

# Masateru Nishioka

## List of Publications by Year in Descending Order

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**Version:** 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

68  
papers

1,151  
citations

19  
h-index

31  
g-index

70  
ext. papers

1,268  
ext. citations

3.9  
avg, IF

3.94  
L-index

#	Paper	IF	Citations
68	Microwave-assisted Green Synthesis of Mesoporous Zeolite Adsorbents for Direct Air Capture of CO <sub>2</sub> . <i>Chemistry Letters</i> , <b>2022</b> , 51, 296-299	1.7	3
67	microwave heating fabrication of copper nanoparticles inside cotton fiber using pressurization in immiscible liquids with raw material solutions.. <i>RSC Advances</i> , <b>2021</b> , 11, 32541-32548	3.7	1
66	Cylindrical Resonator-Type Microwave Heating Reactor with Real-Time Monitoring Function of Dielectric Property Applied to Drying Processes. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2021</b> , 60, 9119-9127	3.9	1
65	Rapid control of hydrogen permeation in Pd membrane reactor by magnetic-field-induced heating under microwave irradiation. <i>International Journal of Hydrogen Energy</i> , <b>2021</b> , 46, 20213-20221	6.7	5
64	Functional Particle Synthesis Method inside Natural Fibers with Hollow Structure. <i>Journal of Textile Engineering</i> , <b>2021</b> , 67, 105-109	0.3	
63	In-situ Fabrication of Functional Materials inside Porous Fiber using Microwave Selective Heating. <i>Chemistry - an Asian Journal</i> , <b>2020</b> , 15, 1937-1940	4.5	2
62	Investigation of the Thermal Properties of Electrodes on the Film and Its Heating Behavior Induced by Microwave Irradiation in Mounting Processes. <i>Processes</i> , <b>2020</b> , 8, 557	2.9	3
61	Template-free mesoporous LTA zeolite synthesized using microwave heating in the flow system. <i>Microporous and Mesoporous Materials</i> , <b>2020</b> , 306, 110375	5.3	5
60	Continuous syntheses of carbon-supported Pd and Pd@Pt core-shell nanoparticles using a flow-type single-mode microwave reactor.. <i>RSC Advances</i> , <b>2020</b> , 10, 6571-6575	3.7	8
59	Reforming of Methane Using Single-mode Microwave Irradiation Heating in a Cylindrical Cavity. <i>Journal of the Japan Petroleum Institute</i> , <b>2020</b> , 63, 315-321	1	1
58	Ultra-fast pyrolysis of lignocellulose using highly tuned microwaves: synergistic effect of a cylindrical cavity resonator and a frequency-auto-tracking solid-state microwave generator. <i>Green Chemistry</i> , <b>2020</b> , 22, 342-351	10	18
57	Real-Time Facile Detection of the WO Catalyst Oxidation State under Microwaves Using a Resonance Frequency. <i>ACS Omega</i> , <b>2020</b> , 5, 31957-31962	3.9	3
56	Sheet-Type Flow Process Using Magnetic-Field-Induced Heating with Single-Mode Microwaves Applied to a Continuous Metal Nanoparticle Synthesis. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2020</b> , 59, 20447-20454	3.9	5
55	Novel Sensing Technology for Real-Time Detection of Carbon Deposition on a Solid Catalyst Using the Resonance Frequency Shift of Single-Mode Microwave. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2019</b> , 58, 13007-13012	3.9	5
54	Development of Elemental Technology for Arbitrary Shape IoT Sensor and Its Future Development of the Technology. <i>Journal of Japan Institute of Electronics Packaging</i> , <b>2019</b> , 22, 476-479	0.1	
53	Direct decomposition of NO on metal-loaded zeolites with coexistence of oxygen and water vapor under unsteady-state conditions by NO concentration and microwave rapid heating. <i>Catalysis Today</i> , <b>2017</b> , 281, 566-574	5.3	13
52	Continuous syntheses of Pd@Pt and Cu@Ag core-shell nanoparticles using microwave-assisted core particle formation coupled with galvanic metal displacement. <i>Nanoscale</i> , <b>2014</b> , 6, 8720-5	7.7	43

