Kazuhiro Marumoto

List of Publications by Year
in descending order

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77	1,932	304368 22	276539 41
papers	citations	h-index	g-index

82	82	82	2083
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Direct Evidence of the Internal Deterioration Mechanism due to Molecular Chain Ends in Polymer Solar Cells by Operando Spin Detection. ACS Applied Polymer Materials, 2022, 4, 607-617.	2.0	6
2	Optimized carrier extraction at interfaces for 23.6% efficient tinâ€“lead perovskite solar cells. Energy and Environmental Science, 2022, 15, 2096-2107.	15.6	172
3	Stability improvement mechanism due to less charge accumulation in ternary polymer solar cells. Npj Flexible Electronics, 2022, 6, .	5.1	12
4	Spin-states in MoS2 thin-film transistors distinguished by operando electron spin resonance. Communications Materials, 2021, 2, .	2.9	7
5	Graphene oxide @ nickel phosphate nanocomposites for photocatalytic hydrogen production. Chemical Engineering Journal Advances, 2021, 6, 100105.	2.4	7
6	Analysis of Degradation by Various Spectroscopic Methods. , 2021, , 1-11.		0
7	Analyses of Charge Accumulation of PTzBT Ternary Polymer Solar Cells Using ESR Spectroscopy. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2021, 34, 351-356.	0.1	3
8	Effect of Passivation on the Interface between Perovskite and Donorâ€“Acceptor Copolymer-based Hole-transport Layer in Perovskite Solar Cells. Chemistry Letters, 2020, 49, 1341-1344.	0.7	6
9	Operando direct observation of spin-states and charge-trappings of blue light-emitting-diode materials in thin-film devices. Scientific Reports, 2020, 10, 18800.	1.6	5
10	Deterioration mechanism of perovskite solar cells by operando observation of spin states. Communications Materials, 2020, 1, .	2.9	21
11	Direct Evidence of Less Charge Accumulation in Highly Durable Polymer Solar Cells Using Operando Electron Spin Resonance Spectroscopy. ACS Applied Energy Materials, 2020, 3, 2028-2036.	2.5	11
12	Facile light-initiated radical generation from 4-substituted pyridine under ambient conditions. Chemical Communications, 2020, 56, 6937-6940.	2.2	4
13	Synthesis and color development mechanism of Li₂CoTi₃O₈ cyan pigments: effect of synthetic temperature. Journal of the Ceramic Society of Japan, 2020, 128, 260-266.	0.5	1
14	Analyses of PTzNTz Polymer Solar Cells Using ESR Spectroscopy. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2020, 33, 97-102.	0.1	6
15	Molecular Oriented Charge Accumulation in High-Efficiency Polymer Solar Cells as Revealed by Operando Spin Analysis. ACS Applied Materials & Interfaces, 2019, 11, 31129-31138.	4.0	19
16	Boosting thermoelectric power factor of free-standing Poly(3,4ethylenedioxythiophene):polystyrenesulphonate films by incorporation of bismuth antimony telluride nanostructures. Journal of Power Sources, 2019, 435, 226758.	4.0	21
17	Transient Electron Spin Polarization Imaging of Heterogeneous Charge-Separation Geometries at Bulk-Heterojunction Interfaces in Organic Solar Cells. Journal of Physical Chemistry C, 2019, 123, 13472-13481.	1.5	20
18	Motional narrowing under Markovian and non-Markovian hopping transitions in inhomogeneous broadened absorption line shape. Physical Review E, 2019, 99, 052115.	0.8	1

