Kiyoshi Kobayashi

List of Publications by Year
in descending order

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77	855	471509	580821
papers	citations	17 h-index	25 g-index

78	78	78	759
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Extended Distribution of Relaxation Time Analysis for Electrochemical Impedance Spectroscopy. Electrochemistry, 2022, 90, 017004-017004.	1.4	9
2	Excess oxygen-vacancy formed by FAST regime of direct-current electric field during flash sintering for 3Âmol%â€“10Âmol% Y2O3-doped ZrO2. Ceramics International, 2022, 48, 12091-12097.	4.8	9
3	Electrode overvoltage model for a flash state of yttria-stabilized zirconia: validity, limitation, and open new issue. Journal of the Ceramic Society of Japan, 2022, 130, 172-179.	1.1	1
4	pH-controlled synthesis and spark plasma sintering of fine and homogeneous MgZr₄(PO₄)₆ powder. Journal of the Ceramic Society of Japan, 2022, 130, 243-248.	1.1	0
5	Synchronization Phenomena Originating from Quantum Effects of Photon Fields. Journal of the Physical Society of Japan, 2022, 91, .	1.6	0
6	Anisotropic thermal expansion and ionic conductivity of a crystal-oriented, Mg2+-conducting NASICON-type solid electrolyte. Ceramics International, 2022, 48, 10733-10740.	4.8	1
7	Theory of Electrode Overvoltage for Stabilized Zirconia Solid Electrolyte and Its Application to Several Topics. Materia Japan, 2022, 61, 210-217.	0.1	0
8	Fabrication of BSCF-based mixed oxide ionic-electronic conducting multi-layered membrane by sequential electrophoretic deposition process. Journal of the European Ceramic Society, 2021, 41, 2709-2715.	5.7	10
9	Free Analysis and Visualization Programs for Electrochemical Impedance Spectroscopy Coded in Python. Electrochemistry, 2021, 89, 218-222.	1.4	13
10	Production of crystal-oriented lanthanum silicate oxyapatite ceramics with anisotropic electrical conductivity and thermal expansion. Open Ceramics, 2021, 6, 100100.	2.0	3
11	Enhanced ionic conductivity of aluminum tungstate by crystallographic orientation in a strong magnetic field. Journal of the American Ceramic Society, 2021, 104, 6364.	3.8	6
12	Cross-sectional Area Dependency of Shrinkages and Grain Sizes of Flash-sintered 3 mol%Y₂O₃â€“ZrO₂ Polycrystals with a Circular Truncated Cone-shape at High Frequency Alternating Electric Current Fields. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2021, 68, 487-493.	0.2	9
13	Theoretical modelling of electrode overvoltage for an all-solid-state electrochemical device. Japanese Journal of Applied Physics, 2020, 59, SIIG04.	1.5	5
14	Development of Impedance Analysis Software Implementing a Support Function to Find Good Initial Guess Using an Interactive Graphical User Interface. Electrochemistry, 2020, 88, 39-44.	1.4	13
15	Fabrication of BSCF-based mixed ionic-electronic conducting membrane by electrophoretic deposition for oxygen separation application. Journal of the European Ceramic Society, 2019, 39, 5292-5297.	5.7	9
16	Growth of small GeO₂ single crystals on a polyvinyl chloride substrate at room temperature using oversaturate aqueous solution. Electronics and Communications in Japan, 2019, 102, 12-16.	0.5	1
17	Anisotropic Electric Conductivity and Battery Performance in <i>C</i>-axis Oriented Lanthanum Silicate Oxyapatite Prepared by Slip Casting in a Strong Magnetic Field. Materials Transactions, 2019, 60, 1949-1953.	1.2	5
18	Growth of Small GeO₂ Single Crystals on a Polyvinyl Chloride Substrate at Room Temperature using Oversaturate Aqueous Solution. IEEJ Transactions on Electronics, Information and Systems, 2019, 139, 203-206.	0.2	0