51	Controlled Heating of Palladium Dispersed Porous Alumina Tube and Continuous Oxidation of Ethylene Using Frequency-Variable Single-Mode Microwave Reactor. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2014</b> , 53, 1073-1078	3.9	12
50	Single-Mode Microwave Reactor Used for Continuous Flow Reactions under Elevated Pressure. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2013</b> , 52, 4683-4687	3.9	53
49	Thermometer-free Detection and Control of Temperature for Microwave-assisted Flow Reactions. <i>Chemistry Letters</i> , <b>2013</b> , 42, 1096-1098	1.7	4
48	Synthesis of Ca <sub>0.8</sub> Sr <sub>0.2</sub> Ti <sub>0.7</sub> Fe <sub>0.3</sub> O <sub>3</sub> thin film membranes and its application to the partial oxidation of methane. <i>Solid State Ionics</i> , <b>2012</b> , 221, 43-49	3.3	14
47	Influence of CO <sub>2</sub> and H <sub>2</sub> O on the separation of hydrogen over two types of Pd membranes: Thin metal membrane and pore-filling-type membrane. <i>Journal of Membrane Science</i> , <b>2012</b> , 415-416, 85-92	9.6	10
46	Continuous synthesis of monodispersed silver nanoparticles using a homogeneous heating microwave reactor system. <i>Nanoscale</i> , <b>2011</b> , 3, 2621-6	7.7	69
45	Rapid and Continuous Polyol Process for Platinum Nanoparticle Synthesis Using a Single-mode Microwave Flow Reactor. <i>Chemistry Letters</i> , <b>2011</b> , 40, 1327-1329	1.7	15
44	Facile and Continuous Synthesis of Ag@SiO <sub>2</sub> CoreShell Nanoparticles by a Flow Reactor System Assisted with Homogeneous Microwave Heating. <i>Chemistry Letters</i> , <b>2011</b> , 40, 1204-1206	1.7	25
43	Pd membrane with low metal content for hydrogen separation and a catalytic membrane reactor combined with a microwave heating system. <i>Transactions of the Materials Research Society of Japan</i> , <b>2011</b> , 36, 221-224	0.2	1
42	Rapid Adsorption of Rh(III) by Polyamine-functionalized Cellulose Fiber Combined with Microwave Irradiation. <i>Chemistry Letters</i> , <b>2010</b> , 39, 1317-1318	1.7	9
41	Ozone-oxygen gas enhanced passivation of pure iron. <i>Electrochimica Acta</i> , <b>2010</b> , 55, 4685-4693	6.7	4
40	Formation of high flux CHA-type zeolite membranes and their application to the dehydration of alcohol solutions. <i>Journal of Membrane Science</i> , <b>2010</b> , 364, 318-324	9.6	61
39	Influence of synthesis gel composition on morphology, composition, and dehydration performance of CHA-type zeolite membranes. <i>Journal of Membrane Science</i> , <b>2010</b> , 363, 256-264	9.6	28
38	Palladium-based bifunctional membrane reactor for one-step conversion of benzene to phenol and cyclohexanone. <i>Catalysis Today</i> , <b>2010</b> , 156, 276-281	5.3	26
37	Direct production of hydrogen peroxide from oxygen and hydrogen applying membrane-permeation mechanism. <i>Chemical Engineering Science</i> , <b>2010</b> , 65, 436-440	4.4	25
36	Formation of Self-Ordered TiO <sub>2</sub> Nanotubes by Electrochemical Anodization of Titanium in 2-Propanol/NH <sub>4</sub> F. <i>Journal of the Electrochemical Society</i> , <b>2009</b> , 156, K227	3.9	12
35	The Direct Synthesis of Hydrogen Peroxide (ca. 5 wt %) from Hydrogen and Oxygen by Microreactor Technology. <i>Chemistry Letters</i> , <b>2009</b> , 38, 820-821	1.7	13
34	Generation of negative ions in the gas phase from a 12CaO·7Al <sub>2</sub> O <sub>3</sub> membrane-coated ceramic heater under atmospheric pressure. <i>Applied Physics Letters</i> , <b>2008</b> , 93, 244101	3.4	

