

Tai Gyu Lee

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

79
papers

2,810
citations

29
h-index

51
g-index

80
ext. papers

3,049
ext. citations

5.8
avg, IF

5.06
L-index

#	Paper	IF	Citations
79	The phytochelatin transporters AtABCC1 and AtABCC2 mediate tolerance to cadmium and mercury. <i>Plant Journal</i> , 2012 , 69, 278-88	6.9	359
78	A structured CoB catalyst for hydrogen extraction from NaBH ₄ solution. <i>Catalysis Today</i> , 2007 , 120, 305-310	5.3	181
77	Removal of gas-phase elemental mercury by iodine- and chlorine-impregnated activated carbons. <i>Atmospheric Environment</i> , 2004 , 38, 4887-4893	5.3	180
76	Experimental and theoretical studies of ultra-fine particle behavior in electrostatic precipitators. <i>Journal of Electrostatics</i> , 2000 , 48, 245-260	1.7	145
75	Heterogeneous Mercury Reaction on a Selective Catalytic Reduction (SCR) Catalyst. <i>Catalysis Letters</i> , 2008 , 121, 219-225	2.8	120
74	Fuel crossover in direct formic acid fuel cells. <i>Journal of Power Sources</i> , 2007 , 168, 119-125	8.9	108
73	Synthesis and characterization of MnMCM-41 and ZrMn-MCM-41. <i>Microporous and Mesoporous Materials</i> , 2005 , 78, 139-149	5.3	90
72	Preparation and characterization of mesoporous TiO ₂ particles by modified sol-gel method using ionic liquids. <i>Microporous and Mesoporous Materials</i> , 2005 , 84, 211-217	5.3	87
71	The effects of sonification and TiO ₂ deposition on the micro-characteristics of the thermally treated SiO ₂ /TiO ₂ spherical core-shell particles for photo-catalysis of methyl orange. <i>Microporous and Mesoporous Materials</i> , 2008 , 116, 561-568	5.3	75
70	Capture of Mercury in Combustion Systems by In Situ Generated Titania Particles with UV Irradiation. <i>Environmental Engineering Science</i> , 1998 , 15, 137-148	2	72
69	FTIR Studies on Selected Mesoporous Metallosilicate Molecular Sieves. <i>Chemistry Letters</i> , 2005 , 34, 1290-1291	6.9	69
68	Removal and recovery of mercury from aqueous solution using magnetic silica nanocomposites. <i>Applied Surface Science</i> , 2011 , 257, 4754-4759	6.7	65
67	Mercury emissions from automobiles using gasoline, diesel, and LPG. <i>Atmospheric Environment</i> , 2007 , 41, 7547-7552	5.3	63
66	Mercury removal from incineration flue gas by organic and inorganic adsorbents. <i>Chemosphere</i> , 2002 , 47, 907-13	8.4	60
65	Direct synthesis of well-ordered and unusually reactive MnSBA-15 mesoporous molecular sieves with high manganese content. <i>Journal of Physical Chemistry B</i> , 2006 , 110, 21793-802	3.4	56
64	Investigations of performance degradation and mitigation strategies in direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , 2009 , 34, 2043-2051	6.7	54
63	Controlled release of lidocaine hydrochloride from the surfactant-doped hybrid xerogels. <i>Journal of Controlled Release</i> , 2005 , 104, 497-505	11.7	50

