Shoichiro Nakao

List of Publications by Year
in descending order

48 papers	1,107 citations	430874 18 h-index	395702 33 g-index
48 all docs	48 docs citations	48 times ranked	1481 citing authors

#	Article	IF	Citations
1	Properties of TiO₂â€based transparent conducting oxides. Physica Status Solidi (A) Applications and Materials Science, 2010, 207, 1529-1537.	1.8	165
2	Electronic Band Structure of Transparent Conductor: Nb-Doped Anatase TiO2. Applied Physics Express, 2008, 1, 111203.	2.4	134
3	Direct growth of transparent conducting Nb-doped anatase TiO2 polycrystalline films on glass. Journal of Applied Physics, 2009, 105, .	2.5	70
4	Low-temperature Fabrication of Transparent Conducting Anatase Nb-doped TiO2Films by Sputtering. Applied Physics Express, 2008, 1, 115001.	2.4	69
5	Large electron mass anisotropy in a<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>d</mml:mi></mml:math>-electron-based transparent conducting oxide: Nb-doped anatase<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msub><mml:mrow><mml:mtext>TiO</mml:mtext></mml:mrow><mml:mn>2</mml:mn></mml:ms films. Physical Review B, 2009, 79, .	3.2	63
6	Intrinsic high electrical conductivity of stoichiometric<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mrow><mml:mi>SrNb</mml:mi><mml:msub><mml:mi mathvariant="normal">O</mml:mi><mml:mn>3</mml:mn></mml:msub></mml:mrow></mml:math>epitaxial thin films. Physical Review B, 2015, 92, .	3.2	58
7	Transparent conducting Nb-doped anatase TiO2 (TNO) thin films sputtered from various oxide targets. Thin Solid Films, 2010, 518, 3101-3104.	1.8	51
8	High Mobility Exceeding 80 cm2V-1s-1in Polycrystalline Ta-Doped SnO2Thin Films on Glass Using Anatase TiO2Seed Layers. Applied Physics Express, 2010, 3, 031102.	2.4	44
9	High-Mobility Electron Conduction in Oxynitride: Anatase TaON. Chemistry of Materials, 2014, 26, 976-981.	6.7	42
10	Fabrication of highly conductive Ta-doped SnO2 polycrystalline films on glass using seed-layer technique by pulse laser deposition. Thin Solid Films, 2010, 518, 3093-3096.	1.8	34
11	Fabrication of transparent conductive Wâ€doped SnO₂ thin films on glass substrates using anatase TiO₂ seed layers. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 543-545.	0.8	25
12	Transparent conductivity of fluorine-doped anatase TiO2 epitaxial thin films. Journal of Applied Physics, 2012, 111, 093528.	2.5	25
13	Lateral Solid-Phase Epitaxy of Oxide Thin Films on Glass Substrate Seeded with Oxide Nanosheets. ACS Nano, 2014, 8, 6145-6150.	14.6	24
14	High mobility approaching the intrinsic limit in Ta-doped SnO2 films epitaxially grown on TiO2 (001) substrates. Scientific Reports, 2020, 10, 6844.	3.3	24
15	Metal-induced solid-phase crystallization of amorphous TiO₂ thin films. Applied Physics Letters, 2012, 101, 052101.	3.3	23
16	Enhanced Carrier Transport in Uniaxially (001)-Oriented Anatase Ti0.94Nb0.06O2Films Grown on Nanosheet Seed Layers. Applied Physics Express, 2011, 4, 045801.	2.4	21
17	Amorphous ZnO<i>x</i>Ny thin films with high electron Hall mobility exceeding 200â€‰cm2 Vâˆ’1 sâˆ’1. Applied Physics Letters, 2016, 109, .	3.3	19
18	Anion-Substitution-Induced Nonrigid Variation of Band Structure in SrNbO_{3â€"<i>x</i>}N_{<i>x</i>} (0 â‰ <i>x</i> â‰ 1) Epitaxial Thin Films. ACS Applied Materials & Interfaces, 2018, 10, 35008-35015.	8.0	19