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19	Direct observation of charge transfer at the interface between PEDOT:PSS and perovskite layers. Applied Physics Express, 2019, 12, 041002.	1.1	12
20	Scalable free-standing polypyrrole films for wrist-band type flexible thermoelectric power generator. Energy, 2019, 176, 853-860.	4.5	27
21	Electrically Controllable Spin States of Holes and Electrons in Organic Semiconductor Materials. ACS Applied Electronic Materials, 2019, 1, 2522-2530.	2.0	6
22	Elucidating the mechanisms behind thermoelectric power factor enhancement of poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) flexible films. Vacuum, 2018, 153, 238-247.	1.6	14
23	Direct Observation of Radical States and the Correlation with Performance Degradation in Organic Lightâ€Emitting Diodes During Device Operation. Physica Status Solidi (A) Applications and Materials Science, 2018, 215, 1700731.	0.8	15
24	Analysis of the Size of Two-Component C₆₀-C₇₀ Fullerene Whiskers. Transactions of the Materials Research Society of Japan, 2018, 43, 229-232.	0.2	0
25	A dramatic improvement in the tensile strength of fullerene needle-like crystals. New Carbon Materials, 2018, 33, 310-315.	2.9	4
26	Biogenic Reduction of Graphene Oxide: An Efficient Superparamagnetic Material for Photocatalytic Hydrogen Production. ACS Applied Energy Materials, 2018, 1, 5907-5918.	2.5	23
27	Investigation of Charge Accumulation States in Polymer Solar Cells using Light-Induced Electron Spin Resonance Spectroscopy. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2018, 31, 169-176.	0.1	8
28	Operando Direct Observation of Charge Accumulation and the Correlation with Performance Deterioration in PTB7 Polymer Solar Cells. ACS Applied Materials & Interfaces, 2018, 10, 26434-26442.	4.0	23
29	Electrically Controlled Dimensionality of Magnetic Systems in Organic Materials. Applied Magnetic Resonance, 2018, 49, 767-782.	0.6	6
30	Mechanism of Light-Soaking Effect in Inverted Polymer Solar Cells with Open-Circuit Voltage Increase. ACS Omega, 2017, 2, 1617-1624.	1.6	10
31	Direct observation of dramatically enhanced hole formation in a perovskite-solar-cell material spiro-OMeTAD by Li-TFSI doping. Applied Physics Letters, 2017, 110, .	1.5	53
32	Dependence of the Device Performance of Polymer Solar Cells on the Insertion of Metal Nanoparticle Layers at the Electron-collecting Electrodes. Electrochemistry, 2017, 85, 272-275.	0.6	4
33	Investigation of Degradation Mechanism of Pentacene/C₆₀ Heterojunction Solar Cells. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2017, 30, 569-575.	0.1	2
34	Lightâ€Induced Degradation Mechanism in Poly(3â€hexylthiophene)/Fullerene Blend Solar Cells. Advanced Energy Materials, 2016, 6, 1600171.	10.2	40
35	ESR Study of Degradation Mechanism Due to Charge Formation in Polymer Solar Cells. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2016, 29, 541-545.	0.1	5
36	Direct observation of electrically induced Pauli paramagnetism in single-layer graphene using ESR spectroscopy. Scientific Reports, 2016, 6, 34966.	1.6	12

