Kunihide Tachibana

List of Publications by Year
in descending order

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123 papers	3,464 citations	172457 29 h-index	155660 55 g-index
125 all docs	125 docs citations	125 times ranked	2316 citing authors

#	Article	IF	Citations
1	The 2012 Plasma Roadmap. Journal Physics D: Applied Physics, 2012, 45, 253001.	2.8	511
2	A streamer-like atmospheric pressure plasma jet. Applied Physics Letters, 2008, 92, .	3.3	221
3	Verification of a plasma photonic crystal for microwaves of millimeter wavelength range using two-dimensional array of columnar microplasmas. Applied Physics Letters, 2005, 87, 241505.	3.3	178
4	Current status of microplasma research. IEEJ Transactions on Electrical and Electronic Engineering, 2006, 1, 145-155.	1.4	136
5	Observation of self-organized filaments in a dielectric barrier discharge of Ar gas. Applied Physics Letters, 2003, 83, 2309-2311.	3.3	107
6	Integrated coaxial-hollow micro dielectric-barrier-discharges for a large-area plasma source operating at around atmospheric pressure. Journal Physics D: Applied Physics, 2005, 38, 431-441.	2.8	102
7	Microdischarge Optical Emission Spectroscopy as a Novel Diagnostic Tool for Metalorganic Chemical Vapor Deposition of (Ba,Sr)TiO3Films. Japanese Journal of Applied Physics, 2000, 39, 555-559.	1.5	96
8	Radical kinetics for polymer film deposition in fluorocarbon (C4F8, C3F6 and C5F8) plasmas. Thin Solid Films, 2000, 374, 303-310.	1.8	83
9	Preparation of Rutile TiO$_{f 2}$ Films by RF Magnetron Sputtering. Japanese Journal of Applied Physics, 1995, 34, 4950-4955.	1.5	81
10	Properties of Electromagnetic Wave Propagation Emerging in 2-D Periodic Plasma Structures. IEEE Transactions on Plasma Science, 2007, 35, 1267-1273.	1.3	78
11	A Study on Radical Fluxes in Silane Plasma CVD from Trench Coverage Analysis. Japanese Journal of Applied Physics, 1989, 28, 212-218.	1.5	65
12	Spatiotemporal behaviors of excited Xe atoms in unit discharge cell of ac-type plasma display panel studied by laser spectroscopic microscopy. Journal of Applied Physics, 2000, 88, 4967-4974.	2.5	64
13	Measurement of SiH2Densities in an RF-Discharge Silane Plasmae Used in the Chemical Vapor Deposition of Hydrogenated Amorphous Silicon Film. Japanese Journal of Applied Physics, 1992, 31, 2588-2591.	1.5	52
14	Measurement of Absolute Densities and Spatial Distributions of Si and SiH in an RF-Discharge Silane Plasma for the Chemical Vapor Deposition of a-Si:H Films. Japanese Journal of Applied Physics, 1991, 30, L1208-L1211.	1.5	51
15	Spatioâ€temporal measurement of excited Xe(1s4) atoms in a discharge cell of a plasma display panel by laser spectroscopic microscopy. Applied Physics Letters, 1994, 65, 935-937.	3.3	51
16	Investigation of Discharge Phenomena in a Cell of Color Plasma Display Panel I. One-Dimensional Model and Numerical Method. Japanese Journal of Applied Physics, 1996, 35, 251-258.	1.5	49
17	Time-Resolved Imaging of â€œPlasma Bulletsâ€•in a Dielectric Capillary Atmospheric Pressure Discharge. IEEE Transactions on Plasma Science, 2008, 36, 956-957.	1.3	49
18	Molecular composition of films and solid particles polymerized in fluorocarbon plasmas. Journal of Applied Physics, 2001, 89, 893-899.	2.5	47

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19	Mie-Scattering Ellipsometry for Analysis of Particle Behaviors in Processing Plasmas. Japanese Journal of Applied Physics, 1994, 33, L476-L478.	1.5	44
