Hidekazu Tanaka

List of Publications by Year
in descending order

106 papers	2,814 citations	201385 27 h-index	197535 49 g-index
106 all docs	106 docs citations	106 times ranked	2706 citing authors

#	Article	IF	Citations
1	Step-like resistance changes in VO2 thin films grown on hexagonal boron nitride with <i>in situ</i> optically observable metallic domains. Applied Physics Letters, 2022, 120, .	1.5	3
2	Statistical metalâ€“insulator transition properties of electric domains in NdNiO₃ nanowires. Japanese Journal of Applied Physics, 2022, 61, SM1005.	0.8	0
3	Controllable Strongly Electron-Correlated Properties of NdNiO₃ Induced by Large-Area Protonation with Metalâ€“Acid Treatment. ACS Applied Electronic Materials, 2022, 4, 3495-3502.	2.0	5
4	Spatial Analytical Surface Structure Mapping for Three-dimensional Micro-shaped Si by Micro-beam Reflection High-energy Electron Diffraction. E-Journal of Surface Science and Nanotechnology, 2021, 19, 13-19.	0.1	3
5	Electrostatic carrier doping of charge-ordered YbFe₂O₄ thin films using ionic liquids. Applied Physics Express, 2021, 14, 083001.	1.1	0
6	Atomically Architected Silicon Pyramid Single-Crystalline Structure Supporting Epitaxial Material Growth and Characteristic Magnetism. Crystal Growth and Design, 2021, 21, 946-953.	1.4	2
7	Nondeteriorating Verwey Transition in 50 nm Thick Fe₃O₄ Films by Virtue of Atomically Flattened MgO Substrates: Implications for Magnetoresistive Devices. ACS Applied Nano Materials, 2021, 4, 12091-12097.	2.4	4
8	Prominent Verway Transition of Fe3O4 Thin Films Grown on Transferable Hexagonal Boron Nitride. ACS Applied Electronic Materials, 2021, 3, 5031-5036.	2.0	2
9	Catalytic Hydrogen Doping of NdNiO₃ Thin Films under Electric Fields. ACS Applied Materials & Interfaces, 2020, 12, 54955-54962.	4.0	15
10	Investigation of Statistical Metal-Insulator Transition Properties of Electronic Domains in Spatially Confined VO2 Nanostructure. Crystals, 2020, 10, 631.	1.0	14
11	Surface analysis of self-assembled ZnO NiO nanostructures. Surface Science, 2019, 679, 6-10.	0.8	1
12	Three-Dimensional Nanoconfinement Supports Verwey Transition in Fe₃O₄ Nanowire at 10 nm Length Scale. Nano Letters, 2019, 19, 5003-5010.	4.5	14
13	Barrier Formation at the Contacts of Vanadium Dioxide and Transition-Metal Dichalcogenides. ACS Applied Materials & Interfaces, 2019, 11, 36871-36879.	4.0	9
14	Growth of vanadium dioxide thin films on hexagonal boron nitride flakes as transferrable substrates. Scientific Reports, 2019, 9, 2857.	1.6	13
15	Effects of Off-Stoichiometry in the Epitaxial NdNiO₃ Film on the Suppression of Its Metal-Insulator-Transition Properties. ACS Applied Electronic Materials, 2019, 1, 2678-2683.	2.0	13
16	Improving resistance change with temperature and thermal stability in Fe₃O₄ films for high-temperature resistors. Applied Physics Express, 2019, 12, 011003.	1.1	3
17	Correlation between Ni Valence and Resistance Modulation on a SmNiO3 Chemical Transistor. ACS Applied Electronic Materials, 2019, 1, 82-87.	2.0	11
18	Single-step metalâ€“insulator transition in thin film-based vanadium dioxide nanowires with a 20 nm electrode gap. Applied Physics Express, 2019, 12, 025003.	1.1	10

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19	Beyond electrostatic modification: design and discovery of functional oxide phases via ionic-electronic doping. Advances in Physics: X, 2019, 4, 1523686.	1.5	31
20	Gate-Tunable Thermal Metalâ€“Insulator Transition in VO₂ Monolithically Integrated into a WSe₂ Field-Effect Transistor. ACS Applied Materials & Interfaces, 2019, 11, 3224-3230.	4.0	29
