

# Ken Watanabe

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/1136804/publications.pdf>

Version: 2024-02-01

40  
papers

512  
citations

687363

13  
h-index

677142

22  
g-index

40  
all docs

40  
docs citations

40  
times ranked

791  
citing authors

#	ARTICLE	IF	CITATIONS
1	Highly Sensitive Carbon Monoxide Sensor Element with Wide-Range Humidity Resistance by Loading Pd Nanoparticles on SnO <sub>2</sub> Surface. <i>Sensors</i> , 2022, 22, 2934.	3.8	3
2	Lowering the sintering temperature of Li <sub>0.7</sub> La <sub>0.3</sub> Zr <sub>0.2</sub> O <sub>1.2</sub> electrolyte for co-fired all-solid-state batteries via partial Bi substitution and precise control of compositional deviation. <i>Journal of the Ceramic Society of Japan</i> , 2022, 130, 416-423.	1.1	7
3	Highly sensitive isoprene gas sensor using Au-loaded pyramid-shaped ZnO particles. <i>Sensors and Actuators B: Chemical</i> , 2021, 326, 128999.	7.8	53
4	Chemical Activation of Nitrogen-doped Carbon Derived from Chitosan with ZnCl <sub>2</sub> to Produce a High-performance Gas Diffusion-type Oxygen Electrode. <i>Electrochemistry</i> , 2021, 89, 36-42.	1.4	5
5	Impact of Pd nanoparticle loading method on SnO <sub>2</sub> surface for natural gas detection in humid atmosphere. <i>Journal of Materials Science</i> , 2021, 56, 13975-13988.	3.7	7
6	DC-Voltage-Induced High Oxygen Permeation through a Lanthanum Silicate Electrolyte with a Cerium Oxide Thin Film. <i>Electrochemistry</i> , 2021, 89, 427-432.	1.4	0
7	Double-Step Modulation of the Pulse-Driven Mode for a High-Performance SnO <sub>2</sub> Micro Gas Sensor: Designing the Particle Surface via a Rapid Preheating Process. <i>ACS Sensors</i> , 2020, 5, 3449-3456.	7.8	16
8	Selective Detection of Toluene Using Pulse-Driven SnO <sub>2</sub> Micro Gas Sensors. <i>ACS Applied Electronic Materials</i> , 2020, 2, 2913-2920.	4.3	30
9	One-Trillionth Level Toluene Detection Using a Dual-Designed Semiconductor Gas Sensor: Material and Sensor-Driven Designs. <i>ACS Applied Electronic Materials</i> , 2020, 2, 4122-4126.	4.3	8
10	Effect of Boron Substitution on Oxide-Ion Conduction in <i>c</i> -Axis-Oriented Apatite-Type Lanthanum Silicate. <i>Journal of Physical Chemistry C</i> , 2020, 124, 2879-2885.	3.1	11
11	Novel Solid Electrolyte CO <sub>2</sub> Gas Sensors Based on <i>c</i> -Axis-Oriented Y-Doped La <sub>0.66</sub> Si <sub>0.3</sub> B <sub>0.7</sub> O <sub>26.14</sub> . <i>ACS Applied Materials &amp; Interfaces</i> , 2020, 12, 21515-21520.	8.0	11
12	Crystal Growth Mechanism of Highly <i>c</i> -Axis-Oriented Apatite-Type Lanthanum Borosilicate Using B <sub>2</sub> O <sub>3</sub> Vapor. <i>ACS Omega</i> , 2020, 5, 31936-31942.	3.5	3
13	Consideration for Oxygen Adsorption Species on SnO <sub>2</sub> Semiconductor Gas Sensors. <i>Proceedings (mdpi)</i> , 2019, 14, .	0.2	0
14	Ultra-High Sensitive (Ppt) Gas Sensor Based on the Pulse Heating Using MEMS Technique. <i>Proceedings (mdpi)</i> , 2019, 14, .	0.2	0
15	Ultra-High Sensitive Gas Detection Using Pulse-Driven MEMS Sensor Based on Tin Dioxide. , 2019, , .		2
16	Effect of Ambient Oxygen Partial Pressure on the Hydrogen Response of SnO <sub>2</sub> Semiconductor Gas Sensors. <i>Journal of the Electrochemical Society</i> , 2019, 166, B618-B622.	2.9	14
17	Oxygen adsorption on ZrO <sub>2</sub> -loaded SnO <sub>2</sub> gas sensors in humid atmosphere. <i>Journal of Materials Science</i> , 2019, 54, 3135-3143.	3.7	16
18	Oxygen pumping based on <i>c</i> -axis-oriented lanthanum silicate ceramics: challenge toward low operating temperature. <i>Journal of the Ceramic Society of Japan</i> , 2019, 127, 1-4.	1.1	7

