

# Tai Gyu Lee

## List of Publications by Year in Descending Order

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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	Optimization of phenolics and flavonoids extraction from the fruit of <i>Empetrum nigrum</i> var. japonicum from Jeju Island in South Korea. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2021</b> , 98, 350-357	6.3	4
78	Evaluation of optimal conditions for anionic surfactant removal in wastewater. <i>Chemosphere</i> , <b>2021</b> , 263, 128174	8.4	3
77	A novel method for extraction, quantification, and identification of microplastics in CreamType of cosmetic products. <i>Scientific Reports</i> , <b>2021</b> , 11, 18074	4.9	1
76	Chemistry of the unusually high uptake and recovery of gas-phase Hg <sup>0</sup> by TiO <sub>2</sub> even under household fluorescent lights. <i>Chemical Engineering Journal Advances</i> , <b>2021</b> , 8, 100157	3.6	
75	Functionalized cellulose to remove surfactants from cosmetic products in wastewater. <i>Carbohydrate Polymers</i> , <b>2020</b> , 236, 116010	10.3	8
74	Removal of Hg(II) ions from aqueous solution by poly(allylamine-co-methacrylamide-co-dimethylthiourea). <i>Journal of Industrial and Engineering Chemistry</i> , <b>2020</b> , 84, 82-86	6.3	10
73	Removal of Pb(II) ions from aqueous solutions using functionalized cryogels. <i>Chemosphere</i> , <b>2019</b> , 217, 423-429	8.4	12
72	Survey of the mercury-containing wastes released from various sources in Korea. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2018</b> , 61, 288-294	6.3	3
71	Stabilization of L-ascorbic acid in cosmetic emulsions. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2018</b> , 57, 193-198	6.3	7
70	Removal of mercury ions in a simulated wastewater using functionalized poly(glycidyl methacrylate). <i>Journal of Industrial and Engineering Chemistry</i> , <b>2017</b> , 47, 446-450	6.3	13
69	Mercury recovery from mercury-containing wastes using a vacuum thermal desorption system. <i>Waste Management</i> , <b>2017</b> , 60, 546-551	8.6	12
68	A simultaneous stabilization and solidification of the top five most toxic heavy metals (Hg, Pb, As, Cr, and Cd). <i>Chemosphere</i> , <b>2017</b> , 178, 479-485	8.4	30
67	A simple and time-saving analytical method for the determination of methylmercury in biological samples. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2016</b> , 35, 199-204	6.3	2
66	Application of a sorbent trap system to gas-phase elemental and oxidized mercury analysis. <i>Chemosphere</i> , <b>2016</b> , 154, 293-299	8.4	7
65	Preparation of gold- and chlorine-impregnated bead-type activated carbon for a mercury sorbent trap. <i>Chemosphere</i> , <b>2016</b> , 165, 470-477	8.4	6
64	Removal of Hg(II) from aquatic environments using activated carbon impregnated with humic acid. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2016</b> , 42, 46-52	6.3	12
63	Preparation of quality control materials for the determination of mercury in rice. <i>Food Chemistry</i> , <b>2014</b> , 147, 361-6	8.5	5

62	Stabilization/solidification of mercury-contaminated waste ash using calcium sodium phosphate (CNP) and magnesium potassium phosphate (MKP) processes. <i>Journal of Hazardous Materials</i> , <b>2014</b> , 278, 474-82	12.8	27
61	Pilot-test of the calcium sodium phosphate (CNP) process for the stabilization/solidification of various mercury-contaminated wastes. <i>Chemosphere</i> , <b>2014</b> , 117, 374-81	8.4	11
60	Simple and accessible analytical methods for the determination of mercury in soil and coal samples. <i>Chemosphere</i> , <b>2013</b> , 93, 9-13	8.4	14
59	Design and production of Hg <sup>0</sup> calibrator, Hg <sup>2+</sup> calibrator, and Hg <sup>2+</sup> to Hg <sup>0</sup> converter for a continuous Hg emission monitor. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2013</b> , 19, 1560-1565	6.3	10
58	Mercury leaching characteristics of waste treatment residues generated from various sources in Korea. <i>Waste Management</i> , <b>2013</b> , 33, 1675-81	8.6	21
57	A pilot-scale TiO <sub>2</sub> photocatalytic system for removing gas-phase elemental mercury at Hg-emitting facilities. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2013</b> , 19, 144-149	6.3	29
56	Estimation of total annual mercury emissions from cement manufacturing facilities in Korea. <i>Atmospheric Environment</i> , <b>2012</b> , 62, 265-271	5.3	29
55	A review of international trends in mercury management and available options for permanent or long-term mercury storage. <i>Journal of Hazardous Materials</i> , <b>2012</b> , 241-242, 1-13	12.8	33
54	The phytochelatin transporters AtABCC1 and AtABCC2 mediate tolerance to cadmium and mercury. <i>Plant Journal</i> , <b>2012</b> , 69, 278-88	6.9	359
53	Gas-phase elemental mercury removal in a simulated combustion flue gas using TiO <sub>2</sub> with fluorescent light. <i>Journal of the Air and Waste Management Association</i> , <b>2012</b> , 62, 1208-13	2.4	10
52	Biosorption of mercury(II) ions from aqueous solution by garlic ( <i>Allium sativum</i> L.) powder. <i>Korean Journal of Chemical Engineering</i> , <b>2011</b> , 28, 1439-1443	2.8	32
51	pH-responsive hydrogel microparticles as intelligent delivery carriers for EMSH antagonists. <i>AIChE Journal</i> , <b>2011</b> , 57, 1919-1925	3.6	3
50	Removal and recovery of mercury from aqueous solution using magnetic silica nanocomposites. <i>Applied Surface Science</i> , <b>2011</b> , 257, 4754-4759	6.7	65
49	Stabilization and solidification of elemental mercury for safe disposal and/or long-term storage. <i>Journal of the Air and Waste Management Association</i> , <b>2011</b> , 61, 1057-62	2.4	11
48	Investigations of performance degradation and mitigation strategies in direct methanol fuel cells. <i>International Journal of Hydrogen Energy</i> , <b>2009</b> , 34, 2043-2051	6.7	54
47	Preparation and photocatalytic properties of Cr/Ti hollow spheres. <i>Materials Chemistry and Physics</i> , <b>2008</b> , 108, 154-159	4.4	15
46	Photocatalytic oxidation of gas-phase elemental mercury by nanotitanosilicate fibers. <i>Chemosphere</i> , <b>2008</b> , 71, 969-74	8.4	30
45	Heterogeneous Mercury Reaction on a Selective Catalytic Reduction (SCR) Catalyst. <i>Catalysis Letters</i> , <b>2008</b> , 121, 219-225	2.8	120

