

# Tsuyoshi Hirajima

## List of Publications by Year in descending order

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116  
papers

3,902  
citations

109137

35  
h-index

149479

56  
g-index

117  
all docs

117  
docs citations

117  
times ranked

3065  
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhancement of chalcopyrite leaching by ferrous ions in acidic ferric sulfate solutions. Hydrometallurgy, 2001, 60, 185-197.	1.8	170
2	A model for ferrous-promoted chalcopyrite leaching. Hydrometallurgy, 2000, 57, 31-38.	1.8	151
3	A new reaction model for the catalytic effect of silver ions on chalcopyrite leaching in sulfuric acid solutions. Hydrometallurgy, 2002, 63, 257-267.	1.8	125
4	Upgrading and dewatering of raw tropical peat by hydrothermal treatment. Fuel, 2010, 89, 635-641.	3.4	125
5	Effect of Mg <sup>2+</sup> and Ca <sup>2+</sup> as divalent seawater cations on the floatability of molybdenite and chalcopyrite. Minerals Engineering, 2016, 96-97, 83-93.	1.8	110
6	Synergistic effect of cupric and ferrous ions on active-passive behavior in anodic dissolution of chalcopyrite in sulfuric acid solutions. Hydrometallurgy, 2004, 74, 103-116.	1.8	108
7	A case of ferrous sulfate addition enhancing chalcopyrite leaching. Hydrometallurgy, 1997, 47, 37-45.	1.8	101
8	Raman characterization of secondary minerals formed during chalcopyrite leaching with Acidithiobacillus ferrooxidans. Hydrometallurgy, 2009, 95, 153-158.	1.8	99
9	Selective flotation of chalcopyrite and molybdenite with H <sub>2</sub> O <sub>2</sub> oxidation. Minerals Engineering, 2017, 100, 83-92.	1.8	91
10	Upgrading of low rank coal and woody biomass mixture by hydrothermal treatment. Fuel, 2011, 90, 2578-2584.	3.4	84
11	Adhesion of Escherichia coli onto quartz, hematite and corundum: Extended DLVO theory and flotation behavior. Colloids and Surfaces B: Biointerfaces, 2009, 74, 140-149.	2.5	82
12	Selective flotation of chalcopyrite and molybdenite with plasma pre-treatment. Minerals Engineering, 2014, 66-68, 102-111.	1.8	82
13	Comparison of effectiveness of citric acid and other acids in leaching of low-grade Indonesian saprolitic ores. Minerals Engineering, 2016, 85, 1-16.	1.8	75
14	Feasibility of an efficient recovery of rare earth-activated phosphors from waste fluorescent lamps through dense-medium centrifugation. Separation and Purification Technology, 2005, 44, 197-204.	3.9	70
15	Spectroscopic study on oxidative dissolution of chalcopyrite, enargite and tennantite at different pH values. Hydrometallurgy, 2010, 100, 144-151.	1.8	69
16	Floatability of rare earth phosphors from waste fluorescent lamps. International Journal of Mineral Processing, 2005, 77, 187-198.	2.6	68
17	Recovery of cenospheres from coal fly ash using a dry separation process: Separation estimation and potential application. International Journal of Mineral Processing, 2010, 95, 18-24.	2.6	68
18	Production of Solid Biofuel from Agricultural Wastes of the Palm Oil Industry by Hydrothermal Treatment. Waste and Biomass Valorization, 2010, 1, 395-405.	1.8	66