#	ARTICLE	IF	CITATIONS
19	Highly Sensitive Ethanol Gas Sensor Using Pyramid-Shaped ZnO Particles with (0001) Basal Plane. <i>Journal of Physical Chemistry C</i> , 2018, 122, 7353-7360.	3.1	46
20	Effect of Humid Aging on the Oxygen Adsorption in SnO <sub>2</sub> Gas Sensors. <i>Sensors</i> , 2018, 18, 254.	3.8	45
21	Pulse-Driven Semiconductor Gas Sensors Toward ppt Level Toluene Detection. <i>Analytical Chemistry</i> , 2018, 90, 11219-11223.	6.5	49
22	Unexpected gas sensing properties of SiO <sub>2</sub> /SnO <sub>2</sub> core-shell nanofibers under dry and humid conditions. <i>Journal of Materials Chemistry C</i> , 2017, 5, 6369-6376.	5.5	30
23	Correlation Between High Gas Sensitivity and Dopant Structure in W-doped ZnO. <i>Physical Review Applied</i> , 2017, 7, .	3.8	15
24	Hydrogen diffusion in the apatite-water system: Fluorapatite parallel to the <i>c</i> -axis. <i>Geochemical Journal</i> , 2017, 51, 115-122.	1.0	17
25	Isotope tracer investigation and ab-initio simulation of anisotropic hydrogen transport and possible multi-hydrogen centers in tin dioxide. <i>Journal of Applied Physics</i> , 2016, 119, 225704.	2.5	4
26	Gas sensing properties of <i>c</i> -axis-oriented Al-incorporated ZnO films epitaxially grown on (11-20) sapphire substrates using pulsed laser deposition. <i>Journal of the Ceramic Society of Japan</i> , 2016, 124, 668-672.	1.1	7
27	Microscopic and Isotope Tracer Study on the Growth of Spherical ZnO Particles in Water-Ethylene Glycol Solvent. <i>Crystal Growth and Design</i> , 2015, 15, 2609-2619.	3.0	11
28	Effects of dielectric film surface on oxygen diffusion. <i>Journal of the Ceramic Society of Japan</i> , 2014, 122, 410-414.	1.1	1
29	Solvothermal synthesis of ZnO spherical particles and VOC sensor application. <i>Journal of the Ceramic Society of Japan</i> , 2014, 122, 488-491.	1.1	10
30	Annealing effect on microstructure of ZnO nano-particulate films and VOC gas sensing property. <i>Journal of the Ceramic Society of Japan</i> , 2014, 122, 267-270.	1.1	4
31	Electrical properties of scandium nitride epitaxial films grown on (100) magnesium oxide substrates by molecular beam epitaxy. <i>Journal of Applied Physics</i> , 2013, 114, .	2.5	30
32	Oxygen Diffusion Phenomena and Hydrogen Incorporation in Reducing BaTiO <sub>3</sub> Ceramics Doped with Ho below Solubility Limit. <i>Japanese Journal of Applied Physics</i> , 2012, 51, 101801.	1.5	2
33	Development of ZnO-based surface plasmon resonance gas sensor and analysis of UV irradiation effect on NO <sub>2</sub> desorption from ZnO thin films. <i>Journal of the Ceramic Society of Japan</i> , 2010, 118, 193-196.	1.1	18
34	Ion implantation and diffusion behavior of silver in zinc oxide. <i>Journal of the Ceramic Society of Japan</i> , 2010, 118, 217-219.	1.1	12
35	Oxygen tracer diffusion in magnesium-doped ZnO ceramics. <i>Journal of the Ceramic Society of Japan</i> , 2010, 118, 362-365.	1.1	10
36	Microstructure Effect on the Oxygen Permeation through Ba <sub>0.95</sub> La <sub>0.05</sub> FeO <sub>3-<math>\delta</math></sub> Membranes Fabricated by Different Methods. <i>Journal of the American Ceramic Society</i> , 2010, 93, 2012-2017.	3.8	2

#	ARTICLE	IF	CITATIONS
37	Relationship between Aluminum and Lithium and Annealing for Reducing Lithium Contamination in Aluminum-Implanted Zinc Oxide. Key Engineering Materials, 2010, 445, 205-208.	0.4	2
38	Effect of Annealing Atmosphere on Oxygen Diffusion through Ba-Fe-Based Perovskite Oxide. Key Engineering Materials, 0, 485, 141-144.	0.4	1
39	Oxygen Tracer Diffusion in BaTiO <sub>3</sub> ; Ceramics - Effect of Zr Impurity from Planetary Ball Milling. Key Engineering Materials, 0, 566, 262-265.	0.4	3
40	Oxygen Tracer Diffusion in A-Axis Oriented ZnO Thin Films Grown on (01-12) Sapphire by Pulsed Laser Deposition. Key Engineering Materials, 0, 566, 266-270.	0.4	0