33	Investigating a catalytic mechanism of hyperthermophilic L-threonine dehydrogenase from <i>Pyrococcus horikoshii</i> . <i>Journal of Biochemistry</i> , <b>2008</b> , 144, 77-85	3.1	10
32	High efficiency ester condensation using hydrophobic zeolite membranes. <i>Korean Journal of Chemical Engineering</i> , <b>2008</b> , 25, 437-442	2.8	
31	Alteration of metal ions improves the activity and thermostability of aminoacylase from hyperthermophilic archaeon <i>Pyrococcus horikoshii</i> . <i>Biotechnology Letters</i> , <b>2008</b> , 30, 1639-43	3	4
30	Preparation of $\text{Ca}_{0.8}\text{Sr}_{0.2}\text{Ti}_{1-x}\text{Fe}_x\text{O}_3$ ( $x = 0.1\text{--}0.3$ ) nanoparticles using a flow supercritical reaction system. <i>Journal of Supercritical Fluids</i> , <b>2008</b> , 46, 77-82	4.2	17
29	Stoichiometric Ester Condensation Reaction Processes by Pervaporative Water Removal via Acid-Tolerant Zeolite Membranes. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2007</b> , 46, 3743-3750	3.9	28
28	O <sub>2</sub> emission from $12\text{CaO}\cdot\text{Al}_2\text{O}_3$ and MSZ composite and its application for silicon oxidation. <i>Solid State Ionics</i> , <b>2006</b> , 177, 2235-2239	3.3	14
27	Design of one-component ceramic membrane-reactor for natural gas conversion. <i>Catalysis Today</i> , <b>2006</b> , 117, 297-303	5.3	18
26	Enhancement of $\text{Ca}(\text{OH})_2$ /Fly Ash Sorbent for the Dry-Desulfurization Process. <i>Energy &amp; Fuels</i> , <b>2006</b> , 20, 1901-1905	4.1	3
25	Ester Condensation from a Stoichiometric Mixture of a Carboxylic Acid and an Alcohol at 313 K Assisted by Pervaporation via Zeolite Membranes. <i>Chemistry Letters</i> , <b>2006</b> , 35, 76-77	1.7	8
24	Nanoscale surface properties of iron treated by electrochemical and physico-chemical methods. <i>Current Applied Physics</i> , <b>2006</b> , 6, 448-452	2.6	6
23	Structural changes of a Pd-based membrane during direct hydroxylation of benzene to phenol. <i>Catalysis Today</i> , <b>2006</b> , 118, 57-62	5.3	29
22	Emission characteristics of F <sub>2</sub> ions into vacuum from $\text{CaF}_2$ . <i>Solid State Ionics</i> , <b>2006</b> , 177, 1601-1605	3.3	6
21	Synthesis and oxygen permeation properties of 75 mol% $\text{Ce}_{0.75}\text{Nd}_{0.25}\text{O}_{1.875}$ –25 mol% $\text{Nd}_{1.8}\text{Ce}_{0.2}\text{CuO}_4$ composite. <i>Journal of Solid State Electrochemistry</i> , <b>2006</b> , 10, 629-634	2.6	9
20	Nonpremixed Flamelet Statistics at Flame Base of Lifted Turbulent Jet Nonpremixed Flames. <i>JSME International Journal Series B</i> , <b>2005</b> , 48, 75-82		6
19	A periodic first principle study to design microporous crystal $12\text{MO}$ , $7\text{Al}_2\text{O}_3$ for selective and active O <sub>2</sub> radicals encaging. <i>Chemical Physics Letters</i> , <b>2004</b> , 390, 335-339	2.5	4
18	Novel dry-desulfurization process using $\text{Ca}(\text{OH})_2$ /fly ash sorbent in a circulating fluidized bed. <i>Environmental Science &amp; Technology</i> , <b>2004</b> , 38, 6867-74	10.3	55
17	Selective Generation of O <sup>-</sup> under Atmospheric Pressure. <i>Journal of Chemical Engineering of Japan</i> , <b>2004</b> , 37, 758-763	0.8	2
16	Features and mechanism of atomic oxygen radical anion emission from yttria-stabilized zirconia electrolyte. <i>Journal of Catalysis</i> , <b>2003</b> , 215, 1-6	7.3	14

