

# Makoto Fujimaki

## List of Publications by Year in descending order

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106  
papers

3,477  
citations

218677

26  
h-index

144013

57  
g-index

107  
all docs

107  
docs citations

107  
times ranked

4408  
citing authors

#	ARTICLE	IF	CITATIONS
1	A Plasmonic Photocatalyst Consisting of Silver Nanoparticles Embedded in Titanium Dioxide. <i>Journal of the American Chemical Society</i> , 2008, 130, 1676-1680.	13.7	1,422
2	A high-performance waveguide-mode biosensor for detection of factor IX using PEG-based blocking agents to suppress non-specific binding and improve sensitivity. <i>Analyst, The</i> , 2013, 138, 2863.	3.5	123
3	Fabrication of long-period optical fiber gratings by use of ion implantation. <i>Optics Letters</i> , 2000, 25, 88.	3.3	86
4	Structures and generation mechanisms of paramagnetic centers and absorption bands responsible for Ge-doped SiO <sub>2</sub> optical-fiber gratings. <i>Physical Review B</i> , 1998, 57, 3920-3926.	3.2	85
5	Generation of Anti-Influenza Aptamers Using the Systematic Evolution of Ligands by Exponential Enrichment for Sensing Applications. <i>Langmuir</i> , 2013, 29, 15107-15115.	3.5	85
6	Elongation of gold nanoparticles in silica glass by irradiation with swift heavy ions. <i>Physical Review B</i> , 2008, 78, .	3.2	81
7	An angular fluidic channel for prism-free surface-plasmon-assisted fluorescence capturing. <i>Nature Communications</i> , 2013, 4, 2855.	12.8	73
8	Detection of norovirus virus-like particles using a surface plasmon resonance-assisted fluoroimmunosensor optimized for quantum dot fluorescent labels. <i>Biosensors and Bioelectronics</i> , 2017, 93, 260-266.	10.1	70
9	High sensitivity sensors made of perforated waveguides. <i>Optics Express</i> , 2007, 15, 2592.	3.4	63
10	Structural changes induced by KrF excimer laser photons in H <sub>2</sub> -loaded Ge-doped SiO <sub>2</sub> glass. <i>Physical Review B</i> , 1999, 60, 4682-4687.	3.2	59
11	Silica-based monolithic sensing plates for waveguide-mode sensors. <i>Optics Express</i> , 2008, 16, 6408.	3.4	54
12	Influence of Nanometric Holes on the Sensitivity of a Waveguide-Mode Sensor: Label-Free Nanosensor for the Analysis of RNA Aptamer-Ligand Interactions. <i>Analytical Chemistry</i> , 2008, 80, 6602-6609.	6.5	53
13	Photonic crystal structures in titanium dioxide (TiO <sub>2</sub> ) and their optimal design. <i>Optics Express</i> , 2005, 13, 1486.	3.4	50
14	Observations of Immuno-Gold Conjugates on Influenza Viruses Using Waveguide-Mode Sensors. <i>PLoS ONE</i> , 2013, 8, e69121.	2.5	50
15	Detection of colored nanomaterials using evanescent field-based waveguide sensors. <i>Optics Express</i> , 2010, 18, 15732.	3.4	46
16	Energy states of Ge-doped SiO <sub>2</sub> glass estimated through absorption and photoluminescence. <i>Journal of Applied Physics</i> , 1997, 81, 1042-1046.	2.5	45
17	Structure of latent tracks in rutile single crystal of titanium dioxide induced by swift heavy ions. <i>Journal of Applied Physics</i> , 2006, 100, 044308.	2.5	45
18	Waveguide-Mode Sensors as Aptasensors. <i>Sensors</i> , 2012, 12, 2136-2151.	3.8	44