20	Comparative study of discharge schemes for production rates and ratios of reactive oxygen and nitrogen species in plasma activated water. Journal Physics D: Applied Physics, 2019, 52, 385202.	2.8	43
21	Spectroscopic Study on a Discharge Plasma of MOCVD Source Gases for High-TcSuperconducting Films. Japanese Journal of Applied Physics, 1990, 29, 1932-1938.	1.5	39
22	Reduction of Copper Oxide Thin Films with Hydrogen Plasma Generated by a Dielectric-Barrier Glow Discharge. Japanese Journal of Applied Physics, 1999, 38, 6506-6511.	1.5	39
23	Interaction between Dielectric Barrier Discharge and Positive Streamer in Helium Plasma Jet at Atmospheric Pressure. Japanese Journal of Applied Physics, 2010, 49, 106001.	1.5	38
24	Study of plasma enhanced chemical vapor deposition of ZnO films by non-thermal plasma jet at atmospheric pressure. Thin Solid Films, 2010, 518, 3513-3516.	1.8	37
25	Underwater microdischarge in arranged microbubbles produced by electrolysis in electrolyte solution using fabric-type electrode. Applied Physics Letters, 2008, 93, .	3.3	36
26	Analysis of Spherical Carbon Particle Growth in Methane Plasma by Mie-Scattering Ellipsometry. Japanese Journal of Applied Physics, 1994, 33, 4208-4211.	1.5	34
27	Detection of H Atoms in RF-DischargeSiH4,CH4andH2Plasmas by Two-Photon Absorption Laser-Induced Fluorescence Spectroscopy. Japanese Journal of Applied Physics, 1994, 33, 4329-4334.	1.5	34
28	Negative refractive index designed in a periodic composite of lossy microplasmas and microresonators. Physics of Plasmas, 2010, 17, .	1.9	33
29	Vacuum-ultraviolet laser absorption spectroscopy for absolute measurement of fluorine atom density in fluorocarbon plasmas. Applied Physics Letters, 1999, 74, 2390-2392.	3.3	31
30	Preparation and Characterization of Superconducting Yâ€“Baâ€“Cuâ€“O Films by the MOCVD Technique. Japanese Journal of Applied Physics, 1990, 29, 1070-1075.	1.5	29
31	Spectroscopic Study on Metallorganic Chemical Vapor Deposition of Manganese Oxide Films. Journal of the Electrochemical Society, 2005, 152, C584.	2.9	29
32	Spectroscopic Measurements of the Production and the Transport of CH Radicals in a Methane Plasma Used for the CVD of a-C:H. Japanese Journal of Applied Physics, 1990, 29, 2156-2164.	1.5	27
33	The Necessity of Radicals for Gene Transfection by Discharge Plasma Irradiation. Journal of Photopolymer Science and Technology = [Fotoporima Konwakai Shi], 2014, 27, 399-404.	0.3	27
34	Characteristics of metamaterials composed of microplasma arrays. Plasma Physics and Controlled Fusion, 2007, 49, B453-B463.	2.1	26
35	A Two-Dimensional Simulation of Pulsed Discharge for a Color DC-Type Plasma Display Panel. Japanese Journal of Applied Physics, 2000, 39, 590-597.	1.5	23
36	Combined spectroscopic methods for electron-density diagnostics inside atmospheric-pressure glow discharge using He/N₂ gas mixture. Journal Physics D: Applied Physics, 2011, 44, 115203.	2.8	23

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37	Population Density and LTE of Excited Atoms in a Positive-Column Plasma. II. Measurement on Argon. Japanese Journal of Applied Physics, 1973, 12, 895-902.	1.5	22
38	Preparation of Nearly Stoichiometric Superconducting Y-Ba-Cu-O Films by an MOCVD Technique Using Ozone. Japanese Journal of Applied Physics, 1990, 29, L2041-L2044.	1.5	22
39	An IR Study on the Stability of Y(DPM)3, Ba(DPM)2and Cu(CPM)2for UV Irradiation. Japanese Journal of Applied Physics, 1991, 30, 1946-1955.	1.5	22
40	Microplasma array with metamaterial effects. Thin Solid Films, 2010, 518, 3444-3448.	1.8	22