15	High-intensity atomic oxygen radical anion emission mechanism from $12\text{CaO}\cdot 7\text{Al}_2\text{O}_3$ crystal surface. <i>Surface Science</i> , <b>2003</b> , 527, 100-112	1.8	55
14	Desorption of the $\text{C}_2^-$ Anion from the Au-Deposited $\text{Y}_2\text{O}_3$ -Stabilized $\text{ZrO}_2$ Surface. <i>Journal of Physical Chemistry B</i> , <b>2003</b> , 107, 12465-12471	3-4	
13	Structures of Hydrated Oxygen Anion Clusters: DFT Calculations for $\text{O}-(\text{H}_2\text{O})_n$ , $\text{O}_2-(\text{H}_2\text{O})_n$ , and $\text{O}_3-(\text{H}_2\text{O})_n$ ( $n = 0-4$ ). <i>Journal of Physical Chemistry A</i> , <b>2003</b> , 107, 962-967	2.8	24
12	Gas sensing with zeolite-coated quartz crystal microbalances—principal component analysis approach. <i>Sensors and Actuators B: Chemical</i> , <b>2002</b> , 86, 26-33	8.5	66
11	Sterilization by $\text{H}_2\text{O}_2$ droplets under corona discharge. <i>Journal of Electrostatics</i> , <b>2002</b> , 55, 173-187	1.7	43
10	Emissions of $\text{O}^-$ Radical Anions and Electrons from Silver on a Solid Electrolyte. <i>Journal of Catalysis</i> , <b>2002</b> , 209, 256-259	7-3	8
9	Absolute emission current density of $\text{O}^-$ from $12\text{CaO}\cdot 7\text{Al}_2\text{O}_3$ crystal. <i>Applied Physics Letters</i> , <b>2002</b> , 80, 4259-4261	3-4	74
8	Reproducibility of $\text{O}^-$ Negative Ion Emission from $\text{C}_{12}\text{A}_7$ Crystal Surface. <i>Japanese Journal of Applied Physics</i> , <b>2002</b> , 41, L530-L532	1.4	18
7	Chain Reaction Mechanism by $\text{NO}_x$ in $\text{SO}_2$ Removal Process. <i>Energy &amp; Fuels</i> , <b>2002</b> , 16, 155-160	4-1	30
6	Electric Field Emission of High Density $\text{O}^-$ Ions from $12\text{CaO}\cdot 7\text{Al}_2\text{O}_3$ Engineered to Incorporate Oxygen Radicals. <i>Electrochemical and Solid-State Letters</i> , <b>2002</b> , 5, J13		25
5	Continuous Emission of $\text{O}^-$ Radical Anions from Solid Electrolyte Surface.. <i>Journal of Chemical Engineering of Japan</i> , <b>2000</b> , 33, 557-560	0.8	6
4	Gas-Phase Hydroxyl Radical Emission in the Thermal Decomposition of Lithium Hydroxide. <i>Journal of Physical Chemistry B</i> , <b>1999</b> , 103, 1954-1959	3-4	7
3	Synthesis of a faujasite thin layer and its application for $\text{SO}_2$ sensing at elevated temperatures. <i>Microporous and Mesoporous Materials</i> , <b>1998</b> , 23, 287-294	5-3	38
2	Gas-Phase Hydroxyl Radical Generation by the Surface Reactions over Basic Metal Oxides. <i>Journal of Physical Chemistry B</i> , <b>1998</b> , 102, 3185-3191	3-4	12
1	Micro manipulation of cells and DNA molecules. <i>Journal of Electrostatics</i> , <b>1995</b> , 35, 83-91	1.7	15