Shigeomi Takai

List of Publications by Year
in descending order

97 papers	813 citations	687363 13 h-index	610901 24 g-index
98 all docs	98 docs citations	98 times ranked	824 citing authors

#	Article	IF	Citations
1	Evaluation of calcium phosphate coating on biodegradable Mgâ€“Alâ€“Znâ€“Ca alloy formed under ordinary conditions on temperature and pressure. Journal of the Ceramic Society of Japan, 2022, 130, 81-87.	1.1	0
2	Electrochemical Properties of Cs and La Co-doped CaWO₄ Oxide Ion Conductor. Electrochemistry, 2022, 90, 027004-027004.	1.4	1
3	Dependence property of isoelectric points and pH environment on enzyme immobilization on maghemite/hydroxyapatite composite particles. Journal of the Ceramic Society of Japan, 2022, 130, 74-80.	1.1	2
4	Tracer diffusion coefficients measurements on LaPO4-dispersed LATP by means of neutron radiography. Solid State Ionics, 2022, 377, 115873.	2.7	7
5	Synthesis and Characterization of LAGP-Based Lithium Ion-Conductive Composites with an LLTO Additive. Journal of Alloys and Compounds, 2021, 853, 157089.	5.5	9
6	Relaxation Analysis of Li_xNi_{0.8}Co_{0.1}Mn_{0.1}O₂ after Lithium Extraction to High-Voltage Region (x â‰ 0.12). Journal of the Electrochemical Society, 2021, 168, 010518.	2.9	4
7	Performance of Lead Acid Battery Using Graphite Composite Current Collector. ECS Meeting Abstracts, 2021, MA2021-01, 1990-1990.	0.0	0
8	Lead Acid Battery with Composite Cathode of Active Material and Graphite Current Collector. ECS Meeting Abstracts, 2021, MA2021-01, 1989-1989.	0.0	1
9	Synthesis and Characterization of Lithium-Ion Conductive LATP-LaPO4 Composites Using La2O3 Nano-Powder. Materials, 2021, 14, 3502.	2.9	9
10	TEM Observation of LaPO₄-Dispersed LATP Lithium-Ion Conductor. Electrochemistry, 2021, 89, 480-483.	1.4	0
11	Surface Modification of Carbon Fiber-Polyetheretherketone Composite to Impart Bioactivity by Using Apatite Nuclei. Materials, 2021, 14, 6691.	2.9	6
12	Thickness Effect of Composite Cathode of Active Material and Graphite Current Collector on Performance of Lead Acid Battery. ECS Meeting Abstracts, 2021, MA2021-02, 1694-1694.	0.0	1
13	Improved cathode performance and relaxation properties of LiMn₂O₄ prepared by optimized ball-milling with single-step sintering. Journal of the Ceramic Society of Japan, 2021, 129, 744-752.	1.1	2
14	Role of Magnesium and the Effect of Surface Roughness on the Hydroxyapatite-Forming Ability of Zirconia Induced by Biomimetic Aqueous Solution Treatment. Materials, 2020, 13, 3045.	2.9	9
15	Low temperature phase transition phenomena in Ba- and Pb-substituted La2Mo2O9 oxide ion conductors. Solid State Ionics, 2020, 354, 115405.	2.7	3
16	Relaxation analysis of NCAs in high-voltage region and effect of cobalt content. Journal of Electroanalytical Chemistry, 2020, 878, 114566.	3.8	1
17	Relaxation stage analysis of lithium inserted graphite. Journal of Physics and Chemistry of Solids, 2020, 142, 109440.	4.0	6
18	Development of Apatite Nuclei Precipitated Carbon Nanotube-Polyether Ether Ketone Composite with Biological and Electrical Properties. Coatings, 2020, 10, 191.	2.6	5