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19	Development of an Algorithm for Automatic Analysis of the Impedance Spectrum Based on a Measurement Model. Journal of the Physical Society of Japan, 2018, 87, 034004.	1.6	4
20	Stabilization of the high-temperature phase and total conductivity of yttrium-doped lanthanum germanate oxyapatite. Journal of the Ceramic Society of Japan, 2018, 126, 91-98.	1.1	3
21	Anisotropic Electronic Conductivity and Battery Performance in C-axis Oriented Lanthanum Silicate Oxyapatite Prepared by Slip Casting in a Strong Magnetic Field. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2018, 65, 121-126.	0.2	0
22	Distribution of Relaxation Time Analysis for Non-ideal Immittance Spectrum: Discussion and Progress. Journal of the Physical Society of Japan, 2018, 87, 094002.	1.6	19
23	Highâ€pressure synthesis of a 12CaOÂ·7Al₂O₃â€“12SrOÂ·7Al₂O₃ solid solution. Journal of the American Ceramic Society, 2017, 100, 1285-1289.	3.8	4
24	Electrical properties of murataite modules with complex and large-volume fluorite-type superstructures. Materials Research Bulletin, 2016, 84, 254-258.	5.2	4
25	Development of an electrochemical impedance analysis program based on the expanded measurement model. Journal of the Ceramic Society of Japan, 2016, 124, 943-949.	1.1	18
26	Sinterable powder fabrication of lanthanum silicate oxyapatite based on solid-state reaction method. Journal of the Ceramic Society of Japan, 2015, 123, 274-279.	1.1	8
27	Room-temperature synthesis of Bi₄Ge₃O₁₂from aqueous solution. Japanese Journal of Applied Physics, 2015, 54, 06FJ03.	1.5	7
28	Research and Development of the Coprecipitation Process for Lanthanum Germanate Oxyapatite. Journal of the American Ceramic Society, 2015, 98, 66-70.	3.8	6
29	Sinterable Powder Fabrication and the Oxygen-ion Conductivity of Lanthanum Silicate Oxyapatite. Journal of the Society of Powder Technology, Japan, 2015, 52, 648-657.	0.1	0
30	Research progress in nondoped lanthanoid silicate oxyapatites as new oxygen-ion conductors. Journal of the Ceramic Society of Japan, 2014, 122, 921-939.	1.1	25
31	Rudimental research progress of rare-earth silicate oxyapatites: their identification as a new compound until discovery of their oxygen ion conductivity. Journal of the Ceramic Society of Japan, 2014, 122, 649-663.	1.1	22
32	Unconventional upright layer orientation and considerable enhancement of protonâ€“electron conductivity in Dionâ€“Jacobson perovskite thin films. CrystEngComm, 2014, 16, 4113-4119.	2.6	2
33	Discovery of a new crystalline phase: BiGeO₂(OH)₂(NO₃). CrystEngComm, 2014, 16, 10080-10088.	2.6	8
34	The effect of local structure on ionic conductivity of apatite-type La9.5Si6O26.25. Journal of Power Sources, 2014, 248, 685-689.	7.8	10
35	Magnesium ion distribution and defect concentrations of MgO-doped lanthanum silicate oxyapatite. Solid State Ionics, 2014, 258, 24-29.	2.7	4
36	Low-Tepmerature Synthesis Process of Lanthanum Germanate Oxyapatite by Citrate Combustion Method. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2014, 61, 582-586.	0.2	3

