

# Masaru Yao

## List of Publications by Year in descending order

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58  
papers

1,904  
citations

304743

22  
h-index

265206

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59  
all docs

59  
docs citations

59  
times ranked

2137  
citing authors

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 1  | Donor-Acceptor Triads Composed of Tetrathiafulvalene and Benzoquinone Fused by Benzene-Spacers: Application to the Positive Electrode Materials for Use in Rechargeable Batteries. <i>Bulletin of the Chemical Society of Japan</i> , 2021, 94, 44-52. | 3.2 | 11        |
| 2  | Synthesis, Structure, and Electrochemical Properties of Extended Tetrathiafulvalene Dimers Linked by Flexible Butylene Chain. <i>Bulletin of the Chemical Society of Japan</i> , 2021, 94, 1059-1065.  | 3.2 | 6         |
| 3  | A Tris-fused Tetrathiafulvalene Analog Composed of an Anthraquinoid- and Two Vinyl-extended Tetrathiafulvalenes. <i>Chemistry Letters</i> , 2021, 50, 1164-1168.   | 1.3 | 5         |
| 4  | Synthesis and Properties of Fused Extended Tetrathiafulvalene Donors with Dithienylmethylene Spacer and Application to Organic Rechargeable Batteries. <i>Bulletin of the Chemical Society of Japan</i> , 2021, 94, 1940-1947.                         | 3.2 | 6         |
| 5  | Improved gravimetric energy density and cycle life in organic lithium-ion batteries with naphthazarin-based electrode materials. <i>Communications Materials</i> , 2020, 1, .  | 6.9 | 12        |
| 6  | Improvement of the Battery Performance of Indigo, an Organic Electrode Material, Using PEDOT/PSS with Sorbitol. <i>ACS Omega</i> , 2020, 5, 18565-18572.   | 3.5 | 13        |
| 7  | Analytical Measurements to Elucidate Structural Behavior of 2,5-Dimethoxy-1,4-benzoquinone During Charge and Discharge. <i>ChemSusChem</i> , 2020, 13, 2354-2363.  | 6.8 | 5         |
| 8  | Viologen Derivatives Extended with Aromatic Rings Acting as Negative Electrode Materials for Use in Rechargeable Molecular Ion Batteries. <i>ChemSusChem</i> , 2020, 13, 2379-2385.  | 6.8 | 11        |
| 9  | Fused Tetrathiafulvalene and Benzoquinone Triads: Organic Positive-Electrode Materials Based on a Dual Redox System. <i>ChemSusChem</i> , 2020, 13, 2312-2320.   | 6.8 | 23        |
| 10 | A Tris-fused Donor System Composed of Two Tetrathiafulvalenes and an Extended Tetrathiafulvalene with an Anthraquinoid Spacer. <i>Chemistry Letters</i> , 2019, 48, 1507-1510.   | 1.3 | 13        |
| 11 | Conductive polymer binder and separator for high energy density lithium organic battery. <i>MRS Communications</i> , 2019, 9, 979-984.   | 1.8 | 7         |
| 12 | Organic positive-electrode material utilizing both an anion and cation: a benzoquinone-tetrathiafulvalene triad molecule, Q-TTF-Q, for rechargeable Li, Na, and K batteries. <i>New Journal of Chemistry</i> , 2019, 43, 1626-1631.                    | 2.8 | 38        |
| 13 | Anthraquinone-Based Oligomer as a Long Cycle-Life Organic Electrode Material for Use in Rechargeable Batteries. <i>ChemPhysChem</i> , 2019, 20, 967-971.   | 2.1 | 22        |
| 14 | Tris-Fused Tetrathiafulvalenes Extended with an Anthraquinoid Spacer as New Positive Electrode Materials for Rechargeable Batteries. <i>European Journal of Organic Chemistry</i> , 2019, 2019, 2725-2728.   | 2.4 | 17        |
| 15 | Synthesis and Properties of [3]Dendralenes with Redox-active 1,3-Dithiol-2-ylidenes and Dicyanomethylidene and Application to Rechargeable Batteries. <i>Chemistry Letters</i> , 2018, 47, 1176-1179.  | 1.3 | 12        |
| 16 | Fused Donor-Acceptor Triads Composed of Tetrathiafulvalene and Benzoquinone Derivatives as the Positive Electrode Materials for Rechargeable Lithium and Sodium Batteries. <i>Chemistry Letters</i> , 2017, 46, 368-370.                               | 1.3 | 16        |
| 17 | Rechargeable organic batteries using chloro-substituted naphthazarin derivatives as positive electrode materials. <i>Journal of Materials Science</i> , 2017, 52, 12401-12408.   | 3.7 | 16        |
| 18 | Polycyclic Quinone Fused by a Sulfur-containing Ring as an Organic Positive-electrode Material for Use in Rechargeable Lithium Batteries. <i>Energy Procedia</i> , 2016, 89, 222-230.  | 1.8 | 18        |