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19	Carrier Compensation by Excess Oxygen Atoms in Anatase Ti_{0.94}Nb_{0.06}O_{2+Î´} Epitaxial Thin Films. Japanese Journal of Applied Physics, 2010, 49, 041102.	1.5	18
20	Application of sputter-deposited amorphous and anatase TiO2 as electron-collecting layers in inverted organic photovoltaics. Organic Electronics, 2013, 14, 1715-1719.	2.6	18
21	Sputter Deposition of High-Mobility Sn_{1-x}Ta_xO₂ Films on Anatase-TiO₂-Coated Glass. Japanese Journal of Applied Physics, 2010, 49, 108002.	1.5	12
22	Composition-induced structural, electrical, and magnetic phase transitions in <i>AX</i>-type mixed-valence cobalt oxynitride epitaxial thin films. Applied Physics Letters, 2015, 107, .	3.3	12
23	Wet Etching of Amorphous TiO₂ Thin Films Using H₃PO₄â€“H₂O₂ Aqueous Solution. Japanese Journal of Applied Physics, 2013, 52, 098002.	1.5	11
24	Electron localization induced by intrinsic anion disorder in a transition metal oxynitride. Communications Physics, 2021, 4, .	5.3	9
25	Crystallization Kinetics of Amorphous Sputtered Nb-Doped TiO$_{2}$ Thin Films. Applied Physics Express, 2011, 4, 105601.	2.4	8
26	Carrier generation mechanism and effect of tantalum-doping in transparent conductive amorphous SnO₂thin films. Japanese Journal of Applied Physics, 2014, 53, 05FX04.	1.5	8
27	Indiumâ€Free Inverted Organic Solar Cells Using Niobiumâ€Doped Titanium Oxide with Integrated Dual Function of Transparent Electrode and Electron Transport Layer. Advanced Electronic Materials, 2016, 2, 1500341.	5.1	8
28	(TiO₂)_{1â€“<i>x</i>}(TaON)_{<i>x</i>} Solid Solution for Band Engineering of Anatase TiO₂. Chemistry of Materials, 2018, 30, 8789-8794.	6.7	8
29	Ligand Fieldâ€Induced Exotic Dopant for Infrared Transparent Electrode: W in Rutile SnO₂. Advanced Functional Materials, 2022, 32, .	14.9	8
30	Epitaxial Growth of Baddeleyite NbON Thin Films on Yttria-stabilized Zirconia by Pulsed Laser Deposition. Chemistry Letters, 2018, 47, 65-67.	1.3	7
31	High-Quality Heteroepitaxial Growth of Thin Films of the Perovskite Oxynitride CaTaO₂N: Importance of Interfacial Symmetry Matching between Films and Substrates. ACS Omega, 2020, 5, 13396-13402.	3.5	7
32	Spectral Splitting Solar Cells Constructed with InGaP/GaAs Two-Junction Subcells and Infrared PbS Quantum Dot/ZnO Nanowire Subcells. ACS Energy Letters, 2022, 7, 2477-2485.	17.4	7
33	Strain-enhanced topotactic hydrogen substitution for oxygen in SrTiO3 epitaxial thin film. Applied Physics Letters, 2018, 113, .	3.3	6
34	Wet Etching of TiO₂-Based Precursor Amorphous Films for Transparent Electrodes. Japanese Journal of Applied Physics, 2011, 50, 018002.	1.5	6
35	Wet Etching of TiO₂-Based Precursor Amorphous Films for Transparent Electrodes. Japanese Journal of Applied Physics, 2011, 50, 018002.	1.5	5
36	c-axis-oriented growth of anatase TiO2 thin films on glass substrate with SrTiO3/TiN template. Journal of Crystal Growth, 2013, 376, 66-69.	1.5	5

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37	TiO2 thin film crystallization temperature lowered by Cu-induced solid phase crystallization. Thin Solid Films, 2014, 553, 17-20.	1.8	5
38	Highâ€Mobility and Airâ€Stable Amorphous Semiconductor Composed of Earthâ€Abundant Elements: Amorphous Zinc Oxysulfide. Advanced Electronic Materials, 2020, 6, 1900602.	5.1	5
39	Effects of reductive annealing on insulating polycrystalline thin films of Nb-doped anatase TiO₂: recovery of high conductivity. Journal of Semiconductors, 2016, 37, 022001.	3.7	4
40	Structural, electrical, and optical properties of polycrystalline NbO₂ thin films grown on glass substrates by solid phase crystallization. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600604.	1.8	4
41	Epitaxial growth of indium oxyfluoride thin films by reactive pulsed laser deposition: Structural change induced by fluorine insertion into vacancy sites in bixbyite structure. Thin Solid Films, 2014, 559, 96-99.	1.8	3
42	Low temperature epitaxial growth of anatase TaON using anatase TiO₂seed layer. Japanese Journal of Applied Physics, 2015, 54, 080303.	1.5	3
43	Enhanced Electrical Conduction in Anatase TaON via Soft Chemical Lithium Insertion toward Electronics Application. ACS Applied Nano Materials, 2018, 1, 3981-3985.	5.0	3
44	TiO₂/<scp>TNO</scp> homojunction introduced in a dyeâ€sensitized solar cell with a novel <scp>TNO</scp> transparent conductive oxide film. Journal of the American Ceramic Society, 2018, 101, 5071-5079.	3.8	3
45	Fabrication of Nb-Doped TiO₂Transparent Conducting Films by Postdeposition Annealing under Nitrogen Atmosphere. Japanese Journal of Applied Physics, 2012, 51, 118003.	1.5	3
46	Effect of micromorphology on transport properties of Nbâ€doped anatase TiO₂ films: A transmission electron microscopy study. Physica Status Solidi (A) Applications and Materials Science, 2017, 214, 1600606.	1.8	1
47	Electrical and Structural Properties of Ta-doped SnO2 Transparent Conductive Thin Films by Pulsed Laser Deposition. Materials Research Society Symposia Proceedings, 2014, 1604, 1.	0.1	0
48	Fabrication of textured SnO2 transparent conductive films using self-assembled Sn nanospheres. Japanese Journal of Applied Physics, 2018, 57, 060307.	1.5	0