62	A review of international trends in mercury management and available options for permanent or long-term mercury storage. <i>Journal of Hazardous Materials</i> , 2012 , 241-242, 1-13	12.8	33
61	Mercury emissions from selected stationary combustion sources in Korea. <i>Science of the Total Environment</i> , 2004 , 325, 155-61	10.2	33
60	Biosorption of mercury(II) ions from aqueous solution by garlic (<i>Allium sativum</i> L.) powder. <i>Korean Journal of Chemical Engineering</i> , 2011 , 28, 1439-1443	2.8	32
59	Comparison of Hg ⁰ capture efficiencies of three in situ generated sorbents. <i>AIChE Journal</i> , 2001 , 47, 954-961	3.6	32
58	Overall Kinetics of Heterogeneous Elemental Mercury Reactions on TiO ₂ Sorbent Particles with UV Irradiation. <i>Industrial & Engineering Chemistry Research</i> , 2004 , 43, 1411-1417	3.9	31
57	A simultaneous stabilization and solidification of the top five most toxic heavy metals (Hg, Pb, As, Cr, and Cd). <i>Chemosphere</i> , 2017 , 178, 479-485	8.4	30
56	Photocatalytic oxidation of gas-phase elemental mercury by nanotitanosilicate fibers. <i>Chemosphere</i> , 2008 , 71, 969-74	8.4	30
55	Evaluation of cellulose-binding domain fused to a lipase for the lipase immobilization. <i>Biotechnology Letters</i> , 2004 , 26, 603-5	3	30
54	A novel route to produce 4-t-butyltoluene by t-butylation of toluene with t-butylalcohol over mesoporous Al-MCM-41 molecular sieves. <i>Applied Catalysis A: General</i> , 2005 , 286, 44-51	5.1	30
53	Estimation of total annual mercury emissions from cement manufacturing facilities in Korea. <i>Atmospheric Environment</i> , 2012 , 62, 265-271	5.3	29
52	A pilot-scale TiO ₂ photocatalytic system for removing gas-phase elemental mercury at Hg-emitting facilities. <i>Journal of Industrial and Engineering Chemistry</i> , 2013 , 19, 144-149	6.3	29
51	Photoluminescence of La/Ti mixed oxides prepared using sol-gel process and their pCBA photodecomposition. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , 2007 , 185, 156-160	4.7	29
50	Enzymatic esterification of beta-methylglucoside with acrylic/methacrylic acid in organic solvents. <i>Journal of Biotechnology</i> , 2004 , 107, 151-60	3.7	29
49	A novel route to produce phthalic anhydride by oxidation of o-xylene with air over mesoporous V-Mo-MCM-41 molecular sieves. <i>Microporous and Mesoporous Materials</i> , 2005 , 85, 39-51	5.3	28
48	Stabilization/solidification of mercury-contaminated waste ash using calcium sodium phosphate (CNP) and magnesium potassium phosphate (MKP) processes. <i>Journal of Hazardous Materials</i> , 2014 , 278, 474-82	12.8	27
47	Highly selective synthesis of trans-stilbene oxide over mesoporous Mn-MCM-41 and Zr/Mn-MCM-41 molecular sieves. <i>Microporous and Mesoporous Materials</i> , 2005 , 79, 261-268	5.3	26
46	Structural effect of the in situ generated titania on its ability to oxidize and capture the gas-phase elemental mercury. <i>Chemosphere</i> , 2006 , 62, 26-33	8.4	25
45	Synthesis of mesoporous TiO ₂ /Al ₂ O ₃ composite granules with different sol composition and calcination temperature. <i>Powder Technology</i> , 2008 , 181, 83-88	5.2	24