21	Morphology of phase-separated VO2 films deposited on TiO2-(001) substrate. Materials Research Bulletin, 2018, 102, 289-293.	2.7	7
22	Electric transport properties for three-dimensional angular-interconnects of Au wires crossing facet edges of atomically-flat Si{111} surfaces. Japanese Journal of Applied Physics, 2018, 57, 090303.	0.8	5
23	Arrangement of self-assembled ZnO-NiO nanostructures using topographical templates towards oxide directed self-assembly. AIP Advances, 2018, 8, 115029.	0.6	2
24	Enhancement of electronic-transport switching in single-crystal narrower VO2 nanowire channels through side-gate electric fields. Applied Physics Letters, 2018, 113, .	1.5	6
25	Formation of single-crystal VO₂ thin films on MgO(110) substrates using ultrathin TiO₂ buffer layers. Applied Physics Express, 2018, 11, 085503.	1.1	5
26	Research Update: Nanoscale electrochemical transistors in correlated oxides. APL Materials, 2017, 5, .	2.2	6
27	Epitaxial crystallization of self-assembled ZnOâ€“NiO nanopillar system. Applied Physics Express, 2017, 10, 075501.	1.1	4
28	Joule-heat-driven high-efficiency electronic-phase switching in freestanding VO₂/TiO₂ nanowires. Applied Physics Express, 2017, 10, 033201.	1.1	7
29	Direct observation for atomically flat and ordered vertical {111} side-surfaces on three-dimensionally figured Si(110) substrate using scanning tunneling microscopy. Japanese Journal of Applied Physics, 2017, 56, 111301.	0.8	8
30	Selective High-Frequency Mechanical Actuation Driven by the VO2 Electronic Instability. Advanced Materials, 2017, 29, 1701618.	11.1	32
31	Enhanced electronic-transport modulation in single-crystalline VO2 nanowire-based solid-state field-effect transistors. Scientific Reports, 2017, 7, 17215.	1.6	13
32	Self-assembled Nanocomposite Oxide Films. , 2017, , 139-163.		0
33	Enhancement of discrete changes in resistance in engineered VO₂heterointerface nanowall wire. Applied Physics Express, 2017, 10, 115001.	1.1	8
34	Impact of parylene-C thickness on performance of KTaO3 field-effect transistors with high-<i>k</i> oxide/parylene-C hybrid gate dielectric. Journal of Applied Physics, 2016, 119, .	1.1	5
35	Electric field-induced transport modulation in VO₂ FETs with high-<i>k</i> oxide/organic parylene-C hybrid gate dielectric. Applied Physics Letters, 2016, 108, 053503.	1.5	15
36	Methods of creating and observing atomically reconstructed vertical Si{100}, {110}, and {111} side-surfaces. Applied Physics Express, 2016, 9, 085501.	1.1	8

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37	Creation of atomically flat Si{111}7 Ã— 7 side-surfaces on a three-dimensionally-architected Si(110) substrate. Surface Science, 2016, 644, 86-90.	0.8	10
38	Influence of thermal boundary conditions on the current-driven resistive transition in VO2 microbridges. Applied Physics Letters, 2015, 107, .	1.5	8
39	Visualization of local phase transition behaviors near dislocations in epitaxial VO2/TiO2 thin films. Applied Physics Letters, 2015, 107, .	1.5	15
40	Electrochemical gating-induced reversible and drastic resistance switching in VO2 nanowires. Scientific Reports, 2015, 5, 17080.	1.6	29
41	3D-Architected and Integrated Metal Oxide Nanostructures and Beyond Produced by Three-Dimensional Nanotemplate Pulsed Laser Deposition. E-Journal of Surface Science and Nanotechnology, 2015, 13, 279-283.	0.1	10
42	Discrimination between gate-induced electrostatic and electrochemical characteristics in insulator-to-metal transition of manganite thin films. Applied Physics Express, 2015, 8, 073201.	1.1	6
43	Fractal Nature of Metallic and Insulating Domain Configurations in a VO2 Thin Film Revealed by Kelvin Probe Force Microscopy. Scientific Reports, 2015, 5, 10417.	1.6	38