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19	Evaluation of Anti-A/Udorn/307/1972 Antibody Specificity to Influenza A/H3N2 Viruses Using an Evanescent-Field Coupled Waveguide-Mode Sensor. PLoS ONE, 2013, 8, e81396.	2.5	43
20	Structural change induced inTiO2by swift heavy ions and its application to three-dimensional lithography. Physical Review B, 2003, 68, .	3.2	42
21	Surface functionalization chemistries on highly sensitive silica-based sensor chips. Analyst, The, 2012, 137, 3520.	3.5	39
22	Origin of photoluminescence around 2.6â€“2.9 eV in silicon oxynitride. Applied Physics Letters, 2001, 79, 1995-1997.	3.3	34
23	Neu5Ac1±2,6Gal and Neu5Ac1±2,3Gal receptor specificities on influenza viruses determined by a waveguide-mode sensor. Acta Biomaterialia, 2013, 9, 5080-5087.	8.3	34
24	Ion-implantation-induced densification in silica-based glass for fabrication of optical fiber gratings. Journal of Applied Physics, 2000, 88, 5534-5537.	2.5	32
25	Detection of influenza viruses by a waveguide-mode sensor. Analytical Methods, 2010, 2, 1880.	2.7	32
26	Laser-power dependence of absorption changes in Ge-dopedSiO2glass induced by a KrF excimer laser. Physical Review B, 1996, 53, 9859-9862.	3.2	26
27	Time-resolved photoluminescence study of hydrogenated amorphous silicon nitride. Physical Review B, 2000, 62, 1532-1535.	3.2	26
28	Fabrication of two- and three-dimensional photonic crystals of titania with submicrometer resolution by deep x-ray lithography. Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena, 2005, 23, 934.	1.6	25
29	Real-Time Online Monitoring for Assessing Removal of Bacteria by Reverse Osmosis. Environmental Science and Technology Letters, 2018, 5, 389-393.	8.7	24
30	Evaluation of nucleic acid duplex formation on gold over layers in biosensor fabricated using Czochralski-grown single-crystal silicon substrate. Analytical and Bioanalytical Chemistry, 2010, 398, 751-758.	3.7	23
31	Surface-enhanced Raman scattering from Ag nanoparticles formed by visible laser irradiation of thermally annealed AgOx thin films. Journal of Applied Physics, 2006, 100, 074303.	2.5	21
32	Design and Fabrication of Biosensing Interface for Waveguide-Mode Sensor. Langmuir, 2013, 29, 13111-13120.	3.5	21
33	Temperature dependence of the lifetime of 4.3-eV photoluminescence in oxygen-deficient amorphousSiO2. Physical Review B, 1999, 59, 1590-1593.	3.2	20
34	Microfluidic chips for forward blood typing performed with a multichannel waveguide-mode sensor. Sensing and Bio-Sensing Research, 2016, 7, 121-126.	4.2	20
35	Visible electroluminescence in hydrogenated amorphous silicon oxynitride. Journal of Applied Physics, 2001, 90, 2216-2220.	2.5	19
36	The design of evanescent-field-coupled waveguide-mode sensors. Nanotechnology, 2008, 19, 095503.	2.6	18

