8	1,110
2	Efficient Decomposition of Environmentally Persistent Perfluorocarboxylic Acids by Use of Persulfate as a Photochemical Oxidant. Environmental Science & Technology, 2005, 39, 2383-2388.	4.6	493
3	Decomposition of Environmentally Persistent Perfluorooctanoic Acid in Water by Photochemical Approaches. Environmental Science & Technology, 2004, 38, 6118-6124.	4.6	376
4	Efficient Decomposition of Environmentally Persistent Perfluorooctanesulfonate and Related Fluorochemicals Using Zerovalent Iron in Subcritical Water. Environmental Science & Technology, 2006, 40, 1049-1054.	4.6	240
5	Efficient Decomposition of Perfluorocarboxylic Acids and Alternative Fluorochemical Surfactants in Hot Water. Environmental Science & Technology, 2008, 42, 7438-7443.	4.6	200
6	Cl Atom-Initiated Oxidation of Three Homologous Methyl Perfluoroalkyl Ethers. Environmental Science & Technology, 2001, 35, 114-120.	4.6	98
7	Photochemical decomposition of environmentally persistent short-chain perfluorocarboxylic acids in water mediated by iron(II)/(III) redox reactions. Chemosphere, 2007, 68, 572-578.	4.2	84
8	Efficient decomposition of perfluoroether carboxylic acids in water with a combination of persulfate oxidant and ultrasonic irradiation. Journal of Fluorine Chemistry, 2012, 141, 5-10.	0.9	70
9	Effect of Pd-photodeposition over TiO2 on product selectivity in photocatalytic degradation of vinyl chloride monomer. Journal of Molecular Catalysis A, 2002, 189, 263-270.	4.8	65
10	Iron-induced decomposition of perfluorohexanesulfonate in sub- and supercritical water. Chemosphere, 2008, 70, 800-806.	4.2	65
11	Anchoring titanium dioxide on carbon spheres for high-performance visible light photocatalysis. Applied Catalysis B: Environmental, 2017, 207, 255-266.	10.8	64
12	Heterogeneous photochemical reactions between volatile chlorinated hydrocarbons (trichloroethene and tetrachloroethene) and titanium dioxide. Atmospheric Environment Part A General Topics, 1993, 27, 599-604.	1.3	62
13	Rate constants for aqueous-phase reactions of SO4â˙ with C2F5C(O)Oâ˙ and C3F7C(O)Oâ˙ at 298 K. International Journal of Chemical Kinetics, 2007, 39, 276-288.	1.0	61
14	Photocatalytic decomposition of a perfluoroether carboxylic acid by tungstic heteropolyacids in water. Applied Catalysis B: Environmental, 2008, 82, 58-66.	10.8	58
15	Persulfate-induced photochemical decomposition of a fluorotelomer unsaturated carboxylic acid in water. Water Research, 2007, 41, 2962-2968.	5.3	56
16	Experimental determination of Henry's law constant of perfluorooctanoic acid (PFOA) at 298K by means of an inert-gas stripping method with a helical plate. Atmospheric Environment, 2008, 42, 8883-8892.	1.9	43
17	Kinetics and Mechanisms for the Reactions of CF3OCH3 and CF3OC(O)H with OH Radicals Using an Environmental Reaction Chamber. Journal of Physical Chemistry A, 2001, 105, 10854-10859.	1.1	42
18	New technique for generating high concentrations of gaseous OH radicals in relative rate measurements. International Journal of Chemical Kinetics, 2003, 35, 317-325.	1.0	39

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19	Efficient Photochemical Decomposition of Long-Chain Perfluorocarboxylic Acids by Means of an Aqueous/Liquid CO2Biphasic System. Environmental Science & Technology, 2005, 39, 7692-7697.	4.6	39
20	TiO2-Induced Heterogeneous Photodegradation of a Fluorotelomer Alcohol in Air. Environmental Science & Technology, 2006, 40, 6824-6829.	4.6	38
21	Efficient mineralization of hydroperfluorocarboxylic acids with persulfate in hot water. Catalysis Today, 2010, 151, 131-136.	2.2	38