41	Mechanisms of Pattern Formation in Dielectric Barrier Discharges. IEEE Transactions on Plasma Science, 2011, 39, 2090-2091.	1.3	22
42	Population Density and LTE of Excited Atoms in a Positive-Column Plasma I. Calculation on Hydroegn. Japanese Journal of Applied Physics, 1972, 11, 718-725.	1.5	21
43	In SituMeasurement of Gas-Phase Reactions in Metal-Organic Chemical Vapor Deposition of Copper Films by Fourier Transform Infrared Spectroscopy. Japanese Journal of Applied Physics, 1993, 32, 4774-4778.	1.5	21
44	Effects of Gas-Phase Thermal Decompositions of Chemical Vapor Deposition Source Molecules on the Deposition of (Ba, Sr)TiO3Films: A Study by In Situ Fourier Transform Infared Spectroscopy. Japanese Journal of Applied Physics, 2000, 39, 5384-5388.	1.5	21
45	Vacuum ultraviolet luminous efficiency and plasma ion density in alternating current plasma display panels. Applied Physics Letters, 2002, 81, 3341-3343.	3.3	21
46	Impedance Spectroscopy of Manganite Films Prepared by Metalorganic Chemical Vapor Deposition. Journal of Nanoscience and Nanotechnology, 2011, 11, 8408-8411.	0.9	21
47	Difference between C4F8 and C5F8 plasmas in surface reaction processes for selective etching of SiO2 over Si3N4. Thin Solid Films, 2000, 374, 243-248.	1.8	20
48	Surface reaction processes in C4F8 and C5F8 plasmas for selective etching of SiO2 over photo-resist. Thin Solid Films, 2001, 390, 134-138.	1.8	20
49	Effects of pulsed potential on address electrode in a surface-discharge alternating-current plasma display panel. Applied Physics Letters, 2003, 82, 3844-3846.	3.3	20
50	Characterization of porosity and dielectric constant of fluorocarbon porous films synthesized by using plasma-enhanced chemical vapor deposition and solvent process. Applied Physics Letters, 2003, 82, 2476-2478.	3.3	20
51	A Set of De-Excitation Rate Coefficients for the 3s3P2and3P1Levels of Neon. Japanese Journal of Applied Physics, 1982, 21, 1529-1535.	1.5	19
52	Probe Measurements: Fundamentals to Advanced Applications. Journal of Plasma and Fusion Research, 2005, 81, 482-525.	0.4	18
53	Measurement and Calculation of $f SiH_{2}$ Radical Density in $f SiH_{4}$ and $f Si_{2}H_{6}$ Plasma for the Deposition of Hydrogenated Amorphous Silicon Thin Films. Japanese Journal of Applied Physics, 1995, 34, 4239-4246.	1.5	17
54	Diagnosis of Oxidation Reactions in Metalorganic Chemical Vapor Deposition of (Ba,Sr)TiO3Films byIn SituFourier Transform Infrared Spectroscopy. Japanese Journal of Applied Physics, 2001, 40, 5501-5506.	1.5	17

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55	VUV to UV laser spectroscopy of atomic species in processing plasmas. Plasma Sources Science and Technology, 2002, 11, A166-A172.	3.1	17
56	Quantum Chemical Study on Chemical Vapor Deposition Source Molecules for the Deposition of (Ba,Sr)TiO3Films: Infrared Band Identifications by Density Functional Calculations. Japanese Journal of Applied Physics, 2001, 40, 338-345.	1.5	16
57	Microplasma generation in artificial media and its potential applications. Pure and Applied Chemistry, 2010, 82, 1189-1199.	1.9	16
58	Direct Photochemical Vapor Deposition of Hydrogenated Amorphous Silicon -Effects of Excitation Wavelengths and Source Gases-. Japanese Journal of Applied Physics, 1993, 32, 1546-1557.	1.5	15
59	Analysis of weblike network structures of directed graphs for chemical reactions in methane plasmas. AIP Advances, 2015, 5, .	1.3	15