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37	Monitoring surface-assisted biomolecular assembly by means of evanescent-field-coupled waveguide-mode nanobiosensors. <i>Analytical and Bioanalytical Chemistry</i> , 2009, 394, 481-488.	3.7	17
38	Optimal design of a spectral readout type planar waveguide-mode sensor with a monolithic structure. <i>Optics Express</i> , 2011, 19, 20205.	3.4	17
39	Biomolecular sensors utilizing waveguide modes excited by evanescent fields. <i>Journal of Microscopy</i> , 2008, 229, 320-326.	1.8	16
40	Nanoscale pore fabrication for high sensitivity waveguide-mode biosensors. <i>Microelectronic Engineering</i> , 2007, 84, 1685-1689.	2.4	15
41	Mechanism of elongation of gold or silver nanoparticles in silica by irradiation with swift heavy ions. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2009, 267, 941-943.	1.4	15
42	Effect of Ozone Annealing on the Charge Trapping Property of Ta <sub>2</sub> O <sub>5</sub> /Si <sub>3</sub> N <sub>4</sub> /p-Si Capacitor Grown by Low-pressure Chemical Vapor Deposition. <i>Japanese Journal of Applied Physics</i> , 1999, 38, 6791-6796.	1.5	14
43	Signal changes for dye-complexed biomolecular interactions on waveguide-sensor chips. <i>Sensors and Actuators B: Chemical</i> , 2011, 155, 239-244.	7.8	13
44	Hemagglutination detection for blood typing based on waveguide-mode sensors. <i>Sensing and Bio-Sensing Research</i> , 2015, 3, 59-64.	4.2	13
45	Paramagnetic centres induced in Ge-doped glass with UV irradiation. <i>Journal of Physics Condensed Matter</i> , 1999, 11, 2589-2594.	1.8	12
46	Photoluminescence Analysis of Plasma-deposited Oxygen-rich Silicon Oxynitride Films. <i>Japanese Journal of Applied Physics</i> , 2000, 39, 6587-6593.	1.5	12
47	Photonic crystals of titanium dioxide fabricated by swift heavy ions. <i>Radiation Measurements</i> , 2005, 40, 722-729.	1.4	12
48	Substrate and laser power dependence of surface-enhanced Raman scattering from a silver oxide film. <i>Nanotechnology</i> , 2006, 17, 1717-1721.	2.6	12
49	Detection of Extremely Low Concentrations of Biological Substances Using Near-Field Illumination. <i>Scientific Reports</i> , 2016, 6, 39241.	3.3	12
50	Effect of annealing on Ge-doped SiO <sub>2</sub> thin films. <i>Journal of Applied Physics</i> , 1999, 86, 5270-5273.	2.5	11
51	Birefringence in optical fibers formed by proton implantation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2007, 265, 490-494.	1.4	11
52	Fabrication of Inert Silver Nanoparticles with a Thin Silica Coating. <i>Japanese Journal of Applied Physics</i> , 2008, 47, 8641-8643.	1.5	11
53	Parallel-incidence-type waveguide-mode sensor with spectral-readout setup. <i>Optics Express</i> , 2015, 23, 10925.	3.4	11
54	Photo-induced refractive index change in hydrogenated amorphous silicon oxynitride. <i>Journal of Applied Physics</i> , 2002, 91, 6350.	2.5	10