22	Kinetics and Mechanisms of CF3CHFOCH3, CF3CHFOC(O)H, and FC(O)OCH3Reactions with OH Radicals. Journal of Physical Chemistry A, 2006, 110, 12845-12851.	1.1	37
23	ESR study of singlet oxygen generation and its behavior during the photo-oxidation of P3HT in solution. Chemical Physics Letters, 2015, 624, 87-92.	1.2	35
24	Photochemical decomposition of pentafluoropropionic acid to fluoride ions with a water-soluble heteropolyacid photocatalyst. Applied Catalysis B: Environmental, 2003, 46, 333-340.	10.8	34
25	A product study of the OH radical initiated oxidation of perchloroethylene and trichloroethylene. Chemosphere, 1994, 28, 2029-2040.	4.2	33
26	Kinetics and Mechanism of (CF3)2CHOCH3Reaction with OH Radicals in an Environmental Reaction Chamber. Journal of Physical Chemistry A, 2005, 109, 4766-4771.	1.1	30
27	Henry's law constants of 2,2,2-trifluoroethyl formate, ethyl trifluoroacetate, and non-fluorinated analogous esters. Atmospheric Environment, 2005, 39, 5884-5892.	1.9	28
28	Photocatalytic Degradation of Some Methyl Perfluoroalkyl Ethers on TiO2Particles in Air:Â The Dependence on the Dark-Adsorption, the Products, and the Implication for a Possible Tropospheric Sink. Environmental Science & Technology, 1999, 33, 1071-1076.	4.6	27
29	Solubility and reactivity of peroxyacetyl nitrate (PAN) in dilute aqueous salt solutions and in sulphuric acid. Atmospheric Environment, 2000, 34, 3641-3644.	1.9	27
30	Kinetics for the gas-phase reactions of OH radicals with the hydrofluoroethers CH2FCF2OCHF2, CHF2CF2OCH2CF3, CF3CHFCF2OCH2CF3, and CF3CHFCF2OCH2CF2CHF2 at 268-308 K. International Journal of Chemical Kinetics, 2003, 35, 239-245.	1.0	27
31	Efficient photochemical recovery of rhenium from aqueous solutions. Separation and Purification Technology, 2015, 156, 242-248.	3.9	27
32	Decomposition of Perfluorinated Ion-Exchange Membrane to Fluoride Ions Using Zerovalent Metals in Subcritical Water. Industrial & Engineering Chemistry Research, 2010, 49, 464-471.	1.8	26
33	Henry's law constants and hydrolysis rate constants of 2,2,2-trifluoroethyl acetate and methyl trifluoroacetate. Atmospheric Environment, 2004, 38, 725-732.	1.9	23
34	Photocatalytic mineralization of vinyl chloride on TiO2. Journal of Molecular Catalysis A, 2001, 168, 233-240.	4.8	21
35	Experimental determination of Henry's law constants of trifluoroacetic acid at 278â€“298K. Atmospheric Environment, 2008, 42, 1399-1412.	1.9	21
36	Preferential solvation of perfluorooctanoic acid (PFOA) by methanol in methanolâ€“water mixtures: A potential overestimation of the dissociation constant of PFOA using a Yasudaâ€“Shedlovsky plot. Atmospheric Environment, 2012, 49, 411-414.	1.9	21

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37	Continuous measurement of ozone in air by chemiluminescence using ndigo-5,5â€²-disulphonate. Analytica Chimica Acta, 1990, 230, 183-187.	2.6	20
38	Experimental and modeling approaches for the formation of hydroperoxide during the auto-oxidation of polymers: Thermal-oxidative degradation of polyethylene oxide. Chemical Physics Letters, 2016, 657, 83-89.	1.2	20
39	Kinetics of gasâ€phase reactions of CH₃OCH₂CF₃, CH₃OCH₃, CH₃OCH₂CH₃, CH₃CH₂OCH₂CH₃, and CHF₂CF₂OCH₂CF₃ with NO₃ radicals at 298 K. International Journal of Chemical Kinetics, 2009, 41, 490-497.	1.0	19
40	Environmental assessment of CFC alternatives. Journal of Fluorine Chemistry, 2004, 125, 1801-1807.	0.9	18
41	An ESR study on superoxide radical anion generation and its involvement in the photooxidative degradation of poly-3-hexylthiophene in chlorobenzene solution. Chemical Physics Letters, 2014, 605-606, 98-102.	1.2	16
