Shoichi Matsuda

List of Publications by Year
in descending order

34 papers	948 citations	394421 19 h-index	454955 30 g-index
37 all docs	37 docs citations	37 times ranked	1479 citing authors

#	ARTICLE	IF	CITATIONS
1	Insulative Microfiber 3D Matrix as a Host Material Minimizing Volume Change of the Anode of Li Metal Batteries. ACS Energy Letters, 2017, 2, 924-929.	17.4	95
2	Dynamic changes in charge-transfer resistance at Li metal/Li7La3Zr2O12 interfaces during electrochemical Li dissolution/deposition cycles. Journal of Power Sources, 2018, 376, 147-151.	7.8	95
3	Lithium-metal deposition/dissolution within internal space of CNT 3D matrix results in prolonged cycle of lithium-metal negative electrode. Carbon, 2017, 119, 119-123.	10.3	67
4	Efficient Li₂O₂ Formation via Aprotic Oxygen Reduction Reaction Mediated by Quinone Derivatives. Journal of Physical Chemistry C, 2014, 118, 18397-18400.	3.1	62
5	Redoxâ€Responsive Switching in Bacterial Respiratory Pathways Involving Extracellular Electron Transfer. ChemSusChem, 2010, 3, 1253-1256.	6.8	49
6	Transition Metal Complexes with Macrocyclic Ligands Serve as Efficient Electrocatalysts for Aprotic Oxygen Evolution on Li2O2. Journal of Physical Chemistry C, 2014, 118, 28435-28439.	3.1	41
7	Cobalt phthalocyanine analogs as soluble catalysts that improve the charging performance of Li-O2 batteries. Chemical Physics Letters, 2015, 620, 78-81.	2.6	39
8	Negative Faradaic Resistance in Extracellular Electron Transfer by Anode-Respiring <i>Geobacter sulfurreducens</i> Cells. Environmental Science & Technology, 2011, 45, 10163-10169.	10.0	37
9	Carbon-black-based self-standing porous electrode for 500 Wh/kg rechargeable lithium-oxygen batteries. Cell Reports Physical Science, 2021, 2, 100506.	5.6	35
10	Effects of contaminant water on coulombic efficiency of lithium deposition/dissolution reactions in tetraglyme-based electrolytes. Journal of Power Sources, 2017, 350, 73-79.	7.8	34
11	Flavins Secreted by Bacterial Cells of <i>Shewanella</i> Catalyze Cathodic Oxygen Reduction. ChemSusChem, 2012, 5, 1054-1058.	6.8	33
12	Electrochemical impedance analysis of the Li/Au-Li7La3Zr2O12 interface during Li dissolution/deposition cycles: Effect of pre-coating Li7La3Zr2O12 with Au. Journal of Electroanalytical Chemistry, 2019, 835, 143-149.	3.8	33
13	High-throughput combinatorial screening of multi-component electrolyte additives to improve the performance of Li metal secondary batteries. Scientific Reports, 2019, 9, 6211.	3.3	32
14	Potassium Ions Promote Solution-Route Li₂O₂ Formation in the Positive Electrode Reaction of Liâ€“O₂ Batteries. Journal of Physical Chemistry Letters, 2017, 8, 1142-1146.	4.6	30
15	Electrochemical Gating of Tricarboxylic Acid Cycle in Electricity-Producing Bacterial Cells of Shewanella. PLoS ONE, 2013, 8, e72901.	2.5	29
16	Regulation of the Cyanobacterial Circadian Clock by Electrochemically Controlled Extracellular Electron Transfer. Angewandte Chemie - International Edition, 2014, 53, 2208-2211.	13.8	27
17	Criteria for evaluating lithiumâ€“air batteries in academia to correctly predict their practical performance in industry. Materials Horizons, 2022, 9, 856-863.	12.2	26
18	Improved Energy Capacity of Aprotic Liâ€“O₂ Batteries by Forming Cl-Incorporated Li₂O₂ as the Discharge Product. Journal of Physical Chemistry C, 2016, 120, 13360-13365.	3.1	25

#	Article	IF	Citations
19	Effect of Electrolyte Filling Technology on the Performance of Porous Carbon Electrode-Based Lithium-Oxygen Batteries. ACS Applied Energy Materials, 2021, 4, 2563-2569.	5.1	23
20	Material balance in the O₂ electrode of Liâ€“O₂ cells with a porous carbon electrode and TEGDME-based electrolytes. RSC Advances, 2020, 10, 42971-42982.	3.6	20
21	Improved charging performance of Liâ€“O2 batteries by forming Ba-incorporated Li2O2 as the discharge product. Journal of Power Sources, 2017, 353, 138-143.	7.8	15
22	Data-driven automated robotic experiments accelerate discovery of multi-component electrolyte for rechargeable Liâ€“O2 batteries. Cell Reports Physical Science, 2022, 3, 100832.	5.6	14
23	Extracellular Electron Transfer of a Highly Adhesive and Metabolically Versatile Bacterium. ChemPhysChem, 2013, 14, 2407-2412.	2.1	13
24	The effect of electrical conductivity on lithium metal deposition in 3DÂcarbon nanofiber matrices. Carbon, 2019, 154, 370-374.	10.3	13
25	Enhanced energy capacity of lithium-oxygen batteries with ionic liquid electrolytes by addition of ammonium ions. Journal of Power Sources, 2017, 356, 12-17.	7.8	12
26	Lithium-Ion-Conducting Ceramics-Coated Separator for Stable Operation of Lithium Metal-Based Rechargeable Batteries. Materials, 2022, 15, 322.	2.9	9
27	Self-standing porous carbon electrodes for lithiumâ€“oxygen batteries under lean electrolyte and high areal capacity conditions. Materials Advances, 2022, 3, 3536-3544.	5.4	8
28	<i>N</i>,<i>N</i>-Dimethylethanesulfonamide as an Electrolyte Solvent Stable for the Positive Electrode Reaction of Aprotic Liâ€“O₂ Batteries. ACS Applied Energy Materials, 2022, 5, 4404-4412.	5.1	7
29	Potential and Cell Density Dependences of Extracellular Electron Transfer of Anode-Respiring <i>Geobacter sulfurreducens</i> Cells. Electrochemistry, 2012, 80, 330-333.	1.4	6
30	Effect of Confining Pressure on the Li/Li₇La₃Zr₂O₁₂ Interface during Li Dissolution/Deposition Cycles. ACS Applied Energy Materials, 2020, 3, 11113-11118.	5.1	6
31	Tunable and Well-Defined Bimodal Porous Model Electrodes for Revealing Multiscale Structural Effects in the Nonaqueous Liâ€“O₂ Electrode Process. Journal of Physical Chemistry C, 2021, 125, 1403-1413.	3.1	6
32	Highly Efficient Oxygen Evolution Reaction in Rechargeable Lithiumâ€“Oxygen Batteries with Triethylphosphate-Based Electrolytes. Journal of Physical Chemistry C, 2020, 124, 25784-25789.	3.1	3
33	Lithium-Air Batteries. , 2021, , .		1
34	Identifying the Performance Limiters in High Areal-Capacity Liâˆ’Oxygen Battery at Subzero Temperatures. ACS Applied Energy Materials, 2021, 4, 4277-4283.	5.1	1