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55	Development of high-sensitivity molecular adsorption detection sensors. <i>Synthesiology</i> , 2009, 2, 142-153.	0.2	10
56	Detection of Influenza Viruses Attached to an Optical Disk. <i>Journal of Biomaterials and Nanobiotechnology</i> , 2013, 04, 145-150.	0.5	9
57	Detection of antibodies against hepatitis B virus surface antigen and hepatitis C virus core antigen in plasma with a waveguide-mode sensor. <i>Journal of Bioscience and Bioengineering</i> , 2017, 123, 760-764.	2.2	8
58	Design of a sedimentation hole in a microfluidic channel to remove blood cells from diluted whole blood. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 037201.	1.5	8
59	Carbon Nanotubes as Fluorescent Labels for Surface Plasmon Resonance-Assisted Fluoroimmunoassay. <i>Sensors</i> , 2017, 17, 2569.	3.8	8
60	Optimization of silica surface with nanosize holes for immobilization of biomolecules and analysis of their interactions. <i>Analytica Chimica Acta</i> , 2010, 680, 72-78.	5.4	7
61	Detection and Two-Dimensional Imaging of <i>Escherichia coli</i> Attached to an Optical Disk. <i>Japanese Journal of Applied Physics</i> , 2013, 52, 108004.	1.5	7
62	Rapid detection of hemagglutination using restrictive microfluidic channels equipped with waveguide-mode sensors. <i>Japanese Journal of Applied Physics</i> , 2016, 55, 027002.	1.5	7
63	Excited-state absorption measurement in Ge-doped SiO <sub>2</sub> glass. <i>Journal of Applied Physics</i> , 1997, 81, 2913-2915.	2.5	6
64	Control of Coupling Ratio by Proton Implantation for a Directional Coupler of Planar-Lightwave-Circuit Type. <i>Japanese Journal of Applied Physics</i> , 2009, 48, 102405.	1.5	6
65	Application of Infrared Attenuated Total Reflection Spectroscopy to In Situ Analysis of Atheromatous Plaques in Aorta. <i>Japanese Journal of Applied Physics</i> , 2000, 39, L490-L492.	1.5	5
66	Molecular detection in a micro channel using silver-oxide thin film. <i>Microelectronic Engineering</i> , 2006, 83, 1626-1629.	2.4	5
67	Shape-sensitive reflectance by nanostructured metal attached on an optical waveguide-mode sensor. <i>Nanotechnology</i> , 2011, 22, 245503.	2.6	5
68	Fluorescence enhancement by a SiO <sub>2</sub> -based monolithic waveguide structure for biomolecular detection. <i>Journal of Applied Physics</i> , 2013, 113, 143103.	2.5	5
69	Sensitive typing of reverse ABO blood groups with a waveguide-mode sensor. <i>Journal of Bioscience and Bioengineering</i> , 2018, 126, 131-137.	2.2	5
70	Sensitive Detection of C-Reactive Protein by One-Step Method Based on a Waveguide-Mode Sensor. <i>Sensors</i> , 2020, 20, 3195.	3.8	5
71	Direct deposition of a blanket tungsten layer on SiO <sub>2</sub> by preexposure of helium plasma. <i>Journal of Applied Physics</i> , 1999, 85, 8423-8426.	2.5	4
72	Control of the properties of directional couplers using proton irradiation. <i>Nuclear Instruments &amp; Methods in Physics Research B</i> , 2007, 264, 267-271.	1.4	4

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73	Reduction in polarization dependent loss of a planar lightwave circuit by ion-implantation-induced birefringence. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 4762-4765.	1.4	4
74	Optical Fiber Depolarizer Using Birefringence Induced by Proton Implantation. Japanese Journal of Applied Physics, 2009, 48, 032404.	1.5	4
75	Plasmonic activity on gold nanoparticles embedded in nanopores formed in a surface layer of silica glass by swift-heavy-ion irradiation. Nanotechnology, 2009, 20, 475306.	2.6	4
76	Microfluidic sedimentation system for separation of plasma from whole blood. , 2014, , .		4
77	Sensor chip design for increasing surface-plasmon-assisted fluorescence enhancement of the V-trench biosensor. Japanese Journal of Applied Physics, 2016, 55, 067001.	1.5	4
78	Optimization of a waveguide-mode sensing chip for an ultraviolet near-field illumination biosensor. Optics Express, 2017, 25, 26011.	3.4	4
79	Development of a dielectrophoresis-assisted surface plasmon resonance fluorescence biosensor for detection of bacteria. Japanese Journal of Applied Physics, 2018, 57, 057001.	1.5	4
80	Ultraviolet photon-induced absorption bands and paramagnetic centers in Ge and Sn co-doped SiO <sub>2</sub> glass. Journal of Non-Crystalline Solids, 2003, 318, 87-94.	3.1	3
81	Optical-disk-based imaging system to be used as an optical microscope. Japanese Journal of Applied Physics, 2016, 55, 078002.	1.5	3
82	Blue-laser scanned imaging system using positioning marks formed on an optical disk substrate. Japanese Journal of Applied Physics, 2017, 56, 058003.	1.5	3
83	Surface Enhanced Raman Scattering of Silver Nanoparticles Formed from Silver Oxide Films with Different Composition Ratios. Japanese Journal of Applied Physics, 2007, 46, 1220-1223.	1.5	2
84	Surface-Enhanced Raman Scattering by Hemi-Ellipsoidal Ag Nanoparticles Generated from Silver-Oxide Thin Films. Japanese Journal of Applied Physics, 2007, 46, L1080-L1082.	1.5	2
85	Monitoring biological interactions using perforated evanescent-field-coupled waveguide-mode nanobiosensors. Nucleic Acids Symposium Series, 2009, 53, 93-94.	0.3	2
86	Resist-less patterning on SiO <sub>2</sub> by combination of X-ray exposure and vapor HF etching. Microsystem Technologies, 2010, 16, 1339-1346.	2.0	2
87	Size control of nanopores formed on SiO <sub>2</sub> glass by swift-heavy-ion irradiation and its application to highly sensitive biomolecular detection. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2011, 29, .	2.1	2
88	Selective detection of Escherichia coli by imaging of the light intensity transmitted through an optical disk. Applied Physics Express, 2018, 11, 037001.	2.4	2
89	Fluorescence imaging of Escherichia coli on a rotating optical disk. Japanese Journal of Applied Physics, 2018, 57, 088003.	1.5	2
90	Detection of norovirus-like particles with an external force-assisted near-field illumination biosensor. Japanese Journal of Applied Physics, 2019, 58, 071005.	1.5	2