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37	2D coherent charge transport in highly orderedÂconducting polymers doped by solid stateÂdiffusion. Nature Materials, 2016, 15, 896-902.	13.3	346
38	D-Ï€-A polysulfones for blue electroluminescence. Journal of Polymer Science Part A, 2016, 54, 3454-3461.	2.5	6
39	Initial photooxidation mechanism leading to reactive radical formation of polythiophene derivatives. Polymer Journal, 2015, 47, 26-30.	1.3	23
40	Mechanistic Investigation into the Light Soaking Effect Observed in Inverted Polymer Solar Cells Containing Chemical Bath Deposited Titanium Oxide. Journal of Physical Chemistry C, 2015, 119, 5274-5280.	1.5	21
41	Dramatic enhancement of fullerene anion formation in polymer solar cells by thermal annealing: Direct observation by electron spin resonance. Applied Physics Letters, 2014, 104, .	1.5	28
42	Microscopic Analysis of Organic Solar Cells by Simultaneous Measurements of ESR and Device Performance. Materials Research Society Symposia Proceedings, 2014, 1639, 1.	0.1	0
43	Direct observation of spins at bathocuproine (BCP) interfaces: An electron spin resonance study on BCP/metal (Al or Au) thin films. Chemical Physics Letters, 2014, 607, 29-33.	1.2	10
44	Electron spin resonance observation of charge carrier concentration in organic field-effect transistors during device operation. Physical Review B, 2013, 87, .	1.1	28
45	Microscopic Characterization of Printable Low-Voltage Electrolyte-Gated Transistors by Electron Spin Resonance. Japanese Journal of Applied Physics, 2013, 52, 05DC05.	0.8	1
46	Charge Accumulation in Organic Solar Cells during Device Operation as Investigated by Electron Spin Resonance. Japanese Journal of Applied Physics, 2013, 52, 05DC13.	0.8	6
47	Electron Spin Resonance Study of Organic Interfaces in Ion Gel-Gated Rubrene Single-Crystal Transistors. Applied Physics Express, 2013, 6, 041603.	1.1	9
48	Direct Observation of Charge Carriers in Highly Magnesium-Doped Tris(8-hydroxyquinoline) Aluminum Thin Film by Electron Spin Resonance. Japanese Journal of Applied Physics, 2013, 52, 05DB07.	0.8	5
49	Two-dimensional magnetic interactions and magnetism of high-density charges in a polymer transistor. Applied Physics Letters, 2013, 102, .	1.5	20
50	Direct Observation of Hole Accumulation in Polymer Solar Cells During Device Operation using Lightâ€Induced Electron Spin Resonance. Advanced Materials, 2013, 25, 2362-2367.	11.1	59
51	Charge Transfer at the Interfaces between Poly(3,4-ethylenedioxythiophene):Poly(styrenesulfonate) (PEDOT:PSS) and Pentacene as Investigated by ESR. Chemistry Letters, 2012, 41, 696-698.	0.7	5
52	Electron Spin Resonance of Thin Films of N,Nâ€²-Di(1-naphthyl)-N,Nâ€²-diphenylbenzidine (NPB) Doped by Iodine Vapor. Chemistry Letters, 2012, 41, 191-193.	0.7	8
53	Electron spin resonance of thin films of organic light-emitting material tris(8-hydroxyquinoline) aluminum doped by magnesium. Synthetic Metals, 2012, 162, 2451-2454.	2.1	18
54	Charge Formation in Pentacene Layers During Solarâ€Cell Fabrication: Direct Observation by Electron Spin Resonance. Advanced Energy Materials, 2012, 2, 591-597.	10.2	48