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19	Immobilization and collection of enzymes by hydroxyapatite/maghemite composite particles with magnetism. Journal of the Ceramic Society of Japan, 2020, 128, 883-889.	1.1	3
20	Impartation of hydroxyapatite formation ability to ultraâ€high molecular weight polyethylene by deposition of apatite nuclei. IET Nanobiotechnology, 2020, 14, 673-679.	3.8	2
21	Impartation of apatiteâ€forming ability to chitosan nanofibres by using apatite nuclei. IET Nanobiotechnology, 2020, 14, 668-672.	3.8	0
22	Development of bioactive zirconiumâ€“tin alloy by combination of micropores formation and apatite nuclei deposition. IET Nanobiotechnology, 2020, 14, 701-706.	3.8	3
23	A COMPARITIVE IN VITRO BIOACTIVY EVALUATION OF POLYVINYLIDENE FLUORIDE AND POLYCAPROLACTONE INCORPORATED WITH AMORPHOUS CALCIUM PHOSPHATE PARTICLES. Phosphorus Research Bulletin, 2020, 36, 15-22.	0.6	2
24	Relaxation Analysis of Graphite Anode Materials after Charge-Discharge Cycles. Electrochemistry, 2020, 88, 434-436.	1.4	2
25	Improvement of hydroxyapatite formation ability of titaniumâ€based alloys by combination of acid etching and apatite nuclei precipitation. IET Nanobiotechnology, 2020, 14, 688-694.	3.8	3
26	Fabrication of bioactive titanium and its alloys by combination of doubled sandblasting process and alkaline simulated body fluid treatment. Journal of the Ceramic Society of Japan, 2019, 127, 669-677.	1.1	9
27	Development of Bioactive Apatite Nuclei-Precipitated Ti-12Ta-9Nb-6Zr-3V-O Alloy. Key Engineering Materials, 2019, 829, 125-130.	0.4	0
28	Fabrication of Bioactive Zirconia by Doubled Sandblasting Process and Incorporation of Apatite Nuclei. Key Engineering Materials, 2019, 829, 151-156.	0.4	0
29	Structural Relaxation of Li_xNi_{0.874}Co_{0.090}Al_{0.036}O₂ after Lithium Extraction down to (x â‰ 0.12). Journal of the Electrochemical Society, 2019, 166, A5153-A5156.	2.9	2
30	Chemical transformation of PbO2 due to local cell reaction on the cathode of lead acid battery. Journal of Alloys and Compounds, 2019, 780, 85-89.	5.5	11
31	Effect of local cell reaction at cathode on the performance of nickel metal-hydride battery. Journal of Alloys and Compounds, 2019, 772, 256-262.	5.5	12
32	Fabrication of Bioactive Fiberâ€reinforced PEEK and MXD6 by Incorporation of Precursor of Apatite. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2018, 106, 2254-2265.	3.4	25
33	Biomimetic Method for Production of Magnetic Hydroxyapatite Microcapsules for Enzyme Immobilization. Transactions of the Materials Research Society of Japan, 2018, 43, 153-156.	0.2	6
34	Bioactivity Treatment to Polylactic Acid Fabric Cloth and Foam by Precipitation of Apatite Nuclei. Transactions of the Materials Research Society of Japan, 2018, 43, 139-142.	0.2	1
35	Bioactivity Treatment for Co-Cr-Mo Alloy by Precipitation of Low Crystalline Calcium Phosphate Using Simulated Body Fluid with Alkalinized Condition. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2018, 65, 211-214.	0.2	0
36	Enzyme Immobilization Behavior on the Surface of Hydroxyapatite Capsules under Alkaline Condition. Key Engineering Materials, 2018, 782, 21-26.	0.4	0

