

Kouji Yasuda

List of Publications by Year in descending order

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75
papers

1,653
citations

361413

20
h-index

302126

39
g-index

76
all docs

76
docs citations

76
times ranked

691
citing authors

#	ARTICLE	IF	CITATIONS
1	Pinpoint and bulk electrochemical reduction of insulating silicon dioxide to silicon. <i>Nature Materials</i> , 2003, 2, 397-401.	27.5	387
2	Direct electrolytic reduction of solid SiO ₂ in molten CaCl ₂ for the production of solar grade silicon. <i>Electrochimica Acta</i> , 2007, 53, 106-110.	5.2	117
3	Mechanism of Direct Electrolytic Reduction of Solid SiO ₂ to Si in Molten CaCl ₂ . <i>Journal of the Electrochemical Society</i> , 2005, 152, D69.	2.9	88
4	Effect of electrolysis potential on reduction of solid silicon dioxide in molten CaCl ₂ . <i>Journal of Physics and Chemistry of Solids</i> , 2005, 66, 443-447.	4.0	76
5	Thermodynamic analysis and effect of crystallinity for silicon monoxide negative electrode for lithium ion batteries. <i>Journal of Power Sources</i> , 2016, 329, 462-472.	7.8	64
6	Diagrammatic Representation of Direct Electrolytic Reduction of SiO ₂ in Molten CaCl ₂ . <i>Journal of the Electrochemical Society</i> , 2007, 154, E95.	2.9	62
7	Electrochemical formation of Dy-Ni alloys in molten NaCl-KCl-DyCl ₃ . <i>Electrochimica Acta</i> , 2013, 106, 293-300.	5.2	60
8	Silicon Electrodeposition in Water-Soluble KF-KCl Molten Salt: Investigations on the Reduction of Si(IV) Ions. <i>Journal of the Electrochemical Society</i> , 2015, 162, D444-D448.	2.9	56
9	Electrochemical formation of Nd-Ni alloys in molten NaCl-KCl-NdCl ₃ . <i>Electrochimica Acta</i> , 2013, 92, 349-355.	5.2	48
10	Electrolytic Reduction of a Powder-Molded SiO ₂ Pellet in Molten CaCl ₂ and Acceleration of Reduction by Si Addition to the Pellet. <i>Journal of the Electrochemical Society</i> , 2005, 152, D232.	2.9	44
11	Electrochemical Formation of Dy-Ni Alloys in Molten LiF-CaF ₂ -DyF ₃ . <i>Journal of the Electrochemical Society</i> , 2012, 159, E193-E197.	2.9	38
12	Silicon Electrodeposition in Water-Soluble KF-KCl Molten Salt: Optimization of Electrolysis Conditions at 923 K. <i>Journal of the Electrochemical Society</i> , 2016, 163, D95-D99.	2.9	33
13	Electrolytic Reduction of SiO ₂ Granules in Molten CaCl ₂ . <i>Electrochemistry</i> , 2013, 81, 559-565.	1.4	32
14	Electrochemical Formation of Pr-Ni Alloys in LiF-CaF ₂ -PrF ₃ and NaCl-KCl-PrCl ₃ Melts. <i>Journal of the Electrochemical Society</i> , 2014, 161, D3097-D3104.	2.9	31
15	Improving Purity and Process Volume During Direct Electrolytic Reduction of Solid SiO ₂ in Molten CaCl ₂ for the Production of Solar-Grade Silicon. <i>Energy Technology</i> , 2013, 1, 245-252.	3.8	26
16	Editors' Choice—Silicon Electrodeposition in a Water-Soluble KF-KCl Molten Salt: Utilization of SiCl ₄ as Si Source. <i>Journal of the Electrochemical Society</i> , 2017, 164, D67-D71.	2.9	26
17	Solar-grade silicon production by metallothermic reduction. <i>Jom</i> , 2010, 62, 94-101.	1.9	24
18	Processes for Production of Solar-Grade Silicon Using Hydrogen Reduction and/or Thermal Decomposition. <i>Energy Technology</i> , 2014, 2, 141-154.	3.8	24