60	In-situ measurement of gas-phase reactions during the metal-organic chemical vapor deposition of copper using Fourier-transform infrared spectroscopy. Thin Solid Films, 1995, 262, 209-217.	1.8	13
61	Electron Attachment Mass Spectrometry for the Detection of Electronegative Species in a Plasma. Japanese Journal of Applied Physics, 1997, 36, 4638-4643.	1.5	13
62	Reaction Mechanism of Alkoxy Derivatives of Titanium Diketonates as Source Molecules in Liquid Source Metalorganic Chemical Vapor Deposition of (Ba,Sr)TiO3Films: A Study byIn SituInfrared Absorption Spectroscopy. Japanese Journal of Applied Physics, 2002, 41, 6624-6627.	1.5	13
63	Plasma Copolymerization of C6F6/C5F8for Application of Low-Dielectric-Constant Fluorinated Amorphous Carbon Films and Its Gas-Phase Diagnostics UsingIn SituFourier Transform Infrared Spectroscopy. Japanese Journal of Applied Physics, 2004, 43, 2697-2703.	1.5	13
64	Monte-Carlo Simulation of Surface Reactions in Plasma-Enhanced Chemical Vapor Deposition of Hydrogenated Amorphous Silicon Thin Films. Japanese Journal of Applied Physics, 1993, 32, 4946-4947.	1.5	12
65	Observations of Silicon Surfaces Exposed to Inductively Coupled CHF3and C4F8/H2Plasmas Using Fourier Transform Infrared Ellipsometry. Japanese Journal of Applied Physics, 1998, 37, 4522-4526.	1.5	12
66	Analysis of Product Species in Capacitively Coupled C 5F 8 Plasma by Electron Attachment Mass Spectroscopy. Japanese Journal of Applied Physics, 1999, 38, L888-L891.	1.5	12
67	Quantum Chemical Study on Decomposition and Polymer Deposition in Perfluorocarbon Plasmas: Molecular Orbital Calculations of Excited States of Perfluorocarbons. Japanese Journal of Applied Physics, 2001, 40, 847-854.	1.5	12
68	Composition control of manganite perovskites in metalorganic chemical vapor deposition with in situ spectroscopic monitoring. Journal of Applied Physics, 2005, 97, 10H712.	2.5	12
69	Electric-Pulse-Induced Resistance Switching in Magnetoresistive Manganite Films Grown by Metalorganic Chemical Vapor Deposition. IEEE Transactions on Magnetics, 2007, 43, 3070-3072.	2.1	12
70	Ion Impact Energy Distributions and Properties of Amorphous Hydrogenated Carbon Thin Films Deposited in a Self-Biased RF Discharge. Japanese Journal of Applied Physics, 1994, 33, 6341-6349.	1.5	11
71	Formation Mechanism of Strontium and Titanium Oxide Films by Metalorganic Chemical Vapor Deposition: An Isotopic Labeling Study Using18O2. Japanese Journal of Applied Physics, 2001, 40, 6619-6622.	1.5	11
72	Improvement of Efficiency of Ultraviolet Radiation in a Plasma Display Panel with a Complex Buffer Gas. Japanese Journal of Applied Physics, 2001, 40, 1448-1456.	1.5	10

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73	Film Precursor Formation in Metalorganic Chemical Vapor Deposition of Barium Strontium Titanate Films: A Study by Microdischarge Optical Emission Spectroscopy. Japanese Journal of Applied Physics, 2002, 41, 778-783.	1.5	9
74	Reduction of CO2solute by hydrogen microplasmas in an electrolyte. Journal Physics D: Applied Physics, 2009, 42, 202004.	2.8	9
75	Monolithic structure of integrated coaxial microhollow dielectric barrier discharges: Characterization for environmental and biomedical applications. Japanese Journal of Applied Physics, 2016, 55, 07LB01.	1.5	9
76	Characterization of dielectric barrier discharges with water in correlation to productions of OH and H₂O₂ in gas and liquid phases. Japanese Journal of Applied Physics, 2019, 58, 046001.	1.5	9
77	Generation of Plasmas in Multiphase Medium. Transactions of the Materials Research Society of Japan, 2010, 35, 81-83.	0.2	9