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37	Effect of Doubled Sandblasting Process and Basic Simulated Body Fluid Treatment on Fabrication of Bioactive Stainless Steels. Materials, 2018, 11, 1334.	2.9	13
38	Structural Relaxation of Lix(Ni0.874Co0.090Al0.036)O2 after Lithium Extraction down to x = 0.12. Materials, 2018, 11, 1299.	2.9	9
39	Effect of Oxygen Plasma Treatment on Fabrication of Bioactive Ultrahigh Molecular Weight Polyethylene Composite. Funtai Oyobi Fummatsu Yakin/Journal of the Japan Society of Powder and Powder Metallurgy, 2018, 65, 207-210.	0.2	0
40	Defect Structure and Oxide Ion Conduction of Potassium Ion Substituted CaWO4. Materials, 2018, 11, 1092.	2.9	10
41	Fabrication of Bioactive Co-Cr-Mo-W Alloy by Using Doubled Sandblasting Process and Apatite Nuclei Treatment. Transactions of the Materials Research Society of Japan, 2018, 43, 143-147.	0.2	8
42	Effective Procedure of Bioactivity Treatment to Bearing Grade PEEK by Incorporation of Apatite Nuclei. Transactions of the Materials Research Society of Japan, 2018, 43, 149-152.	0.2	0
43	Differences between the Kinetically Preferred States of LiFePO₄during Charging and Discharging Observed Using In Situ X-ray Diffraction Measurements. Journal of the Electrochemical Society, 2017, 164, A1281-A1284.	2.9	4
44	Relaxation Analysis of Li_xNiO₂and Li_x(NCA)O₂in the Deeply Lithium Extracted Region (x â‰ 0.12). Journal of the Electrochemical Society, 2017, 164, A1514-A1519.	2.9	18
45	Effect of pores formation process and oxygen plasma treatment to hydroxyapatite formation on bioactive PEEK prepared by incorporation of precursor of apatite. Materials Science and Engineering C, 2017, 81, 349-358.	7.3	35
46	Synthesis and anode properties of corundum-type structured (Fe 2 O 3) 1-x (Al 2 O 3) x solid solutions in the whole compositional range. Solid State Ionics, 2017, 313, 1-6.	2.7	4
47	Fabrication of Bioactive Cobalt-Chromium Alloys by Incorporation of Apatite Nuclei. Key Engineering Materials, 2016, 720, 180-184.	0.4	1
48	Fabrication of Bioactive Glass Fiber Reinforced Polyamide with High Mechanical Performance by the Function of Apatite Nuclei. Key Engineering Materials, 2016, 720, 241-245.	0.4	1
49	THE EFFECTS OF SBF CONDITIONS ON ENCAPSULATION OF AGAROSE GEL WITH HYDROXYAPATITE MICROCAPSULES. Phosphorus Research Bulletin, 2016, 31, 9-14.	0.6	3
50	Î±-PbO₂Formation on the Cathode of Lead Acid Battery due to the Local Cell Reaction. Journal of the Electrochemical Society, 2016, 163, A3087-A3090.	2.9	9
51	Relaxation Analysis of LiNi_{0.5}Mn_{1.5}O₄ 5 V Cathode Material by Means of the Rietveld Refinement. Electrochemistry, 2016, 84, 808-811.	1.4	10
52	Electrochemical properties of Cs-substituted CaWO₄ and BaWO₄ oxide ion conductors. Journal of the Ceramic Society of Japan, 2016, 124, 819-822.	1.1	8
53	EFFECTS OF SANDBLASTING CONDITIONS IN PREPARATION OF BIOACTIVE STAINLESS STEELS BY THE FUNCTION OF APATITE NUCLEI. Phosphorus Research Bulletin, 2016, 31, 15-19.	0.6	3
54	INVESTIGATION OF EFFECTIVE PROCEDURES IN FABRICATION OF BIOACTIVE PEEK USING THE FUNCTION OF APATITE NUCLEI. Phosphorus Research Bulletin, 2016, 31, 31-37.	0.6	3