44	Synthesis of mesoporous TiO <sub>2</sub> /Al <sub>2</sub> O <sub>3</sub> composite granules with different sol composition and calcination temperature. <i>Powder Technology</i> , <b>2008</b> , 181, 83-88	5.2	24
43	Impact of cathode channel depth on performance of direct methanol fuel cells. <i>Journal of Power Sources</i> , <b>2008</b> , 183, 226-231	8.9	24
42	Effects of surfactant/silica and silica/cerium ratios on the characteristics of mesoporous Ce-MCM-41. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2008</b> , 14, 261-264	6.3	9
41	Surface-modified mesoporous silica with ferrocene derivatives and its ultrasound-triggered functionality. <i>Applied Surface Science</i> , <b>2008</b> , 254, 4732-4737	6.7	21
40	The effects of sonification and TiO <sub>2</sub> deposition on the micro-characteristics of the thermally treated SiO <sub>2</sub> /TiO <sub>2</sub> spherical core-shell particles for photo-catalysis of methyl orange. <i>Microporous and Mesoporous Materials</i> , <b>2008</b> , 116, 561-568	5.3	75
39	A structured CoB catalyst for hydrogen extraction from NaBH <sub>4</sub> solution. <i>Catalysis Today</i> , <b>2007</b> , 120, 305-310	5.3	181
38	Fuel crossover in direct formic acid fuel cells. <i>Journal of Power Sources</i> , <b>2007</b> , 168, 119-125	8.9	108
37	Photoluminescence of La/Ti mixed oxides prepared using sol-gel process and their pCBA photodecomposition. <i>Journal of Photochemistry and Photobiology A: Chemistry</i> , <b>2007</b> , 185, 156-160	4.7	29
36	Mercury emissions from automobiles using gasoline, diesel, and LPG. <i>Atmospheric Environment</i> , <b>2007</b> , 41, 7547-7552	5.3	63
35	Direct synthesis of well-ordered and unusually reactive MnSBA-15 mesoporous molecular sieves with high manganese content. <i>Journal of Physical Chemistry B</i> , <b>2006</b> , 110, 21793-802	3.4	56
34	Mercury Analysis of Various Types of Coal Using Acid Extraction and Pyrolysis Methods. <i>Energy &amp; Fuels</i> , <b>2006</b> , 20, 2413-2416	4.1	13
33	Structural effect of the in situ generated titania on its ability to oxidize and capture the gas-phase elemental mercury. <i>Chemosphere</i> , <b>2006</b> , 62, 26-33	8.4	25
32	Room temperature synthesis of diphenylmethane over novel mesoporous Lewis acid catalysts. <i>Journal of Molecular Catalysis A</i> , <b>2006</b> , 243, 176-182		15
31	FTIR Studies on Selected Mesoporous Metallosilicate Molecular Sieves. <i>Chemistry Letters</i> , <b>2005</b> , 34, 1290-1291		69
30	t-Butylation of 1,2-dihydroxybenzene over mesoporous solid acid catalysts. <i>Studies in Surface Science and Catalysis</i> , <b>2005</b> , 156, 803-808	1.8	1
29	Highly selective synthesis of 2,6-bis(4-methylphenyl)pyridine over novel mesoporous solid acid catalysts. <i>Microporous and Mesoporous Materials</i> , <b>2005</b> , 85, 52-58	5.3	10
28	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> , <b>2005</b> , 85, 39-51	5.3	28
27	Synthesis and characterization of Mn-MCM-41 and Zr-Mn-MCM-41. <i>Microporous and Mesoporous Materials</i> , <b>2005</b> , 78, 139-149	5.3	90