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19	High purity silicon materials prepared through wet-chemical and electrochemical approaches. <i>Electrochimica Acta</i> , 2015, 179, 512-518.	5.2	22
20	Kinetic Characteristics of Electrochemical Reduction of SiO ₂ Granules in Molten CaCl ₂ . <i>Journal of the Electrochemical Society</i> , 2014, 161, D3116-D3119.	2.9	21
21	Reaction Behavior of Stratified SiO ₂ Granules during Electrochemical Reduction in Molten CaCl ₂ . <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2014, 45, 1337-1344.	2.1	21
22	Selective Formation of Rare-Earth-Nickel Alloys via Electrochemical Reactions in NaCl-KCl Molten Salt. <i>Journal of the Electrochemical Society</i> , 2016, 163, D140-D145.	2.9	20
23	The Role of Granule Size on the Kinetics of Electrochemical Reduction of SiO ₂ Granules in Molten CaCl ₂ . <i>Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science</i> , 2016, 47, 788-797.	2.1	20
24	Electrolytic Production of Silicon Using Liquid Zinc Alloy in Molten CaCl ₂ . <i>Journal of the Electrochemical Society</i> , 2017, 164, H5049-H5056.	2.9	19
25	Electrodeposition of Titanium in a Water-Soluble KF-KCl Molten Salt. <i>Materials Transactions</i> , 2017, 58, 390-394.	1.2	19
26	Anodization of electrodeposited titanium films towards TiO ₂ nanotube layers. <i>Electrochemistry Communications</i> , 2020, 118, 106788.	4.7	19
27	Production Processes of Solar Grade Silicon Based on Metallothermic Reduction. <i>Nippon Kinzoku Gakkaishi/Journal of the Japan Institute of Metals</i> , 2010, 74, 1-9.	0.4	15
28	Silicon Electrodeposition in a Water-Soluble KF-KCl Molten Salt: Effects of Temperature and Current Density. <i>Journal of the Electrochemical Society</i> , 2018, 165, D825-D831.	2.9	13
29	Electrochemical Behavior of Ti(III) Ions in a KF-KCl Eutectic Melt. <i>Electrochemistry</i> , 2018, 86, 99-103.	1.4	13
30	Mechanism of Electrolytic Reduction of SiO ₂ at Liquid Zn Cathode in Molten CaCl ₂ . <i>Journal of the Electrochemical Society</i> , 2019, 166, D162-D167.	2.9	12
31	Electrolytic Reduction of Solid Al ₂ O ₃ to Liquid Al in Molten CaCl ₂ . <i>Journal of the Electrochemical Society</i> , 2018, 165, D83-D89.	2.9	11
32	Optimization of Electrolysis Conditions for Ti Film Electrodeposition from Water-Soluble KF-KCl Molten Salts. <i>Journal of the Electrochemical Society</i> , 2019, 166, D755-D759.	2.9	11
33	In situ synchrotron X-ray diffraction study of the electrochemical reduction of SiO ₂ in molten CaCl ₂ . <i>Electrochemistry Communications</i> , 2020, 115, 106740.	4.7	11
34	Silicon Electrodeposition in a Water-Soluble KF-KCl Molten Salt: Properties of Si Films on Graphite Substrates. <i>Journal of the Electrochemical Society</i> , 2021, 168, 112502.	2.9	11
35	Electrochemical production of silicon. <i>High Temperature Materials and Processes</i> , 2022, 41, 247-278.	1.4	11
36	Production Processes of Solar Grade Silicon by Hydrogen Reduction and/or Thermal Decomposition. <i>Journal of MMIJ</i> , 2010, 126, 115-123.	0.3	10