44	Impact of cathode channel depth on performance of direct methanol fuel cells. <i>Journal of Power Sources</i> , 2008 , 183, 226-231	8.9	24
43	Synthesis of 2-acetyl-6-methoxynaphthalene using mesoporous γ -Al-MCM-41 molecular sieves. <i>Microporous and Mesoporous Materials</i> , 2005 , 81, 343-355	5.3	24
42	Mercury leaching characteristics of waste treatment residues generated from various sources in Korea. <i>Waste Management</i> , 2013 , 33, 1675-81	8.6	21
41	Surface-modified mesoporous silica with ferrocene derivatives and its ultrasound-triggered functionality. <i>Applied Surface Science</i> , 2008 , 254, 4732-4737	6.7	21
40	A mechanistic model for mercury capture with in situ-generated titania particles: role of water vapor. <i>Journal of the Air and Waste Management Association</i> , 2004 , 54, 149-56	2.4	21
39	Comparison of mesoporous solid acid catalysts in the production of DABCO by cyclization of ethanolamine: I. Synthesis and characterization of mesoporous solid acid catalysts. <i>Microporous and Mesoporous Materials</i> , 2004 , 74, 143-155	5.3	19
38	Preparation and photocatalytic properties of Cr/Ti hollow spheres. <i>Materials Chemistry and Physics</i> , 2008 , 108, 154-159	4.4	15
37	Room temperature synthesis of diphenylmethane over novel mesoporous Lewis acid catalysts. <i>Journal of Molecular Catalysis A</i> , 2006 , 243, 176-182		15
36	Simple and accessible analytical methods for the determination of mercury in soil and coal samples. <i>Chemosphere</i> , 2013 , 93, 9-13	8.4	14
35	Comparison of Mercury Removal Efficiency from a Simulated Exhaust Gas by Several Types of TiO ₂ under Various Light Sources. <i>Chemistry Letters</i> , 2004 , 33, 36-37	1.7	14
34	t-Butylation of toluene with t-butyl alcohol over mesoporous ZnO/MCM-41 molecular sieves. <i>Microporous and Mesoporous Materials</i> , 2005 , 85, 59-74	5.3	14
33	Characterization of activated carbon fiber filters for pressure drop, submicrometer particulate collection, and mercury capture. <i>Journal of the Air and Waste Management Association</i> , 2000 , 50, 922-9	2.4	14
32	The development of iodine based impinger solutions for the efficient capture of Hg ⁰ using direct injection nebulization-inductively coupled plasma mass spectrometry analysis. <i>Environmental Science & Technology</i> , 2001 , 35, 3764-73	10.3	14
31	Removal of mercury ions in a simulated wastewater using functionalized poly(glycidyl methacrylate). <i>Journal of Industrial and Engineering Chemistry</i> , 2017 , 47, 446-450	6.3	13
30	Mercury Analysis of Various Types of Coal Using Acid Extraction and Pyrolysis Methods. <i>Energy & Fuels</i> , 2006 , 20, 2413-2416	4.1	13
29	Mercury recovery from mercury-containing wastes using a vacuum thermal desorption system. <i>Waste Management</i> , 2017 , 60, 546-551	8.6	12
28	Removal of Hg(II) from aquatic environments using activated carbon impregnated with humic acid. <i>Journal of Industrial and Engineering Chemistry</i> , 2016 , 42, 46-52	6.3	12
27	Removal of Pb(II) ions from aqueous solutions using functionalized cryogels. <i>Chemosphere</i> , 2019 , 217, 423-429	8.4	12