44	Epitaxial Growth of Oxide Films andÂNanostructures. , 2015, , 555-604.		4
45	Multistep metal insulator transition in VO2 nanowires on Al2O3 (0001) substrates. Applied Physics Letters, 2014, 104, .	1.5	20
46	Nonvolatile Transport States in Ferrite Thin Films Induced by Fieldâ€Effect Involving Redox Processes. Advanced Materials Interfaces, 2014, 1, 1300108.	1.9	14
47	Formation mechanism of a microscale domain and effect on transport properties in strained<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">VO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>thin films on<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:msub><mml:mi mathvariant="normal">TiO</mml:mi><mml:mn>2</mml:mn></mml:msub></mml:math>(001). Physical Review B, 2014, 90, .	1.1	32
48	Artificial three dimensional oxide nanostructures for high performance correlated oxide nanoelectronics. Japanese Journal of Applied Physics, 2014, 53, 05FA10.	0.8	6
49	Fabrication of three-dimensional epitaxial (Fe,Zn)₃O₄nanowall wire structures and their transport properties. Applied Physics Express, 2014, 7, 045201.	1.1	14
50	Metalâ€“insulator transition in free-standing VO2/TiO2 microstructures through low-power Joule heating. Applied Physics Express, 2014, 7, 023201.	1.1	12
51	Electrical switching to probe complex phases in a frustrated manganite. Solid State Communications, 2014, 187, 64-67.	0.9	1
52	Dual field effects in electrolyte-gated spinel ferrite: electrostatic carrier doping and redox reactions. Scientific Reports, 2014, 4, 5818.	1.6	18
53	Programmable Mechanical Resonances in MEMS by Localized Joule Heating of Phase Change Materials. Advanced Materials, 2013, 25, 6430-6435.	11.1	44
54	Epitaxial inversion on ferromagnetic (Fe,Zn)3O4 /ferroelectric BiFeO3 core-shell nanodot arrays using three dimensional nano-seeding assembly. Journal of Applied Physics, 2013, 113, .	1.1	12

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55	Nanowall-Shaped MgO Substrate with Flat (100) Sidesurface: A New Route to Three-Dimensional Functional Oxide Nanostructured Electronics. Japanese Journal of Applied Physics, 2013, 52, 015001.	0.8	20
56	Unstrained Epitaxial Zn-Substituted Fe3O4Films for Ferromagnetic Field-Effect Transistors. Japanese Journal of Applied Physics, 2013, 52, 068002.	0.8	6
57	Manipulation of metal-insulator transition characteristics in aspect ratio-controlled VO2 micro-scale thin films on TiO2 (001) substrates. Applied Physics Letters, 2013, 102, 153106.	1.5	18
58	Controlled fabrication of artificial ferromagnetic (Fe,Mn)₃O₄nanowall-wires by a three-dimensional nanotemplate pulsed laser deposition method. Nanotechnology, 2012, 23, 485308.	1.3	16
59	Filling-controlled Mott transition in W-doped VO<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:msub><mml:mrow /><mml:mn>2</mml:mn></mml:msub></mml:math>. Physical Review B, 2012, 85, .	1.1	33
60	Metal-insulator transition with multiple micro-scaled avalanches in VO2 thin film on TiO2(001) substrates. Applied Physics Letters, 2012, 100, 173112.	1.5	38
61	Direct observation of giant metallic domain evolution driven by electric bias in VO2 thin films on TiO2(001) substrate. Applied Physics Letters, 2012, 101, .	1.5	31
62	Tuning metal-insulator transition by one dimensional alignment of giant electronic domains in artificially size-controlled epitaxial VO2 wires. Applied Physics Letters, 2012, 101, 263111.	1.5	20
63	Self-Assembled Growth of Spinel (Fe,Zn)$_{3}$O$_{4}$â€“Perovskite BiFeO$_{3}$ Nanocomposite Structures Using Pulsed Laser Deposition. Japanese Journal of Applied Physics, 2012, 51, 035504.	0.8	4