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91	Application of a Waveguide-Mode Sensor to Blood Testing for Hepatitis B Virus, Hepatitis C Virus, Human Immunodeficiency Virus and Treponema pallidum Infection. Sensors, 2019, 19, 1729.	3.8	2
92	Structures and Optical Properties of Defects Correlated with Photo-Induced Refractive Index Changes in Ge-Doped SiO <sub>2</sub> Glass. Defect and Diffusion Forum, 2000, 177-178, 43-50.	0.4	1
93	High Sensitive Optical Detection of Bio-Chemicals onto a Silicon Oxide Surface Based on Waveguide Mode. Materials Research Society Symposia Proceedings, 2005, 900, 1.	0.1	1
94	A study of the critical factor determining the size of etched latent tracks formed on SiO <sub>2</sub> glass by swift-Cl-ion irradiation. Nuclear Instruments & Methods in Physics Research B, 2012, 272, 1-4.	1.4	1
95	Development of a TiO <sub>2</sub> /SiO <sub>2</sub> waveguide-mode chip for an ultraviolet near-field fluorescence sensor. Optics Express, 2018, 26, 6796.	3.4	1
96	Development of a Sub-micron Processing Method with Ion Implantation. IEEJ Transactions on Fundamentals and Materials, 2005, 125, 69-70.	0.2	1
97	Development of a Plasma Separation System for a Portable Blood Test Device. IEEJ Transactions on Sensors and Micromachines, 2015, 135, 152-157.	0.1	1
98	Title is missing!. Synthesiology, 2009, 2, 147-158.	0.2	1
99	Three-Dimensional Lithography for Rutile TiO <sub>2</sub> Single Crystals using Swift Heavy Ions. Materials Research Society Symposia Proceedings, 2003, 797, 75.	0.1	0
100	Solution Conductivity as a Key Factor for Thin Silica Coating on Colloidal Silver. Japanese Journal of Applied Physics, 2009, 48, 06FE04.	1.5	0
101	Palmtop waveguide-mode sensor: Comparison of sensitivity and subtyping of influenza viruses with SPR, ELISA and Immunochromatography. , 2013, , .		0
102	A Monitoring Method of Additives in a Copper Sulfate Plating Solution Using a Near-Field Optical Sensor. Hyomen Gijutsu/Journal of the Surface Finishing Society of Japan, 2016, 67, 575-580.	0.2	0
103	Dielectrophoresis-assisted SPR illumination biosensor for selective detection of biological substances. , 2017, , .		0
104	Proposal of a chip capable of simultaneous excitation of waveguide-mode resonance and surface plasmon resonance for an electro-assisted near-field fluorescence sensor. Japanese Journal of Applied Physics, 2018, 57, 122002.	1.5	0
105	Toward the development of an optical technique for identifying and imaging white blood cells in whole blood. Japanese Journal of Applied Physics, 2021, 60, 038001.	1.5	0
106	Detection of influenza viruses with the waveguide mode sensor. Synthesiology, 2015, 8, 97-107.	0.2	0