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|----|---|------|-----------|
| 19 | Improving the Cycle-life of Naphthoquinone-based Active Materials by Their Polymerization for Rechargeable Organic Batteries. <i>Energy Procedia</i> , 2016, 89, 213-221.   | 1.8  | 5         |
| 20 | A New Bio-based Battery Material: Effect of Rate of Anthraquinone Skeleton Incorporation into Polyglycidol on Battery Performance. <i>Energy Procedia</i> , 2016, 89, 207-212.  | 1.8  | 1         |
| 21 | Characterization of a Rh( $\pi$ -porphyrin)CO complex: its structure and reactivity with an electron acceptor. <i>Dalton Transactions</i> , 2015, 44, 13823-13827.  | 3.3  | 11        |
| 22 | Molecular ion battery: a rechargeable system without using any elemental ions as a charge carrier. <i>Scientific Reports</i> , 2015, 5, 10962.  | 3.3  | 53        |
| 23 | Sulfone-Based Electrolyte Solutions for Rechargeable Magnesium Batteries Using 2,5-Dimethoxy-1,4-benzoquinone Positive Electrode. <i>Journal of the Electrochemical Society</i> , 2014, 161, A1315-A1320.                                     | 2.9  | 47        |
| 24 | Long Cycle-life Organic Electrode Material based on an Ionic Naphthoquinone Derivative for Rechargeable Batteries. <i>Energy Procedia</i> , 2014, 56, 228-236.  | 1.8  | 15        |
| 25 | A pentakis-fused tetrathiafulvalene system extended by cyclohexene-1,4-diylidenes: a new positive electrode material for rechargeable batteries utilizing ten electron redox. <i>Journal of Materials Chemistry A</i> , 2014, 2, 6747.        | 10.3 | 66        |
| 26 | 3,4,5-trimethoxy-1,4-benzoquinone as a positive electrode material for rechargeable organic batteries. <i>Electrochemistry</i> , 2014, 82, 682-687.   | 1.8  | 15        |
| 27 | Indigo carmine: An organic crystal as a positive-electrode material for rechargeable sodium batteries. <i>Scientific Reports</i> , 2014, 4, 3650.   | 3.3  | 109       |
| 28 | Dialkoxybenzoquinone-type Active Materials for Rechargeable Lithium Batteries: The Effect of the Alkoxy Group Length on the Cycle-stability. <i>Energy Procedia</i> , 2013, 34, 880-887.  | 1.8  | 19        |
| 29 | Reduction of redox mediators by CO in the presence of a Co porphyrin: Implication for electrochemical cells powered by CO. <i>Journal of Power Sources</i> , 2013, 235, 105-110.  | 7.8  | 6         |
| 30 | A Tris-fused Tetrathiafulvalene Extended with Cyclohexene-1,4-diylidene: A New Positive Electrode Material for Organic Rechargeable Batteries. <i>Chemistry Letters</i> , 2013, 42, 1556-1558.  | 1.3  | 33        |
| 31 | Mg <sup>2+</sup> Storage in Organic Positive-electrode Active Material Based on 2,5-Dimethoxy-1,4-benzoquinone. <i>Chemistry Letters</i> , 2012, 41, 1594-1596.   | 1.3  | 71        |
| 32 | CO electro-oxidation by carbon-supported Rh tetraphenylporphyrins that have o-methyl groups on meso-phenyl substituents. <i>Journal of Electroanalytical Chemistry</i> , 2012, 668, 60-65.  | 3.8  | 9         |
| 33 | Electrocatalytic oxidation of alcohols by a carbon-supported Rh porphyrin. <i>Chemical Communications</i> , 2012, 48, 4353.   | 4.1  | 46        |
| 34 | Na-ion capacitor using sodium pre-doped hard carbon and activated carbon. <i>Electrochimica Acta</i> , 2012, 76, 320-325.   | 5.2  | 104       |
| 35 | Redox active poly(N-vinylcarbazole) for use in rechargeable lithium batteries. <i>Journal of Power Sources</i> , 2012, 202, 364-368.  | 7.8  | 82        |
| 36 | Crystalline polycyclic quinone derivatives as organic positive-electrode materials for use in rechargeable lithium batteries. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2012, 177, 483-487. | 3.5  | 99        |