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55	Evaluation of Microscopic Properties of Organic Solar Cells by Light-Induced Electron Spin Resonance. Japanese Journal of Applied Physics, 2012, 51, 10NE08.	0.8	0
56	Electron Spin Resonance Study of Interface Trap States and Charge Carrier Concentration in Rubrene Single-Crystal Field-Effect Transistors. Applied Physics Express, 2011, 4, 085702.	1.1	11
57	Direct determination of interfacial molecular orientations in field-effect devices of P3HT/PCBM composites by electron spin resonance. Organic Electronics, 2011, 12, 716-723.	1.4	25
58	Microscopic mechanisms behind the high mobility in rubrene single-crystal transistors as revealed by field-induced electron spin resonance. Physical Review B, 2011, 83, .	1.1	64
59	DEPENDENCE OF DEVICE CHARACTERISTICS OF BULK-HETEROJUNCTION ORGANIC THIN-FILM SOLAR CELLS ON CONCENTRATION OF GLYCEROL AND SORBITOL ADDITION IN PEDOT: PSS SOLUTIONS FOR FABRICATING BUFFER LAYERS. Journal of Nonlinear Optical Physics and Materials, 2010, 19, 653-662.	1.1	6
60	Direct observation of the charge carrier concentration in organic field-effect transistors by electron spin resonance. Applied Physics Letters, 2009, 94, 103308.	1.5	36
61	Electron Spin Resonance Observation of Gate-induced Charge Carriers in Organic Field-effect Devices Fabricated on Silicon Substrates. Japanese Journal of Applied Physics, 2007, 46, L792-L795.	0.8	20
62	Light-Induced ESR Studies of Quadrimolecular Recombination Kinetics of Photogenerated Charge Carriers in Regioregular Poly(3-alkylthiophene)/C₆₀ Composites: Alkyl Chain Dependence. Japanese Journal of Applied Physics, 2007, 46, 5187.	0.8	15
63	Electron Spin Resonance Observation of Gate-Induced Ambipolar Charge Carriers in Organic Devices. Japanese Journal of Applied Physics, 2007, 46, L1191.	0.8	20
64	Electron-nuclear double-resonance observation of spatial extent of polarons in polythiophene and poly(3-alkylthiophene). Chemical Physics Letters, 2007, 435, 273-277.	1.2	24
65	Dynamical Valence Fluctuation at the Chargeâˆ'Densityâˆ'Wave Phase Boundary in Iodide-Bridged Pt Compound [Pt(chxn)2I]I2. Journal of the American Chemical Society, 2006, 128, 6420-6425.	6.6	34
66	Spatial Extent of Wave Functions of Gate-Induced Hole Carriers in Pentacene Field-Effect Devices as Investigated by Electron Spin Resonance. Physical Review Letters, 2006, 97, 256603.	2.9	162
67	Electrical Conduction of Regioregular and Regiorandom Poly(3-hexylthiophene) Doped with Iodine. Journal of the Physical Society of Japan, 2005, 74, 3314-3319.	0.7	31
68	Electron Spin Resonance of Field-Induced Polarons in Regioregular Poly(3-alkylthiophene) Using Metalâ€"Insulatorâ€"Semiconductor Diode Structures. Journal of the Physical Society of Japan, 2005, 74, 3066-3076.	0.7	67
69	Visualization of Local Valence Structures in Quasi-One-Dimensional Halogen-Bridged Complexes[Ni1âˆ'xPdx(chxn)2Br]Br2 by STM. Angewandte Chemie - International Edition, 2004, 43, 3171-3175.	7.2	40
70	[{[Pt(en)2][PtX2(en)2]}3][{(MX5)X3}2]â‹...12â€‰H2O: Quasi-One-Dimensional Halogen-Bridged PtIIâ€"PtIV Mixed-Valence Compounds with Magnetic Counteranions. Angewandte Chemie - International Edition, 2004, 43, 4763-4767.	7.2	24
71	Electron Spin Resonance Observations of Field-Induced Polarons in Regioregular Poly(3-octylthiophene) Metalâ€"Insulatorâ€"Semiconductor Diode Structures. Journal of the Physical Society of Japan, 2004, 73, 1673-1676.	0.7	29
72	ESR Studies of Layered-Perovskite ManganitesR0.5Sr1.5MnO4(R= La, Nd). Journal of the Physical Society of Japan, 2003, 72, 582-587.	0.7	2

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73	ESR Detection of Induced Spin Moments in Halogen-Bridged Mixed-Metal Complexes Ni1-xPdx(chxn)2Br3. Journal of the Physical Society of Japan, 2002, 71, 1370-1375.	0.7	10
74	ESR Observation of Optically-Generated Polarons in Conjugated Electroluminescent Polymers. Molecular Crystals and Liquid Crystals, 2001, 371, 159-162.	0.3	4
75	Electron Spin Resonance Study of Low-Dimensional Magnetic Properties of MnF2-CaF2 Superlattices. Japanese Journal of Applied Physics, 2001, 40, L1151-L1153.	0.8	9
76	Tuning of Charge Density Wave Strengths by Competition between Electronâ^'Phonon Interaction of PdIIâ^'PdIVMixed-Valence States and Electron Correlation of NiIIIStates in Quasi-One-Dimensional Bromo-Bridged Niâ^'Pd Mixed-Metal MX Chain Compounds Ni1-xPdx(chxn)2Br3. Inorganic Chemistry, 1999, 38, 5124-5130.	1.9	54
77	Effects of SiN _x refractive index and SiO ₂ thickness on polarizationâ€type potentialâ€induced degradation in frontâ€emitter nâ€type crystallineâ€silicon photovoltaic cell modules. Energy Science and Engineering, 0, , .	1.9	5