26	Pilot-test of the calcium sodium phosphate (CNP) process for the stabilization/solidification of various mercury-contaminated wastes. <i>Chemosphere</i> , 2014 , 117, 374-81	8.4	11
25	Stabilization and solidification of elemental mercury for safe disposal and/or long-term storage. <i>Journal of the Air and Waste Management Association</i> , 2011 , 61, 1057-62	2.4	11
24	Chemoenzymatic synthesis of sugar-containing biocompatible hydrogels: crosslinked poly(beta-methylglucoside acrylate) and poly(beta-methylglucoside methacrylate). <i>Journal of Biomedical Materials Research Part B</i> , 2004 , 71, 497-507		11
23	Hg reactions in the presence of chlorine species: homogeneous gas phase and heterogeneous gas-solid phase. <i>Journal of the Air and Waste Management Association</i> , 2002 , 52, 1316-23	2.4	11
22	Design and production of Hg ⁰ calibrator, Hg ²⁺ calibrator, and Hg ²⁺ to Hg ⁰ converter for a continuous Hg emission monitor. <i>Journal of Industrial and Engineering Chemistry</i> , 2013 , 19, 1560-1565	6.3	10
21	Gas-phase elemental mercury removal in a simulated combustion flue gas using TiO ₂ with fluorescent light. <i>Journal of the Air and Waste Management Association</i> , 2012 , 62, 1208-13	2.4	10
20	Highly selective synthesis of 2,6-bis(4-methylphenyl)pyridine over novel mesoporous solid acid catalysts. <i>Microporous and Mesoporous Materials</i> , 2005 , 85, 52-58	5.3	10
19	Removal of Hg(II) ions from aqueous solution by poly(allylamine-co-methacrylamide-co-dimethylthiourea). <i>Journal of Industrial and Engineering Chemistry</i> , 2020 , 84, 82-86	6.3	10
18	Effects of surfactant/silica and silica/cerium ratios on the characteristics of mesoporous Ce-MCM-41. <i>Journal of Industrial and Engineering Chemistry</i> , 2008 , 14, 261-264	6.3	9
17	Functionalized cellulose to remove surfactants from cosmetic products in wastewater. <i>Carbohydrate Polymers</i> , 2020 , 236, 116010	10.3	8
16	Comparison of mesoporous solid acid catalysts in the production of DABCO by cyclization of ethanolaminell. Synthesis of DABCO over mesoporous solid acid catalysts. <i>Microporous and Mesoporous Materials</i> , 2004 , 74, 157-162	5.3	8
15	Stabilization of l-ascorbic acid in cosmetic emulsions. <i>Journal of Industrial and Engineering Chemistry</i> , 2018 , 57, 193-198	6.3	7
14	Application of a sorbent trap system to gas-phase elemental and oxidized mercury analysis. <i>Chemosphere</i> , 2016 , 154, 293-299	8.4	7
13	Preparation of gold- and chlorine-impregnated bead-type activated carbon for a mercury sorbent trap. <i>Chemosphere</i> , 2016 , 165, 470-477	8.4	6
12	Preparation of quality control materials for the determination of mercury in rice. <i>Food Chemistry</i> , 2014 , 147, 361-6	8.5	5
11	Nanostructured titania membranes with improved thermal stability. <i>Journal of Materials Science</i> , 2005 , 40, 1797-1799	4.3	4
10	Optimization of phenolics and flavonoids extraction from the fruit of <i>Empetrum nigrum</i> var. <i>japonicum</i> from Jeju Island in South Korea. <i>Journal of Industrial and Engineering Chemistry</i> , 2021 , 98, 350-357	6.3	4
9	Survey of the mercury-containing wastes released from various sources in Korea. <i>Journal of Industrial and Engineering Chemistry</i> , 2018 , 61, 288-294	6.3	3

8	pH-responsive hydrogel microparticles as intelligent delivery carriers for Hg^{II} antagonists. <i>AIChE Journal</i> , 2011 , 57, 1919-1925	3.6	3
7	Evaluation of optimal conditions for anionic surfactant removal in wastewater. <i>Chemosphere</i> , 2021 , 263, 128174	8.4	3
6	A simple and time-saving analytical method for the determination of methylmercury in biological samples. <i>Journal of Industrial and Engineering Chemistry</i> , 2016 , 35, 199-204	6.3	2
5	Comparison of mesoporous solid acid catalysts in the production of DABCO by cyclization of ethanolamine. <i>Microporous and Mesoporous Materials</i> , 2004 , 74, 143-155	5.3	1
4	Comparison of mesoporous solid acid catalysts in the production of DABCO by cyclization of ethanolamine: II. Synthesis of DABCO over mesoporous solid acid catalysts. <i>Microporous and Mesoporous Materials</i> , 2004 , 74, 157-162	5.3	1
3	t-Butylation of 1,2-dihydroxybenzene over mesoporous solid acid catalysts. <i>Studies in Surface Science and Catalysis</i> , 2005 , 156, 803-808	1.8	1
2	A novel method for extraction, quantification, and identification of microplastics in CreamType of cosmetic products. <i>Scientific Reports</i> , 2021 , 11, 18074	4.9	1
1	Chemistry of the unusually high uptake and recovery of gas-phase Hg^0 by TiO_2 even under household fluorescent lights. <i>Chemical Engineering Journal Advances</i> , 2021 , 8, 100157	3.6	