78	Reaction mechanism of a lanthanum precursor in liquid source metalorganic chemical vapor deposition. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2005, 118, 253-258.	3.5	8
79	Spatiotemporal Surface Charge Measurement in Two Types of Dielectric Barrier Discharges Using Pockels Effect. Japanese Journal of Applied Physics, 2006, 45, 8255-8259.	1.5	8
80	Metalorganic chemical vapor deposition of metal oxide films exhibiting electric-pulse-induced resistance switching. Surface and Coatings Technology, 2007, 201, 9275-9278.	4.8	8
81	Determination of Electron Impact Ionization and Excitation Coefficients in He-Xe Gas Mixtures. IEEJ Transactions on Fundamentals and Materials, 1991, 111, 182-191.	0.2	8
82	Preparing YBCO superconducting films by MOCVD with UV-light irradiation. Physica C: Superconductivity and Its Applications, 1991, 190, 134-136.	1.2	7
83	In situ infrared absorption spectroscopy on the thermal decomposition process of MOCVD source gases for YBCO thin films. Physica C: Superconductivity and Its Applications, 1991, 190, 145-147.	1.2	7
84	Influence of Ozone Concentration on the Preparation of Stoichiometric Superconducting Y-Ba-Cu-O Films by a Metalorganic Chemical Vapor Deposition Technique. Japanese Journal of Applied Physics, 1991, 30, L1477-L1479.	1.5	7
85	Effects of O2Gas on Reaction Mechanisms in the Chemical Vapor Deposition of (Ba, Sr)TiO3Thin Film. Japanese Journal of Applied Physics, 2002, 41, 2231-2240.	1.5	7
86	Mode Change Observed on Spatial Distribution of Microplasma Emission in a Microdischarge Cell with a Floating Electrode. Japanese Journal of Applied Physics, 2009, 48, 106002.	1.5	7
87	Oxidation processes of NO for production of reactive nitrogen species in plasma activated water. Journal Physics D: Applied Physics, 2020, 53, 385202.	2.8	7
88	Examination of UV-absorption spectroscopy for analysis of O₃, NO₂ ^{â˜'}, and HNO₂ compositions and kinetics in plasma-activated water. Japanese Journal of Applied Physics, 2020, 59, 056004.	1.5	7
89	A Study of Film Precursors in SiH4 Plasma-Enhanced CVD.. Kagaku Kogaku Ronbunshu, 1991, 17, 758-767.	0.3	6
90	In-situ investigations of radical kinetics in the deposition of hydrogenated amorphous silicon films. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 1993, 17, 68-71.	3.5	6

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91	Construction and Performance of a Fourier-Transform Infrared Phase-Modulated Ellipsometer for In-Process Surface Diagnostics. Japanese Journal of Applied Physics, 1996, 35, 3652-3657.	1.5	6
92	Two-Dimensional Melting in a Coulomb Crystal of Dusty Plasmas. Japanese Journal of Applied Physics, 1999, 38, 4561-4566.	1.5	6
93	Measurements of atomic carbon density in processing plasmas by vacuum ultraviolet laser absorption spectroscopy. Journal of Applied Physics, 2002, 92, 5684-5690.	2.5	6
94	Plasma polymerization of fluorocarbon thin films on high temperature substrate and its application to low-k films. Thin Solid Films, 2007, 515, 4111-4115.	1.8	6
95	Plasma-enhanced chemical vapor deposition of carbon films using dibromoadamantane. Thin Solid Films, 2009, 518, 993-1000.	1.8	6
96	Chemical filters by non-thermal atmospheric pressure plasmas for reactive fields. Thin Solid Films, 2011, 519, 6999-7004.	1.8	6
97	A Plasma Source Using Waves in a Lower Hybrid Frequency Range. Japanese Journal of Applied Physics, 1997, 36, 4572-4575.	1.5	5