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37	Theoretical modeling of electrode impedance for an oxygen ion conductor and metallic electrode system based on the interfacial conductivity theory. Solid State Ionics, 2013, 232, 49-57.	2.7	10
38	Solâ€“gel synthesis and ionic conductivity of oxyapatite-type La9.33+xSi6O26+1.5x. Journal of Power Sources, 2013, 235, 62-66.	7.8	27
39	Surface morphological structures and electrochemical activity properties of iridiumâ€“niobium binary alloy electrodes. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2013, 178, 1104-1109.	3.5	0
40	Transition metal-doped lanthanum germanate apatites as electrolyte materials of solid oxide fuel cells. Solid State Ionics, 2013, 247-248, 48-55.	2.7	17
41	Theoretical modeling of electrode impedance for an oxygen ion conductor and metallic electrode system based on the interfacial conductivity theory. Part II: Case of the limiting process by non-steady-state surface diffusion. Solid State Ionics, 2013, 249-250, 78-85.	2.7	8
42	Surface Structures and Electrochemical Activity of Palladiumâ€“Niobium Binary Alloy Electrodes, and Glucose Biosensor with Palladiumâ€“Niobium Binary Alloy Electrode. Bulletin of the Chemical Society of Japan, 2013, 86, 1317-1322.	3.2	2
43	Phase relationships in the quasi-ternary LaO1.5â€“SiO2â€“MgO system at 1773 K. Science and Technology of Advanced Materials, 2012, 13, 045006.	6.1	7
44	Electrical conductivity and X-ray diffraction analysis of oxyapatite-type lanthanum silicate and neodymium silicate solid solution. Solid State Ionics, 2012, 225, 443-447.	2.7	5
45	Low-temperature formation of Ln silicate oxyapatite (Ln=La and Nd) by the water-based solâ€“gel method. Solid State Ionics, 2011, 204-205, 91-96.	2.7	12
46	Electrophretic Deposition of LDC/LSGM/LDC Tri-layers on NiO-YSZ for Anode-supported SOFC. Transactions of the Materials Research Society of Japan, 2010, 35, 723-725.	0.2	2
47	Electrical Transport and Electric Power Generation Properties of Lanthanum Silicate Oxyapatite Ceramics Prepared by a Sol-gel Method. ECS Transactions, 2009, 25, 1785-1790.	0.5	9
48	Powder neutron diffraction of La-apatite under low temperature. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2009, 600, 319-321.	1.6	23
49	Fabrication of GDC/LSGM/GDC tri-layers on polypyrrole-coated NiO-YSZ by electrophoretic deposition for anode-supported SOFC. Journal of the Ceramic Society of Japan, 2009, 117, 1246-1248.	1.1	20
50	Structural study and proton transport of bulk nanograined Y-doped BaZrO3 oxide protonics materials. Solid State Ionics, 2008, 179, 236-242.	2.7	99
51	Water-based solâ€“gel synthesis and crystal structure refinement of lanthanum silicate apatite. Solid State Ionics, 2008, 179, 2209-2215.	2.7	27
52	Bulk-Nanograined BaScO2(OH) as a New Class of Oxide Protonics Materials. ECS Meeting Abstracts, 2008, , .	0.0	0
53	Preparation of Porous Carbon Spheres Dispersed with Pdâ€“Ag Alloy Nanoparticles. Chemistry Letters, 2007, 36, 152-153.	1.3	2
54	Hydrogen Gas Diffusion Electrode Prepared from Porous Carbon Spheres Dispersed with Pdâ€“Ag Alloy Nanoparticles. Bulletin of the Chemical Society of Japan, 2007, 80, 2243-2245.	3.2	0