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|----|---|-----|-----------|
| 37 | A two-compartment cell for using soluble benzoquinone derivatives as active materials in lithium secondary batteries. <i>Electrochimica Acta</i> , 2011, 56, 10145-10150.               | 5.2 | 117       |
| 38 | Reversible air electrodes integrated with an anion-exchange membrane for secondary air batteries. <i>Journal of Power Sources</i> , 2011, 196, 808-813.                                 | 7.8 | 47        |
| 39 | Gallium (III) sulfide as an active material in lithium secondary batteries. <i>Journal of Power Sources</i> , 2011, 196, 5631-5636.   | 7.8 | 36        |
| 40 | Metallocomplex-based borohydride electro-oxidation catalysts. <i>Catalysis Today</i> , 2011, 170, 141-147.  | 4.4 | 9         |
| 41 | CO Electro-oxidation by Rh Disulfo-deuteroporphyrin, and Its Mitigation Effect on CO Poisoning of PEMFC Anode. <i>Electrochemical and Solid-State Letters</i> , 2011, 14, B23.          | 2.2 | 19        |
| 42 | Indigo Dye as a Positive-electrode Material for Rechargeable Lithium Batteries. <i>Chemistry Letters</i> , 2010, 39, 950-952.   | 1.3 | 81        |
| 43 | High-capacity organic positive-electrode material based on a benzoquinone derivative for use in rechargeable lithium batteries. <i>Journal of Power Sources</i> , 2010, 195, 8336-8340. | 7.8 | 220       |
| 44 | Long cycle-life LiFePO <sub>4</sub> /Cu-Sn lithium ion battery using foam-type three-dimensional current collector. <i>Journal of Power Sources</i> , 2010, 195, 2077-2081.             | 7.8 | 61        |
| 45 | Electrochemical characteristics of aluminum sulfide for use in lithium secondary batteries. <i>Journal of Power Sources</i> , 2010, 195, 8327-8330.                                     | 7.8 | 21        |
| 46 | Organic Positive-Electrode Materials Based on Dialkoxybenzoquinone Derivatives for Use in Rechargeable Lithium Batteries. <i>ECS Transactions</i> , 2010, 28, 3-10.                     | 0.5 | 40        |
| 47 | New-Concept CO-Tolerant Anode Catalysts Using a Rh Porphyrin-Deposited PtRu/C. <i>Journal of Physical Chemistry C</i> , 2010, 114, 21856-21860.   | 3.1 | 30        |
| 48 | High-Capacity Electric Double Layer Capacitor Using Three-Dimensional Porous Current Collector. <i>Electrochemical and Solid-State Letters</i> , 2007, 10, A245.                        | 2.2 | 10        |
| 49 | Influence of Nickel Foam Pore Structure on the High-Rate Capability of Nickel/Metal-Hydride Batteries. <i>Journal of the Electrochemical Society</i> , 2007, 154, A709.                 | 2.9 | 10        |
| 50 | Nickel Substrate Having Three-Dimensional Micronetwork Structure for High-Power Nickel/Metal-Hydride Battery. <i>Electrochemical and Solid-State Letters</i> , 2007, 10, A56.           | 2.2 | 14        |
| 51 | High-power nickel/metal-hydride battery using new micronetwork substrate: Discharge rate capability and cycle-life performance. <i>Journal of Power Sources</i> , 2007, 171, 1033-1039. | 7.8 | 24        |
| 52 | LiFePO <sub>4</sub> -based electrode using micro-porous current collector for high power lithium ion battery. <i>Journal of Power Sources</i> , 2007, 173, 545-549.                     | 7.8 | 69        |
| 53 | Synthesis and magnetic properties of 2,2,4- and 2,2,6-triphenyl-1,2-dihydroquinoline-N-oxyl derivatives. <i>Polyhedron</i> , 2005, 24, 2828-2834.                                       | 2.2 | 8         |
| 54 | Novel aromatic N-oxyl radical based on the benzo[g]quinoline skeleton: synthesis and intermolecular ferromagnetic interaction. <i>Chemical Physics Letters</i> , 2005, 402, 11-16.      | 2.6 | 19        |

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|----|--|-----|-----------|
| 55 | Amphiphilic meso-Disubstituted Porphyrins: Synthesis and the Effect of the Hydrophilic Group on Absorption Spectra at the Air/Water Interface. <i>Langmuir</i> , 2005, 21, 595-601.                      | 3.5 | 15        |
| 56 | Formation of a One-Dimensional Stacking Structure of $\pi$ -Conjugated Nitroxyl Radical Bearing a 1,2,5-Thiadiazole Ring and Its Magnetic Property. <i>Crystal Growth and Design</i> , 2005, 5, 413-417. | 3.0 | 16        |
| 57 | Synthesis and physicochemical properties of some 5,15-diarylporphyrin derivatives. <i>Polyhedron</i> , 2003, 22, 2281-2285.  | 2.2 | 7         |
| 58 | Effect of hydrophilic group on absorption spectra of meso-disubstituted porphyrin LB films. <i>Synthetic Metals</i> , 2003, 137, 917-918.  | 3.9 | 3         |