64	ZnO Nanobox Luminescent Source Fabricated by Three-Dimensional Nanotemplate Pulsed-Laser Deposition. Applied Physics Express, 2012, 5, 125203.	1.1	15
65	Multistate Memory Devices Based on Freeâ€standing VO₂/TiO₂ Microstructures Driven by Joule Selfâ€Heating. Advanced Materials, 2012, 24, 2929-2934.	11.1	156
66	Self-Assembled Growth of Spinel (Fe,Zn)3O4â€“Perovskite BiFeO3Nanocomposite Structures Using Pulsed Laser Deposition. Japanese Journal of Applied Physics, 2012, 51, 035504.	0.8	0
67	Enhancement of Spin Polarization in a Transition Metal Oxide Ferromagnetic Nanodot Diode. Nano Letters, 2011, 11, 343-347.	4.5	20
68	Direct fabrication of integrated 3D epitaxial functional transition metal oxide nanostructures using extremely small hollow nanopillar nano-imprint metal masks. Nanotechnology, 2011, 22, 185306.	1.3	13
69	Preparation of ferroelectric field effect transistor based on sustainable strongly correlated (Fe,Zn)3O4 oxide semiconductor and their electrical transport properties. Applied Physics Letters, 2011, 98, 102506.	1.5	12
70	Identifying valence band structure of transient phase in VO2thin film by hard x-ray photoemission. Physical Review B, 2011, 84, .	1.1	21
71	High Temperature-Coefficient of Resistance at Room Temperature in W-Doped VO₂ Thin Films on Al₂O₃ Substrate and Their Thickness Dependence. Japanese Journal of Applied Physics, 2011, 50, 055804.	0.8	22
72	High Temperature-Coefficient of Resistance at Room Temperature in W-Doped VO₂Thin Films on Al₂O₃Substrate and Their Thickness Dependence. Japanese Journal of Applied Physics, 2011, 50, 055804.	0.8	16

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73	Electronic Structure of W-Doped VO₂Thin Films with Giant Metalâ€“Insulator Transition Investigated by Hard X-ray Core-Level Photoemission Spectroscopy. Applied Physics Express, 2010, 3, 063201.	1.1	22
74	Photocurable Silsesquioxane-Based Formulations as Versatile Resins for Nanoimprint Lithography. Langmuir, 2010, 26, 14915-14922.	1.6	33
75	Fabrication of Single Crystalline (La,Ba)MnO₃Nanodot Array by Mo/SiO_{<i>x</i>}Lift-Off Technique. Japanese Journal of Applied Physics, 2009, 48, 116511.	0.8	3
76	Magnetic properties of the integrated (Fe, M)3O4 (M=Mn and Zn) nano-array structures in large area prepared by Nanoimprint lithography with Mo lift-off technique. Solid State Communications, 2009, 149, 729-733.	0.9	4
77	Controlled Fabrication of Epitaxial (Fe,Mn)₃O₄ Artificial Nanowire Structures and their Electric and Magnetic Properties. Nano Letters, 2009, 9, 1962-1966.	4.5	23
78	Epitaxial Nanodot Arrays of Transitionâ€Metal Oxides Fabricated by Dry Deposition Combined with a Nanoimprintâ€Lithographyâ€Based Molybdenum Liftâ€Off Technique. Small, 2008, 4, 1661-1665.	5.2	17
79	Ferromagnetic oxide Schottky diode of (Fe, Mn)3O4/Nb:SrTiO3 heterostructure with strongly correlated electrons. Solid State Communications, 2008, 147, 397-400.	0.9	7
80	Electronic structures ofFe3âˆ’xMxO4(M=Mn,Zn)spinel oxide thin films investigated by x-ray photoemission spectroscopy and x-ray magnetic circular dichroism. Physical Review B, 2007, 76, .	1.1	83
81	Interface effect on metal-insulator transition of strained vanadium dioxide ultrathin films. Journal of Applied Physics, 2007, 101, 026103.	1.1	77
82	Investigation on Ce-doped LnMnO3 (, Nd) thin films by laser molecular beam epitaxy method. Vacuum, 2006, 80, 780-782.	1.6	2
83	Fe3âˆ’xZnxO4 thin film as tunable high Curie temperature ferromagnetic semiconductor. Applied Physics Letters, 2006, 89, 242507.	1.5	84