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55	Synthesis and Electrochemical Properties of LATP-LLTO Lithium Ion Conductive Composites. Electrochemistry, 2016, 84, 967-970.	1.4	19
56	Effect of heat treatment time on cycle performance of LiMn2O4 with â€œNano Inclusionâ€•for lithium ion batteries. RSC Advances, 2015, 5, 42455-42460.	3.6	3
57	Crystal chemical investigation of nano inclusion in LiMn2O4 cathode material of lithium ion battery. RSC Advances, 2014, 4, 59858-59861.	3.6	0
58	Relaxation Structure Analysis of the Single-Phase Reaction of LiMn_{0.75}Fe_{0.25}PO₄. Journal of the Electrochemical Society, 2014, 161, A1759-A1763.	2.9	11
59	Crystal structure analysis of Î³-Fe2O3 with chemical lithium insertion. Solid State Ionics, 2014, 255, 50-55.	2.7	4
60	Tracer diffusion coefficients of lithium ion in LiMn2O4 measured by neutron radiography. Solid State Ionics, 2014, 256, 93-96.	2.7	38
61	Low-temperature phase transition phenomena for bismuth-substituted La2Mo2O9. Solid State Ionics, 2014, 262, 540-542.	2.7	4
62	Structural and electrical properties of Pb-substituted La2Mo2O9 oxide ion conductors. Solid State Ionics, 2013, 238, 36-43.	2.7	16
63	Conduction Property of PbWO4- and PbMoO4-based Oxide Ion Conductors in Lower Oxygen Partial Pressures. Electrochemistry, 2011, 79, 696-700.	1.4	7
64	Defects and oxide ion transport properties in the substituted Zn2TiO4. Journal of the Ceramic Society of Japan, 2010, 118, 895-898.	1.1	3
65	Defect structure of Ta- and Al- doped Zn2TiO4 showing oxide ion conduction via cation vacancy. Journal of the Ceramic Society of Japan, 2008, 116, 525-529.	1.1	5
66	Cathode Performance of LiMn2O4 Thick Films Prepared by Gas-Deposition for Lithium Rechargeable Battery. Electrochemistry, 2008, 76, 293-296.	1.4	13
67	Neutron Diffraction Study on the Defect Structure of Ta-Substituted Zn2TiO4 Oxide Ion Conductors. Journal of the Ceramic Society of Japan, 2007, 115, 780-785.	1.1	8
68	Increased Enantioselectivity and Remarkable Acceleration of Lipase-Catalyzed Transesterification by Using an Imidazolium PEGâ€“Alkyl Sulfate Ionic Liquid. Chemistry - A European Journal, 2006, 12, 9228-9237.	3.3	135
69	Diffusion Coefficient Measurements in Lithium Ion Conductive Oxides by means of Neutron Radiography. Hamon, 2006, 16, 168-173.	0.0	0
70	Diffusion coefficient measurements of LaLiTiO using neutron radiography. Solid State Ionics, 2005, 176, 2227-2233.	2.7	24
71	Synthesis of Tungsten, Molybdenum and Vanadium Bronzes by Mechanochemical Method Milling with Liquid Hydrocarbons. Electrochemistry, 2004, 72, 876-879.	1.4	8
72	Preparation of Functional Oxide Materials by Means of Mechanical Alloying â€“ in View of Ionic Conductive Oxides. Defect and Diffusion Forum, 2002, 206-207, 3-18.	0.4	3

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73	Powder neutron diffraction study of Ln-substituted PbWO4 oxide ion conductors. Solid State Ionics, 2002, 148, 123-133.	2.7	50
74	Lithium ion conduction in scheelite-type oxides and analysis of lithium ion motion by neutron radiography. Solid State Ionics, 2001, 140, 71-76.	2.7	17
75	Defect properties of mechanically alloyed La-substituted PbWO4. Solid State Ionics, 2000, 138, 161-168.	2.7	11