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19	Structural factors of biogenic birnessite produced by fungus <i>Paraconiothyrium</i> sp. WL-2 strain affecting sorption of $\text{Co}^{2+}$ . <i>Chemical Geology</i> , 2012, 310-311, 106-113.	1.4	62
20	Effect of natural dolomite calcination temperature on sorption of borate onto calcined products. <i>Microporous and Mesoporous Materials</i> , 2013, 171, 1-8.	2.2	62
21	The effect of hydrothermal dewatering of Pontianak tropical peat on organics in wastewater and gaseous products. <i>Fuel</i> , 2010, 89, 3934-3942.	3.4	59
22	Selective flotation of chalcopyrite and molybdenite using $\text{H}_2\text{O}_2$ oxidation method with the addition of ferrous sulfate. <i>Minerals Engineering</i> , 2018, 122, 312-326.	1.8	59
23	Floatability of molybdenite and chalcopyrite in artificial seawater. <i>Minerals Engineering</i> , 2018, 115, 117-130.	1.8	57
24	Microbial formation of crystalline scorodite for treatment of As(III)-bearing copper refinery process solution using <i>Acidianus brierleyi</i> . <i>Hydrometallurgy</i> , 2014, 143, 34-41.	1.8	51
25	Sorption and speciation of arsenic by zero-valent iron. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2009, 347, 8-17.	2.3	49
26	Sorption characteristics of fluoride on to magnesium oxide-rich phases calcined at different temperatures. <i>Journal of Hazardous Materials</i> , 2011, 191, 240-248.	6.5	44
27	Effects of coexisting metal ions on the redox potential dependence of chalcopyrite leaching in sulfuric acid solutions. <i>Hydrometallurgy</i> , 2007, 87, 1-10.	1.8	42
28	Production of 5-hydroxymethyl Furfural from Sugarcane Bagasse under Hot Compressed Water. <i>Procedia Earth and Planetary Science</i> , 2013, 6, 441-447.	0.6	41
29	Effect of kerosene emulsion in $\text{MgCl}_2$ solution on the kinetics of bubble interactions with molybdenite and chalcopyrite. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 501, 98-113.	2.3	41
30	Effect of Fenton-like oxidation reagent on hydrophobicity and floatability of chalcopyrite and molybdenite. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2018, 554, 34-48.	2.3	41
31	Adsorption of SIP <i>E. coli</i> onto quartz and its applications in froth flotation. <i>Minerals Engineering</i> , 2008, 21, 389-395.	1.8	40
32	Zinc Sorption During Bio-oxidation and Precipitation of Manganese Modifies the Layer Stacking of Biogenic Birnessite. <i>Geomicrobiology Journal</i> , 2013, 30, 829-839.	1.0	39
33	Bio-templated synthesis of lithium manganese oxide microtubes and their application in $\text{Li}^+$ recovery. <i>Journal of Hazardous Materials</i> , 2013, 262, 38-47.	6.5	38
34	Surfactant-modified montmorillonite by benzyloctadecyldimethylammonium chloride for removal of perchlorate. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2015, 481, 616-625.	2.3	37
35	Performance of dry-separation processes in the recovery of cenospheres from fly ash and their implementation in a recovery unit. <i>International Journal of Mineral Processing</i> , 2011, 98, 15-23.	2.6	36
36	Numerical simulation for reactive solute transport of arsenic in permeable reactive barrier column including zero-valent iron. <i>Applied Mathematical Modelling</i> , 2011, 35, 5198-5207.	2.2	36