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37	Editors' Choice "Behaviors of Si, B, Al, and Na during Electrochemical Reduction of Borosilicate Glass in Molten CaCl ₂ . Journal of the Electrochemical Society, 2017, 164, D478-D485.	2.9	9
38	Effect of Si Addition on the Electrochemical Reduction Rate of SiO ₂ Granules in Molten CaCl ₂ . Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2018, 49, 341-348.	2.1	9
39	Electrochemical Behavior of Ti(III) Ions in Molten LiF-KCl: Comparison with the Behavior in Molten KF-KCl. Journal of the Electrochemical Society, 2020, 167, 082502.	2.9	9
40	Raman Analysis and Electrochemical Reduction of Silicate Ions in Molten NaCl-CaCl ₂ . Journal of the Electrochemical Society, 2021, 168, 046515.	2.9	9
41	Cathodic Potential Dependence of Electrochemical Reduction of SiO ₂ Granules in Molten CaCl ₂ . Metallurgical and Materials Transactions E, 2016, 3, 145-155.	0.5	8
42	Electrochemical Dy-Alloying Behaviors of Inconel and Hastelloy in Molten LiF-CaF ₂ -DyF ₃ . Materials Transactions, 2019, 60, 379-385.	1.2	8
43	Electrodeposition of Tungsten from Molten KF-KCl-WO ₃ and CsCl-WO ₃ . Journal of the Electrochemical Society, 2021, 168, 046505.	2.9	8
44	Electrochemical Reduction Behavior of Borosilicate Glass in Molten CaCl ₂ . Journal of the Electrochemical Society, 2016, 163, D622-D627.	2.9	7
45	A New Electrolytic Production Process of Silicon Using Liquid Zn Alloy Cathode in Molten Salt. ECS Transactions, 2016, 75, 17-33.	0.5	7
46	Electrochemical reduction behavior of simplified simulants of vitrified radioactive waste in molten CaCl ₂ . Journal of Nuclear Materials, 2018, 503, 290-303.	2.7	7
47	Purity and Minority Carrier Lifetime in Silicon Produced by Direct Electrolytic Reduction of SiO ₂ in Molten CaCl ₂ . Electrochemistry, 2018, 86, 77-81.	1.4	7
48	Electrochemical Formation of Nd-Ni Alloys in Molten CaCl ₂ -NdCl ₃ . Journal of the Electrochemical Society, 2021, 168, 032506.	2.9	7
49	Electrochemical Dy-alloying behaviors of Ni-based alloys in molten LiF-CaF ₂ -DyF ₃ and LiCl-KCl-DyCl ₃ : Effects of temperature and electrolysis potential. Journal of Alloys and Compounds, 2021, 889, 161605.	5.5	5
50	Electrochemical Formation of Dy-Ni Alloys in Molten CaCl ₂ -DyCl ₃ . Journal of the Electrochemical Society, 2020, 167, 142504.	2.9	5
51	Direct Electrolytic Reduction of Amorphous SiO ₂ ; Powder Refined from Diatomaceous Earth. Transactions of the Materials Research Society of Japan, 2010, 35, 47-49.	0.2	5
52	Electrochemical reduction behavior of vitrified nuclear waste simulant in molten CaCl ₂ . Journal of Nuclear Materials, 2021, 543, 152578.	2.7	4
53	Silicon Refining by Solidification from Liquid Si-Zn Alloy and Floating Zone Method. Materials Transactions, 2021, 62, 403-411.	1.2	4
54	Dissolution Behavior of SiO ₂ and Electrochemical Reduction of Dissolved SiO ₂ in Molten Chlorides. ECS Transactions, 2020, 98, 215-222.	0.5	4