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55	Proton incorporation and defect chemistry of Yb-doped BaPrO3. Solid State Ionics, 2007, 178, 641-647.	2.7	25
56	Ester Condensation from a Stoichiometric Mixture of a Carboxylic Acid and an Alcohol at 313 K Assisted by Pervaporation via Zeolite Membranes. Chemistry Letters, 2006, 35, 76-77.	1.3	10
57	Preparation of palladium film by coating photolysis process using KrF or ArF excimer laser. Applied Surface Science, 2006, 252, 2858-2866.	6.1	3
58	Structural changes of a Pd-based membrane during direct hydroxylation of benzene to phenol. Catalysis Today, 2006, 118, 57-62.	4.4	34
59	Synthesis and oxygen permeation properties of 75Âmol% Ce0.75Nd0.25O1.875â€“25Âmol% Nd1.8Ce0.2CuO4 composite. Journal of Solid State Electrochemistry, 2006, 10, 629-634.	2.5	9
60	Electronic Structure of Ce1-xNdxO2-Î´Probed by Soft-X-Ray Spectroscopy. Japanese Journal of Applied Physics, 2004, 43, L1463-L1465.	1.5	3
61	Oxygen permeation and electrical transport properties of 60 vol.% Bi1.6Y0.4O3 and 40 vol.% Ag composite prepared by the sol?gel method. Solid State Ionics, 2004, 175, 405-408.	2.7	24
62	Thermoelectric Properties, Defect Structure, and Electronic Structure of Ln_{0.9}Sr_{0.1}FeO_{3â^'}_{Î´} (Ln = La and Nd). Electrochemistry, 2004, 72, 870-875.	1.4	4
63	Band Structure of TiO2-Doped Yttria-Stabilized Zirconia Probed by Soft-X-Ray Spectroscopy. Japanese Journal of Applied Physics, 2003, 42, L941-L943.	1.5	7
64	Electronic Structure in the Bulk State of Protonic Conductor CaZrO3 by Resonant Soft-X-Ray Emission Spectroscopy. Japanese Journal of Applied Physics, 2002, 41, L938-L940.	1.5	11
65	Theoretical Vâ€“I characteristics of the solid-oxide thermocell using the oxide ion and electronic mixed conductors. Solid State Ionics, 2002, 154-155, 101-107.	2.7	2
66	OXYGEN PERMEABILITY OF 60-VOLUME% Bi_{1.6}Y_{0.4}O₃ AND 40-VOLUME% Ag COMPOSITE PREPARED BY CITRATE SOL-GEL METHOD. , 2002, , .		0
67	Calculation of the density of states of transition metal monosilicides by a first-principle pseudopotential method using plane-wave basis. Intermetallics, 2001, 9, 261-268.	3.9	33
68	Thermoelectric properties and defect structure of La0.45Nd0.45Sr0.1FeO3Ã¢ÂˆÂ’ÃŽÂ´. Solid State Ionics, 2001, 144, 123-132.	2.7	23
69	Electronic transport properties and electronic structure of InO1.5-doped CaZrO3. Solid State Ionics, 2000, 136-137, 305-311.	2.7	52
70	Electronic transport properties and electronic structure of TiO2-doped YSZ. Solid State Ionics, 2000, 135, 643-651.	2.7	25
71	Photoemission Study on Protonic Conductor CaZrO3: Evidence of the Exchange Mechanism of Proton and Hole. Japanese Journal of Applied Physics, 2000, 39, L133-L136.	1.5	25
72	Phase Relation of ZrO₂-YO_{1.5}-TiO₂ Ceramics Prepared by Sol-Gel Method. Journal of the Ceramic Society of Japan, 1998, 106, 860-866.	1.3	13

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73	Total Electrical Conductivity Measurements of TiO₂ Doped YSZ Ceramics. Journal of the Ceramic Society of Japan, 1998, 106, 1073-1078.	1.3	7
74	Metastable Phase Relationship in the ZrO₂-YO_{1.5}, ZrO₂-TiO₂ and YO_{1.5}-TiO₂ Systems. Journal of the Ceramic Society of Japan, 1998, 106, 782-786.	1.3	8
75	Electronic Transport Properties ofZrTiO4at High Temperature. Japanese Journal of Applied Physics, 1994, 33, 5471-5476.	1.5	11
76	Chemical Reactivity and Cathode Properties of LaCoO₃ on Lanthanum Silicate Oxyapatite Electrolyte. Key Engineering Materials, 0, 616, 120-128.	0.4	10
77	Surface Modification of Complex Oxide Powder with Polyelectrolyte Layers Improving EPD Characteristics. Key Engineering Materials, 0, 654, 255-260.	0.4	0