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37	Alkaline hydrothermal de-ashing and desulfurization of low quality coal and its application to hydrogen-rich gas generation. <i>Energy Conversion and Management</i> , 2011, 52, 762-769.	4.4	36
38	Mechanism of the enhancement of bioleaching of copper from enargite by thermophilic iron-oxidizing archaea with the concomitant precipitation of arsenic. <i>Hydrometallurgy</i> , 2011, 109, 90-96.	1.8	36
39	Jig separation of plastics from scrapped copy machines. <i>International Journal of Mineral Processing</i> , 2005, 76, 67-74.	2.6	35
40	Adhesion of <i>Ferroplasma acidiphilum</i> onto pyrite calculated from the extended DLVO theory using the van Oss-Good-Chaudhury approach. <i>Journal of Colloid and Interface Science</i> , 2010, 349, 594-601.	5.0	35
41	Kinetic Model of Arsenic Sorption onto Zero-Valent Iron (ZVI). <i>Water Quality, Exposure, and Health</i> , 2011, 2, 125-132.	1.5	35
42	Sorption of arsenate on MgAl and MgFe layered double hydroxides derived from calcined dolomite. <i>Journal of Environmental Chemical Engineering</i> , 2015, 3, 1614-1621.	3.3	35
43	Mechanism of boron uptake by hydrocalumite calcined at different temperatures. <i>Journal of Hazardous Materials</i> , 2015, 287, 268-277.	6.5	35
44	Sorption of $H_3BO_3/B(OH)_4^-$ on calcined LDHs including different divalent metals. <i>Journal of Colloid and Interface Science</i> , 2015, 445, 183-194.	5.0	34
45	Effect of calcination temperature on Mg-Al bimetallic oxides as sorbents for the removal of $F^-$ in aqueous solutions. <i>Chemosphere</i> , 2014, 95, 597-603.	4.2	33
46	Effect of $H_2O_2$ and potassium amyl xanthate on separation of enargite and tennantite from chalcopyrite and bornite using flotation. <i>Minerals Engineering</i> , 2020, 152, 106371.	1.8	32
47	Preparation of Coke from Indonesian Lignites by a Sequence of Hydrothermal Treatment, Hot Briquetting, and Carbonization. <i>Energy &amp; Fuels</i> , 2013, 27, 6607-6616.	2.5	31
48	Bioreduction and immobilization of hexavalent chromium by the extremely acidophilic Fe(III)-reducing bacterium <i>Acidocella aromatica</i> strain PFBC. <i>Extremophiles</i> , 2015, 19, 495-503.	0.9	31
49	Simultaneous oxidation and immobilization of arsenite from refinery waste water by thermoacidophilic iron-oxidizing archaeon, <i>Acidianus brierleyi</i> . <i>Minerals Engineering</i> , 2013, 48, 126-134.	1.8	30
50	Bioscorodite crystallization using <i>Acidianus brierleyi</i> : Effects caused by Cu(II) present in As(III)-bearing copper refinery wastewaters. <i>Hydrometallurgy</i> , 2017, 168, 121-126.	1.8	28
51	Inhibitory effect of iron-oxidizing bacteria on ferrous-promoted chalcopyrite leaching. , 1999, 64, 478-483.		27
52	One-step synthesis of layered double hydroxide-intercalated gluconate for removal of borate. <i>Separation and Purification Technology</i> , 2014, 123, 114-123.	3.9	27
53	Sorption of $Co^{2+}$ Ions on the Biogenic Mn Oxide Produced by a Mn-Oxidizing Fungus, <i>Paraconiothyrium sp.</i> WL-2. <i>Materials Transactions</i> , 2008, 49, 605-611.	0.4	26
54	Temperature effect on the sorption of borate by a layered double hydroxide prepared using dolomite as a magnesium source. <i>Chemical Engineering Journal</i> , 2013, 225, 664-672.	6.6	26