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55	Electrochemical Dy-Alloying Behaviors of Ni-Based Alloys in Molten LiF-CaF ₂ -DyF ₃ ; Effects of Constituent Elements. Materials Transactions, 2020, 61, 2329-2335.	1.2	4
56	Oxidative Dissolution of Tungsten Metal in Na ₂ CO ₃ under Ar-O ₂ -CO ₂ Atmosphere. Journal of the Electrochemical Society, 2020, 167, 131501.	2.9	4
57	Activity Report on Information-Gathering of Database Literatures for Molten Salts. Electrochemistry, 2020, 88, 243-252.	1.4	2
58	Electrodeposition of Si from Silicate Ions at Graphite and Liquid Zn Electrodes in Molten CaCl ₂ . Journal of the Electrochemical Society, 2022, 169, 052506.	2.9	2
59	Optimization of Electrolysis Conditions for Ti Film Electrodeposition from LiF-LiCl Eutectic Molten Salt. ECS Transactions, 2020, 98, 393-400.	0.5	1
60	Electrodeposition of Crystalline Silicon Films in Molten KF-KCl-K ₂ SiF ₆ for Photovoltaic Applications. ECS Meeting Abstracts, 2020, MA2020-02, 2979-2979.	0.0	1
61	Electrodeposition of Tungsten from Molten KF-KCl-WO ₃ and Cs-CsCl-WO ₃ . ECS Transactions, 2020, 98, 189-198.	0.5	1
62	Highly Efficient and Precise Electrolysis Separation of Dysprosium from Neodymium for Magnet Scrap Recycling in Molten Salt. ACS Sustainable Chemistry and Engineering, 2022, 10, 9225-9231.	6.7	1
63	Recycle of Tungsten from Cemented Carbide Tools Utilizing Molten Carbonates. Denki Kagaku, 2021, 89, 21-26.	0.0	0
64	(Invited) Electrodeposition of Si in Cs-CsCl Eutectic Melt. ECS Meeting Abstracts, 2021, MA2021-01, 920-920.	0.0	0
65	Thermodynamic Properties of Ni-Dy Intermetallic Compounds Measured Electrochemically in Molten CaCl ₂ -DyCl ₃ . Journal of the Electrochemical Society, 0, , .	2.9	0
66	Electrodeposition of Dense Tungsten Films from Molten KF-KCl-WO ₃ and CsF-CsCl-WO ₃ . ECS Meeting Abstracts, 2020, MA2020-01, 1176-1176.	0.0	0
67	Thermodynamic Properties of Ni-Nd Intermetallic Compounds Measured Electrochemically in Molten CaCl ₂ -NdCl ₃ . Journal of the Electrochemical Society, 0, , .	2.9	0
68	(Invited) A Novel Electrochemical Recycling Method for Rare Earth Metals from Scrap Magnets Using Molten Salt Electrolysis and Alloy Diaphragms. ECS Meeting Abstracts, 2021, MA2021-02, 1777-1777.	0.0	0
69	Electrodeposition of Tungsten from Molten KF-KCl-WO ₃ and Cs-CsCl-WO ₃ . ECS Meeting Abstracts, 2020, MA2020-02, 2988-2988.	0.0	0
70	Effect of Temperature on Electrodeposition of Ti in LiF-LiCl Eutectic Melt. ECS Meeting Abstracts, 2020, MA2020-02, 2990-2990.	0.0	0
71	Optimization of Electrolysis Conditions for Ti Film Electrodeposition from LiF-LiCl Eutectic Molten Salt. ECS Meeting Abstracts, 2020, MA2020-02, 2977-2977.	0.0	0
72	Electrochemical Formation of RE-Ni Alloys (RE=Nd, Dy) in Molten CaCl ₂ -RECl ₃ . ECS Meeting Abstracts, 2020, MA2020-02, 2926-2926.	0.0	0

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73	Dissolution Behavior of SiO ₂ and Electrochemical Reduction of Dissolved SiO ₂ in Molten Chlorides. ECS Meeting Abstracts, 2020, MA2020-02, 3000-3000.	0.0	0
74	Effect of Temperature on Grain Growth during Ti Electrodeposition in LiF-LiCl Eutectic Melt. ECS Meeting Abstracts, 2022, MA2022-01, 1197-1197.	0.0	0
75	(Invited) Effect of Temperature on the Crystal Structure and Surface Morphology of W Films Electrodeposited from CsF-CsCl Eutectic Melt. ECS Meeting Abstracts, 2022, MA2022-01, 1195-1195.	0.0	0