42	Adsorption and reaction of trichlorofluoromethane on various particles. Journal of Atmospheric Chemistry, 1992, 14, 1-10.	1.4	15
43	Kinetics study of the gas-phase reactions of C2F5OC(O)H and n-C3F7OC(O)H with OH radicals at 253â€“328 K. Chemical Physics Letters, 2004, 400, 563-568.	1.2	15
44	Coordination structures of organically bound paramagnetic metals in coal and their transformation upon solvent extraction. Fuel, 2008, 87, 2628-2640.	3.4	15
45	Oxygen-induced efficient mineralization of perfluoroalkylether sulfonates in subcritical water. Chemosphere, 2009, 77, 1400-1405.	4.2	15
46	Kinetics of the gasâ€phase reactions of CHXï£¾CFX (X = H, F) with OH (253â€“328 K) and NO₃ (298) Tj ETQq0 0 0 rgBT /	1.0	14
47	Photocatalytic mineralization of hydroperfluorocarboxylic acids with heteropolyacid H4SiW12O40 in water. Chemosphere, 2011, 82, 1129-1134.	4.2	14
48	ESR spin trapping determination of the hydroperoxide concentration in polyethylene oxide (PEO) in aqueous solution. Polymer Degradation and Stability, 2017, 139, 89-96.	2.7	13
49	Transformation and decomposition of 1,1,1-trichloroethane on titanium dioxide in the dark and under photoillumination. Atmospheric Environment, 1994, 28, 1627-1631.	1.9	11
50	Laboratory study on heterogeneous degradation of methyl chloroform (CH3CCl3) on aluminosilica clay minerals as its potential tropospheric sink. Journal of Geophysical Research, 2000, 105, 6611-6620.	3.3	11
51	Fourier transform infrared measurement of the formation of nitrogen compounds on sodium chloride particles exposed to the ambient air in the Arctic. Journal of Geophysical Research, 1994, 99, 25479.	3.3	10
52	Rate constants for the gas-phase reaction of CF3CF2CF2CF2CF2CHF2 with OH radicals at 250-430 K. International Journal of Chemical Kinetics, 2004, 36, 26-33.	1.0	10
53	Kinetics study of the gas-phase reactions of CHF2CF2OCHF2 and CF3CHFCF2OCH2CF2CF3 with OH radicals at 253â€“328K. Chemical Physics Letters, 2005, 403, 180-184.	1.2	10
54	Kinetics of the gas-phase reaction of CF3OC(O)H with OH radicals at 242-328 K. International Journal of Chemical Kinetics, 2004, 36, 337-344.	1.0	9

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55	Visible light-induced decomposition of a fluorotelomer unsaturated carboxylic acid in water with a combination of tungsten trioxide and persulfate. Chemosphere, 2013, 93, 2732-2737.	4.2	9
56	Kinetics and mechanism of gas-phase reactions of n-C4F9OCH3, i-C4F9OCH3, n-C4F9OC(O)H, and i-C4F9OC(O)H with OH radicals in an environmental reaction chamber at 253â€“328K. Chemical Physics Letters, 2011, 514, 207-213.	1.2	8
57	Rate constants for the gas-phase reactions of cyclo-CXCXCF2CF2â€“ (X=H, F) with OH radicals at a temperature range of 253â€“328K. Chemical Physics Letters, 2013, 572, 21-25.	1.2	8
58	Efficient photochemical decomposition of trifluoroacetic acid and its analogues with electrolyzed sulfuric acid. Journal of Photochemistry and Photobiology A: Chemistry, 2017, 332, 167-173.	2.0	7
59	Henryâ€™s law constants and hydration equilibrium constants of n-hexanal and their temperature dependence as determined by the rectangular pulse method. Chemical Engineering Science, 2021, 239, 116639.	1.9	7
60	Heterogeneous Photoreaction of Tetrachloroetheneâˆ’Air Mixture on Halloysite Particles. Environmental Science & Technology, 2000, 34, 2484-2489.	4.6	6
61	Rate constants of gas-phase reactions of trans-cyc-CF2CF2CHFCHFâ€“ and cyc-CF2CF2CH2CHClâ€“ with OH radicals at 253â€“328 K. Chemical Physics Letters, 2006, 418, 519-523.	1.2	6
62	A theoretical study of thermal decomposition of CF3CO, C2F5CO and C3F7CO. Chemical Physics Letters, 2006, 429, 360-364.	1.2	6