26	Highly selective synthesis of trans-stilbene oxide over mesoporous Mn-MCM-41 and ZrMn-MCM-41 molecular sieves. <i>Microporous and Mesoporous Materials</i> , <b>2005</b> , 79, 261-268	5.3	26
25	Synthesis of 2-acetyl-6-methoxynaphthalene using mesoporous $\gamma$ -Al-MCM-41 molecular sieves. <i>Microporous and Mesoporous Materials</i> , <b>2005</b> , 81, 343-355	5.3	24
24	Preparation and characterization of mesoporous TiO <sub>2</sub> particles by modified sol-gel method using ionic liquids. <i>Microporous and Mesoporous Materials</i> , <b>2005</b> , 84, 211-217	5.3	87
23	t-Butylation of toluene with t-butyl alcohol over mesoporous ZnAl-MCM-41 molecular sieves. <i>Microporous and Mesoporous Materials</i> , <b>2005</b> , 85, 59-74	5.3	14
22	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> , <b>2005</b> , 286, 44-51	5.1	30
21	Controlled release of lidocaine hydrochloride from the surfactant-doped hybrid xerogels. <i>Journal of Controlled Release</i> , <b>2005</b> , 104, 497-505	11.7	50
20	Nanostructured titania membranes with improved thermal stability. <i>Journal of Materials Science</i> , <b>2005</b> , 40, 1797-1799	4.3	4
19	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> , <b>2004</b> , 54, 149-56	2.4	21
18	Mercury emissions from selected stationary combustion sources in Korea. <i>Science of the Total Environment</i> , <b>2004</b> , 325, 155-61	10.2	33
17	Removal of gas-phase elemental mercury by iodine- and chlorine-impregnated activated carbons. <i>Atmospheric Environment</i> , <b>2004</b> , 38, 4887-4893	5.3	180
16	Evaluation of cellulose-binding domain fused to a lipase for the lipase immobilization. <i>Biotechnology Letters</i> , <b>2004</b> , 26, 603-5	3	30
15	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> , <b>2004</b> , 71, 497-507		11
14	Comparison of mesoporous solid acid catalysts in the production of DABCO by cyclization of ethanolamine. <i>Microporous and Mesoporous Materials</i> , <b>2004</b> , 74, 143-155	5.3	1
13	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> , <b>2004</b> , 74, 157-162	5.3	1
12	Overall Kinetics of Heterogeneous Elemental Mercury Reactions on TiO <sub>2</sub> Sorbent Particles with UV Irradiation. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2004</b> , 43, 1411-1417	3.9	31
11	Enzymatic esterification of beta-methylglucoside with acrylic/methacrylic acid in organic solvents. <i>Journal of Biotechnology</i> , <b>2004</b> , 107, 151-60	3.7	29
10	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> , <b>2004</b> , 74, 143-155	5.3	19
9	Comparison of Mercury Removal Efficiency from a Simulated Exhaust Gas by Several Types of TiO <sub>2</sub> under Various Light Sources. <i>Chemistry Letters</i> , <b>2004</b> , 33, 36-37	1.7	14

8	Comparison of mesoporous solid acid catalysts in the production of DABCO by cyclization of ethanolamine. Synthesis of DABCO over mesoporous solid acid catalysts. <i>Microporous and Mesoporous Materials</i> , <b>2004</b> , 74, 157-162	5.3	8
7	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> , <b>2002</b> , 52, 1316-23	2.4	11
6	Mercury removal from incineration flue gas by organic and inorganic adsorbents. <i>Chemosphere</i> , <b>2002</b> , 47, 907-13	8.4	60
5	Comparison of Hg <sup>0</sup> capture efficiencies of three in situ generated sorbents. <i>AIChE Journal</i> , <b>2001</b> , 47, 954-961	3.6	32
4	The development of iodine based impinger solutions for the efficient capture of Hg <sup>0</sup> using direct injection nebulization-inductively coupled plasma mass spectrometry analysis. <i>Environmental Science &amp; Technology</i> , <b>2001</b> , 35, 3764-73	10.3	14
3	Experimental and theoretical studies of ultra-fine particle behavior in electrostatic precipitators. <i>Journal of Electrostatics</i> , <b>2000</b> , 48, 245-260	1.7	145
2	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> , <b>2000</b> , 50, 922-9	2.4	14
1	Capture of Mercury in Combustion Systems by In Situ Generated Titania Particles with UV Irradiation. <i>Environmental Engineering Science</i> , <b>1998</b> , 15, 137-148	2	72