84	Fabrication of sub-50nm (La,Ba)MnO3 ferromagnetic nanochannels by atomic force microscopy lithography and their electrical properties. Applied Physics Letters, 2006, 89, 163113.	1.5	14
85	Structural and magnetic properties of Nd0.7Ce0.3MnO3 thin films. Journal of Applied Physics, 2006, 99, 053908.	1.1	10
86	Nanoscale patterning of (La,Pr,Ca)MnO3 thin film using atomic force microscopy lithography and their electrical properties. Journal of Applied Physics, 2006, 100, 124316.	1.1	12
87	Electronic structure of strained(La0.85Ba0.15)MnO3thin films with room-temperature ferromagnetism investigated by hard x-ray photoemission spectroscopy. Physical Review B, 2006, 73, .	1.1	40
88	Electric control of room temperature ferromagnetism in a Pb(Zr0.2Ti0.8)O3âˆ•La0.85Ba0.15MnO3 field-effect transistor. Applied Physics Letters, 2006, 89, 242506.	1.5	61
89	Digitalized magnetoresistance observed in (La,Pr,Ca)MnO3 nanochannel structures. Applied Physics Letters, 2006, 89, 253121.	1.5	33
90	Transport and magnetic properties of Ce-doped LaMnO3 thin films. Applied Surface Science, 2005, 244, 355-358.	3.1	3

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91	Transport and magnetic properties of La0.9Ce0.1MnO3 thin films. Journal of Applied Physics, 2005, 97, 033905.	1.1	21
92	Hall effect in strainedLa0.85Ba0.15MnO3thin films. Physical Review B, 2005, 71, .	1.1	28
93	Preparation of highly conductive Mn-doped Fe3O4 thin films with spin polarization at room temperature using a pulsed-laser deposition technique. Applied Physics Letters, 2005, 86, 222504.	1.5	92
94	Atomic force microscope lithography in perovskite manganite La0.8Ba0.2MnO3 films. Journal of Applied Physics, 2004, 95, 7091-7093.	1.1	22
95	La0.7Ce0.3MnO3 epitaxial films fabricated by a pulsed laser deposition method. Solid State Communications, 2004, 129, 785-790.	0.9	27
96	Metal-insulator transition and ferromagnetism phenomena inLa0.7Ce0.3MnO3thin films:â€ƒ Formation of Ce-rich nanoclusters. Physical Review B, 2004, 70, .	1.1	45
97	Nanoscale modification of electrical and magnetic propertiesof Fe3O4 thin film by atomic force microscopy lithography. Applied Physics Letters, 2004, 85, 1811-1813.	1.5	19
98	Nanoscale observation of room-temperature ferromagnetism on ultrathin (La,Ba)MnO3 films. Applied Physics Letters, 2003, 83, 1184-1186.	1.5	31
99	Electrical-field control of metalâ€"insulator transition at room temperature in Pb(Zr0.2Ti0.8)O3/La1â^'xBaxMnO3 field-effect transistor. Applied Physics Letters, 2003, 83, 4860-4862.	1.5	81
100	Rectifying characteristic in all-perovskite oxide film p-n junction with room temperature ferromagnetism. Applied Physics Letters, 2002, 80, 4378-4380.	1.5	70
101	Giant Electric Field Modulation of Double Exchange Ferromagnetism at Room Temperature in the Perovskite Manganite/Titanatepâ^'nJunction. Physical Review Letters, 2001, 88, 027204.	2.9	322
102	The Control of Cluster-Glass Transition Temperature in Spinel-Type ZnFe2O4-Î´ Thin Film. Japanese Journal of Applied Physics, 2001, 40, L545-L547.	0.8	51
103	Strain effect and the phase diagram ofLa1â^'xBaxMnO3thin films. Physical Review B, 2001, 64, .	1.1	189
104	Anomalous strain effect inLa0.8Ba0.2MnO3epitaxial thin film:â€ƒRole of the orbital degree of freedom in stabilizing ferromagnetism. Physical Review B, 2001, 64, .	1.1	105
105	Dependence of carrier doping level on the photo control of (La,â€ŠSr)MnO3/SrTiO3 functional heterojunction. Journal of Applied Physics, 2001, 90, 4578-4582.	1.1	33
106	Photocarrier injection effect on double exchange ferromagnetism in (La,â€ŠSr)MnO3/SrTiO3 heterostructure. Applied Physics Letters, 2000, 76, 3245-3247.	1.5	83