76	Conductivity Relaxation Study of the Cubic and Tetragonal Zn[sub 2â^'x/2]Ti[sub 1â^'x]Ta[sub x]O[sub 4]. Journal of the Electrochemical Society, 2000, 147, 272.	2.9	8
77	Visualization of Electric Field in Ion Conductive Oxides using Neutron Computed Tomography. Journal of the Visualization Society of Japan, 2000, 20, 375-376.	0.0	0
78	Ionic conduction properties of Pb1â^'xMxWO4+Î´ (M = Pr, Tb). Materials Research Bulletin, 1999, 34, 193-202.	5.2	47
79	Morphological Observation of the Mechanically Alloying (Bi₂O₃)_{0.80}(Nb₂O₅)_{0.20}. Electrochemistry, 1999, 67, 466-469.	1.4	3
80	Mechanical Alloying of the Perovskite-Type Structured Powder of La_{2/3-x}Li_{3x}TiO₃ Showing Lithium Ion Conduction. Materials Science Forum, 1998, 269-272, 93-98.	0.3	1
81	Application of NR to Study the Lithium Ion Transfer in Solid Ionic Conductors. Key Engineering Materials, 1997, 132-136, 1393-1396.	0.4	4
82	Properties of the perovskite-type oxide ceramic Ca1 â^' xLa2x3MnO3 â^' Î´ as the cathode active materials in alkaline batteries. Materials Research Bulletin, 1997, 32, 1359-1366.	5.2	11
83	Application of Cold Neutron Radiography to Study the Lithium Ion Movement in Li_{1.33}Ti_{1.67}O₄. Electrochemistry, 1996, 64, 984-987.	0.3	6
84	Low temperature heat capacity of Î±-K2ZnBr4 and phase transition at 156 K. Journal of Physics and Chemistry of Solids, 1995, 56, 179-182.	4.0	4
85	Low-temperature heat capacities and Verwey transition of magnetite. Journal of Chemical Thermodynamics, 1994, 26, 1259-1266.	2.0	21
86	Heat capacity anomalies at the Verwey transition of Fe3(1â€”Î´)O4. Thermochimica Acta, 1994, 246, 1-10.	2.7	7
87	Low temperature phase transition in K2ZnCL4 at 146 K. Journal of Physics and Chemistry of Solids, 1993, 54, 213-216.	4.0	9
88	X-Ray Diffraction Study on Phase Relation of BaZnGeO4. Japanese Journal of Applied Physics, 1993, 32, 4635-4640.	1.5	6
89	Fabrication of Bioactive Fiber Reinforced Polyetheretherketone by the Function of Apatite Nuclei. Key Engineering Materials, 0, 720, 246-251.	0.4	2
90	Fabrication of Hydroxyapatite Microcapsules for Controlled Release of Hydrophobic Drug. Key Engineering Materials, 0, 720, 12-16.	0.4	3

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91	Development of Bioactive PEEK by the Function of Apatite Nuclei. Key Engineering Materials, 0, 696, 145-150.	0.4	3
92	Enzyme Immobilization by Using Apatite Microcapsules with Magnetic Properties. Key Engineering Materials, 0, 696, 259-264.	0.4	6
93	Bioactivity Treatments for Zirconium and Ti-6Al-4V Alloy by the Function of Apatite Nuclei. Key Engineering Materials, 0, 720, 175-179.	0.4	3
94	Fabrication of Bone-Like Apatite-Phosphatidylcholine Composite Thin Film by Biomimetic Method. Key Engineering Materials, 0, 696, 40-44.	0.4	0
95	Fabrication of Bioactive Stainless Steel by the Function of Apatite Nuclei. Key Engineering Materials, 0, 696, 151-156.	0.4	2
96	Effect of Isoelectric Point on Enzyme Immobilization Property of Magnetic Apatite Microcapsules Encapsulating Maghemite. Key Engineering Materials, 0, 758, 178-183.	0.4	0
97	Lead acid battery with high resistance to overâ€discharge using graphite based materials as cathode current collector. Nano Select, 0, , .	3.7	2