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55	Characterization of secondary arsenic-bearing precipitates formed in the bioleaching of enargite by <i>Acidithiobacillus ferrooxidans</i> . <i>Hydrometallurgy</i> , 2010, 104, 424-431.	1.8	25
56	Comparison of atmospheric citric acid leaching kinetics of nickel from different Indonesian saprolitic ores. <i>Hydrometallurgy</i> , 2016, 161, 138-151.	1.8	25
57	Suppression of pyrite oxidation in acid mine drainage by carrier microencapsulation using liquid product of hydrothermal treatment of low-rank coal, and electrochemical behavior of resultant encapsulating coatings. <i>Hydrometallurgy</i> , 2015, 158, 83-93.	1.8	24
58	Immobilization of Mn(II) Ions by a Mn-Oxidizing Fungus <i>Paraconiothyrium</i> sp.-Like Strain at Neutral pHs. <i>Materials Transactions</i> , 2006, 47, 2457-2461.	0.4	23
59	Effect of surfactant molecular structure on perchlorate removal by various organo-montmorillonites. <i>Applied Clay Science</i> , 2015, 114, 212-220.	2.6	23
60	Investigation of the Changes in Hydrogen Bonds During Low-Temperature Pyrolysis of Lignite by Diffuse Reflectance FT-IR Combined with Forms of Water. <i>Industrial &amp; Engineering Chemistry Research</i> , 2015, 54, 8971-8978.	1.8	23
61	Optimization of hexadecylpyridinium-modified montmorillonite for removal of perchlorate based on adsorption mechanisms. <i>Applied Clay Science</i> , 2016, 123, 29-36.	2.6	23
62	Chemical regeneration of magnesium oxide used as a sorbent for fluoride. <i>Separation and Purification Technology</i> , 2012, 98, 24-30.	3.9	22
63	Effects of initial Fe <sup>2+</sup> concentration and pulp density on the bioleaching of Cu from enargite by <i>Acidianus brierleyi</i> . <i>Hydrometallurgy</i> , 2011, 109, 153-160.	1.8	21
64	Effect of Sodium Sulfite on Floatability of Chalcopyrite and Molybdenite. <i>Minerals (Basel)</i> , 2010, 10, 382-392.	0.8	21
65	Sorption of fluoride on partially calcined dolomite. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2013, 435, 56-62.	2.3	20
66	Silicate Covering Layer on Pyrite Surface in the Presence of Silicon&ndash;Catechol Complex for Acid Mine Drainage Prevention. <i>Materials Transactions</i> , 2015, 56, 1733-1741.	0.4	20
67	Immobilization of Arsenic and Manganese in Contaminated Groundwater by Permeable Reactive Barriers Using Zero Valent Iron and Sheep Manure. <i>Materials Transactions</i> , 2008, 49, 2265-2274.	0.4	19
68	Combustion performance of Loy Yang lignite treated using microwave irradiation treatment. <i>Thermochimica Acta</i> , 2016, 642, 81-87.	1.2	19
69	Effect of freeze drying on characteristics of Mg&ndash;Al layered double hydroxides and bimetallic oxide synthesis and implications for fluoride sorption. <i>Applied Clay Science</i> , 2016, 132-133, 460-467.	2.6	19
70	Effects of sodium thiosulphate on chalcopyrite and tennantite: An insight for alternative separation technique. <i>International Journal of Mineral Processing</i> , 2012, 102-103, 116-123.	2.6	18
71	Experimental study on freeze drying of Loy Yang lignite and inhibiting water re-adsorption of dried lignite. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2017, 520, 146-153.	2.3	18
72	Distribution and Transition of Heavy Metals in Mine Tailing Dumps. <i>Materials Transactions</i> , 2002, 43, 2778-2783.	0.4	17