63	Rate constants and conversion ratios for aqueousâ€phase reactions of SO with C_nF_{2n+1}C(O)O^{âˆ’}(n= 4â€“7) at 298 K. International Journal of Chemical Kinetics, 2009, 41, 735-747.	1.0	6
64	Determination of Rate Constants for Aqueous Reactions of HCFC-123 and HCFC-225ca with OHâˆ’ Along with Henry's Law Constants of Several HCFCs. International Journal of Chemical Kinetics, 2013, 45, 440-451.	1.0	6
65	Determination of the mechanism of polymer thermolysis at low temperatures using spin trap electron spin resonance. Polymer, 2020, 203, 122747.	1.8	6
66	Heterogeneous Decomposition of CHF2OCH2CF3and CHF2OCH2C2F5over Various Standard Aluminosilica Clay Minerals in Air at 313 K. Environmental Science & Technology, 2002, 36, 3118-3123.	4.6	5
67	Kinetic study of the gas-phase reaction of CF3CHFCF2CH2OH with OH radicals at 230â€“430 K. Chemical Physics Letters, 2003, 382, 277-282.	1.2	5
68	Laboratory study on heterogeneous decomposition of methyl chloroform on various standard aluminosilica clay minerals as a potential tropospheric sink. Atmospheric Chemistry and Physics, 2003, 3, 1063-1082.	1.9	5
69	Kinetics of the gas-phase reaction of CF2CFâ€“CFCF2 with O3 and NO3 radicals. Chemical Physics Letters, 2005, 416, 187-191.	1.2	5
70	Kinetics study of the gas-phase reactions of cyclo-CF2CF2CHXCHXâ€“ (X = F, Cl) and cyclo-CF2CFClCCl2CH2â€“ with OH radicals at 253â€“328 K. Chemical Physics Letters, 2007, 439, 40-45.	1.2	5
71	Determination of formaldehyde in water by chemiluminescence after derivatization.. Bunseki Kagaku, 1993, 42, 439-443.	0.1	4
72	Cl initiated decomposition mechanisms of bromochloromethane. Chemosphere, 1994, 29, 1701-1710.	4.2	4

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73	Effect of fluorine substitution on the rate for ester hydrolysis: estimation of the hydrolysis rate of perfluoroalkyl esters. Computational and Theoretical Chemistry, 2003, 635, 83-89.	1.5	3
74	Kinetics of the gasâ€phase reactions of cycloâ€CF₂CFXCHXCHX â€“ (X = H, F, Cl) with OH radicals at 253â€“328 K. International Journal of Chemical Kinetics, 2009, 41, 532-542.	1.0	3
75	Kinetics study of gas-phase reactions of erythro/threo-CF3CHFCHFC2F5 with OH radicals at 253â€“328K. Chemical Physics Letters, 2010, 488, 22-26.	1.2	3
76	Solubility and hydrolysis of HCFC-22 (CHF2 Cl): Upward revision of rate constants for aqueous reactions of CHF2 Cl with OHâ¯ at elevated temperature. International Journal of Chemical Kinetics, 2011, 43, 639-647.	1.0	3
77	Rate constants and C C bond scission ratios for hydrolysis of 2,2,3-trifluoro-3-(trifluoromethyl)oxirane determined by means of a closed-circulation reactor. Journal of Fluorine Chemistry, 2018, 211, 109-118.	0.9	3
78	Atmospheric chemistry of perfluoronitriles: Environmental impact and experimental evidence related to N2O and NO formation. Atmospheric Environment, 2019, 198, 175-182.	1.9	3
79	Evaluation of the alkaline hydrolysis of HCFC-22 (CHClF 2) in a closed-circulation reactor. Journal of Fluorine Chemistry, 2016, 182, 127-133.	0.9	2
80	Kinetics and mechanism of gas-phase reaction of CF3CF2CF2CF2CF2CF2CF2H with OH radicals in an environmental reaction chamber at 253â€“328K. Chemical Physics Letters, 2011, 501, 263-266.	1.2	1
81	Experimental determination of Henry's law constants of difluoromethaneÂ(HFC-32) and the salting-out effects in aqueous salt solutions relevant to seawater. Atmospheric Chemistry and Physics, 2017, 17, 7495-7507.	1.9	1
82	Laboratory Study on Uptake of Gaseous Molecular Iodine by Clay Minerals at Different Relative Humidity. Environmental Science Atmospheres, 0, , .	0.9	0