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73	Use of FTIR combined with forms of water to study the changes in hydrogen bonds during low-temperature heating of lignite. <i>Drying Technology</i> , 2016, 34, 185-193.	1.7	17
74	Selective Sorption of $\text{Co}^{2+}$ over $\text{Ni}^{2+}$ Using Biogenic Manganese Oxides. <i>Materials Transactions</i> , 2009, 50, 2643-2648.	0.4	16
75	Effect of pH and diethyl dithiophosphate (DTP) treatment on chalcopyrite and tennantite surfaces observed using atomic force microscopy (AFM). <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2011, 389, 266-273.	2.3	16
76	Comparison between the effect of microwave irradiation and conventional heat treatments on the magnetic properties of chalcopyrite and pyrite. <i>Advanced Powder Technology</i> , 2016, 27, 2424-2431.	2.0	16
77	Removal mechanism of high concentration borate by co-precipitation with hydroxyapatite. <i>Journal of Environmental Chemical Engineering</i> , 2016, 4, 1092-1101.	3.3	16
78	Effect of saw dust on borate removal from groundwater in bench-scale simulation of permeable reactive barriers including magnesium oxide. <i>Journal of Hazardous Materials</i> , 2011, 185, 1440-1447.	6.5	15
79	The Hot Compressed Water Treatment of Solid Waste Material from the Sugar Industry for Valuable Chemical Production. <i>International Journal of Green Energy</i> , 2014, 11, 577-588.	2.1	14
80	Removal mechanism of arsenate by bimetallic and trimetallic hydrocalumites depending on arsenate concentration. <i>Applied Clay Science</i> , 2016, 134, 26-33.	2.6	14
81	Removal of Arsenate in Acid Mine Drainage by a Permeable Reactive Barrier Bearing Granulated Blast Furnace Slag: Column Study. <i>Materials Transactions</i> , 2008, 49, 835-844.	0.4	13
82	Hydrothermal treatment coupled with mechanical expression for Loy Yang lignite dewatering and the microscopic description of the process. <i>Drying Technology</i> , 2016, 34, 1471-1483.	1.7	13
83	Effect of microorganisms on flocculation of quartz. <i>International Journal of Mineral Processing</i> , 2012, 102-103, 107-111.	2.6	12
84	Screening micro-organisms for cadmium absorption from aqueous solution and cadmium absorption properties of <i>Arthrobacter nicotianae</i> . <i>Bioscience, Biotechnology and Biochemistry</i> , 2014, 78, 1791-1796.	0.6	12
85	Biooxidation of Gold-, Silver, and Antimony-Bearing Highly Refractory Polymetallic Sulfide Concentrates, and its Comparison with Abiotic Pretreatment Techniques. <i>Geomicrobiology Journal</i> , 2015, 32, 538-548.	1.0	12
86	Vacuum and atmospheric pressure TGA on an eastern Canadian coal. <i>Fuel</i> , 1986, 65, 844-848.	3.4	11
87	Contribution of boron-specific resins containing N-methylglucamine groups to immobilization of borate/boric acid in a permeable reactive barrier comprising agglomerated MgO. <i>Desalination</i> , 2014, 337, 109-116.	4.0	11
88	Bubble interactions with chalcopyrite and molybdenite surfaces in seawater. <i>Minerals Engineering</i> , 2020, 157, 106536.	1.8	11
89	The Effect of $\text{Mn}^{2+}$ Concentration on Mn Removal by a Sulfate Reducing Bacteria Bioreactor. <i>Materials Transactions</i> , 2004, 45, 2429-2434.	0.4	10
90	Hydrophilicity of <i>Ferroplasma acidiphilum</i> and its effect on the depression of pyrite. <i>Minerals Engineering</i> , 2012, 36-38, 242-247.	1.8	10

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91	Rapid Synthesis of LDHs Using Dolomite as a Magnesium Source and Application to Borate Removal. <i>Materials Transactions</i> , 2015, 56, 224-228.	0.4	10
92	Mn(II)-Oxidizing Activity of <i>Pseudomonas</i> sp. Strain MM1 is Involved in the Formation of Massive Mn Sediments around Sambe Hot Springs in Japan. <i>Materials Transactions</i> , 2013, 54, 2027-2031.	0.4	9
93	Sequential modification of montmorillonite with dimethyl dioctadecyl ammonium chloride and benzyl octadecyl dimethyl ammonium chloride for removal of perchlorate. <i>Microporous and Mesoporous Materials</i> , 2016, 233, 117-124.	2.2	9
94	Influence of Mg components in hydroxylated calcined dolomite to (co-)precipitation of fluoride with apatites. <i>Chemical Engineering Journal</i> , 2016, 285, 487-496.	6.6	9
95	Kinetics of nickel extraction from Indonesian saprolitic ore by citric acid leaching under atmospheric pressure. <i>Mining, Metallurgy and Exploration</i> , 2015, 32, 176-185.	0.4	8
96	Geochemical and Microbiological Analysis of Sambe Hot Springs, Shimane Prefecture, Japan. <i>Resource Geology</i> , 2013, 63, 155-165.	0.3	7
97	Selective Sorption of $Ce^{3+}$ over $La^{3+}$ Ions on Biogenic Manganese Oxides. <i>Advanced Materials Research</i> , 0, 71-73, 633-636.	0.3	6
98	Study of diethyl dithiophosphate adsorption on chalcopyrite and tennantite at varied pHs. <i>Journal of Mining Science</i> , 2011, 47, 695-702.	0.1	6
99	Gravity separation and its effect on CO <sub>2</sub> gasification. <i>Fuel</i> , 2013, 103, 37-41.	3.4	6
100	Effects of hydrothermal treatment coupled with mechanical expression on combustion performance of Loy Yang lignite. <i>Journal of Thermal Analysis and Calorimetry</i> , 2016, 126, 1925-1935.	2.0	6
101	Interfacial effects of MgO in hydroxylated calcined dolomite on the co-precipitation of borates with hydroxyapatite. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2016, 504, 1-10.	2.3	6
102	Catalytic effect of silver on arsenic-containing copper sulfide dissolution in acidic solution. <i>Hydrometallurgy</i> , 2016, 162, 1-8.	1.8	6
103	Effect of Sodium Metabisulfite on Selective Flotation of Chalcopyrite and Molybdenite. <i>Minerals (Basel, Switzerland)</i> , 2021, 11, 1377.	0.8	6
104	Sorption of borate onto layered double hydroxides assembled on filter paper through in situ hydrothermal crystallization. <i>Applied Clay Science</i> , 2014, 88-89, 134-143.	2.6	5
105	Sorption properties of boron on Mg-Al bimetallic oxides calcined at different temperatures. <i>Separation and Purification Technology</i> , 2015, 152, 192-199.	3.9	5
106	Analysis of Heavy Metals in a Tailing Impoundment of Abandoned Mn Mine by Using Two Sequential Extractions. <i>Materials Transactions</i> , 2002, 43, 3189-3194.	0.4	4
107	Identification of Sulfate- and Arsenate-Reducing Bacteria in Sheep Manure as Permeable Reactive Materials after Arsenic Immobilization in Groundwater. <i>Materials Transactions</i> , 2008, 49, 2275-2282.	0.4	4
108	Selenium (Se) Removal from Copper Refinery Wastewater Using a Combination of Zero-Valent Iron (ZVI) and Se(VI)-Reducing Bacterium, <i>Thaurea selenatis</i> . <i>Materials Transactions</i> , 2015, 56, 889-894.	0.4	4

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109	On-line monitoring for agglomeration in an organic liquid. <i>Advanced Powder Technology</i> , 1994, 5, 365-376.	2.0	3
110	Bioleaching of Enargite by Arsenic-Tolerant <i>Acidithiobacillus Ferrooxidans</i> . <i>Advanced Materials Research</i> , 0, 71-73, 485-488.	0.3	3
111	Effect of Hydrothermal Treatment Coupled with Mechanical Compression on Equilibrium Water Content of Loy Yang Lignite and Mechanism. <i>Materials Transactions</i> , 2016, 57, 935-942.	0.4	3
112	The Development of Fine Microgram Powder Electrode System and Its Application in the Analysis of Chalcopyrite Leaching Behavior. <i>Minerals (Basel, Switzerland)</i> , 2016, 6, 103.	0.8	3
113	Synthesis of Biogenic Mn Oxide and its Application as Lithium Ion Sieve. <i>Advanced Materials Research</i> , 2013, 825, 439-442.	0.3	2
114	Effective Utilization of Moso-Bamboo ( <i>Phyllostachys heterocycla</i> ) with Hot-Compressed Water. <i>Green Chemistry and Sustainable Technology</i> , 2014, , 155-170.	0.4	2
115	Sorption of Co Ions on Biogenic Mn Oxides Produced by a Mn-Oxidizing Fungus, <i>Paraconiothyrium</i> sp.-like Strain. <i>Advanced Materials Research</i> , 2007, 20-21, 607-610.	0.3	1
116	Granite Waste as a Raw Material in Ceramic Body Formulations. <i>Advanced Materials Research</i> , 0, 858, 88-95.	0.3	0