98	Numerical Investigation of Vertical Mercury Arc Operating at Various Tube Radii. Japanese Journal of Applied Physics, 1997, 36, 6533-6539.	1.5	5
99	Ab initio calculations of the dissociative attachment resonance energies for an octafluorocyclopentene molecule with comparisons to electron attachment mass spectrometric measurements. Applied Physics Letters, 2002, 80, 3904-3906.	3.3	5
100	In Situ Infrared Spectroscopic Study on a Titanium Source in MOCVD. Journal of the Electrochemical Society, 2004, 151, C605.	2.9	5
101	Thermal Decomposition Mechanism of a Titanium Source, Ti(MPD)(METHD)[sub 2], in MOCVD. Journal of the Electrochemical Society, 2004, 151, C806.	2.9	5
102	A comparative summary on streamers of positive corona discharges in water and atmospheric pressure gases. EPJ Applied Physics, 2015, 71, 20802.	0.7	5
103	On homogeneous and heterogeneous reactions in plasma processing.. Shinku/Journal of the Vacuum Society of Japan, 1988, 31, 179-187.	0.2	5
104	Measurement of the Formation and Dissociation Rates of CsXe Excimers. Japanese Journal of Applied Physics, 1977, 16, 1859-1860.	1.5	4
105	Plasma Production and Wave Propagation in a Plasma Source Using Lower Hybrid Waves. Japanese Journal of Applied Physics, 1999, 38, 4351-4356.	1.5	4
106	Plasma Enhanced Chemical Vapor Deposition of Fluorinated Amorphous Carbon Films on the Surface with Reverse Tapered Microstructures. Japanese Journal of Applied Physics, 2003, 42, 4504-4509.	1.5	4
107	Diffusion and Quenching of Metastable Xe Atoms in Mixtures of Xe and Rare Gases. Japanese Journal of Applied Physics, 1994, 33, 6716-6717.	1.5	3
108	Catalystâ€Free Oneâ€Pot Plasma Chemical Conversion of Carbon Dioxide to Performic Acid by Waterâ€Sealed Dielectric Barrier Discharge. Plasma Processes and Polymers, 2016, 13, 1230-1241.	3.0	3

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109	Numerical Study of Efficiency of Ultraviolet Radiation Emitted in a Cell of Plasma Display Panels. IEEJ Transactions on Fundamentals and Materials, 2000, 120, 532-540.	0.2	3
110	Angle Resolved Mass Spectrometry of Positive Ions Transmitted through High Aspect Ratio Channels in a Radio Frequency Discharge. Japanese Journal of Applied Physics, 1997, 36, 4632-4637.	1.5	2
111	Gaseous Ultraviolet-Radiation Source with Electron Emitter. Japanese Journal of Applied Physics, 2001, 40, L222-L224.	1.5	2
112	Influence of sustaining frequency on the production efficiency of excited Xe atoms studied in unit cell microplasma for ACPDPs using spectroscopic diagnostics. Journal of the Society for Information Display, 2007, 15, 297.	2.1	2
113	Generation of Micro-Scale Reactive Plasmas and Development of Their New Applications -Present and Future of Research and Development on Microplasmas- 1. Introduction. Journal of Plasma and Fusion Research, 2004, 80, 825-826.	0.4	2
114	Plasma Parameters and Ionization Degree of Al in a Mixture of Al Vapor and Ar Gas for Ion Plating.. Shinku/Journal of the Vacuum Society of Japan, 1993, 36, 545-549.	0.2	2
115	Calculation of the Output Power of the Argon-Ion Laser Superimposed by a Magnetic Field. Japanese Journal of Applied Physics, 1975, 14, 661-666.	1.5	1
116	Rotational Analysis of Second-Positive Emissions in a N2â€“SF6Laser. Japanese Journal of Applied Physics, 1976, 15, 1831-1832.	1.5	1
117	Measurement of Collision Broadening of Resonance Lines of Calcium Ion by a Low-Resolution Spectrometer. Japanese Journal of Applied Physics, 1981, 20, 1021-1025.	1.5	1
118	Thickness Dependence of H Radical Treatment of Si Thin Films Deposited by Plasma-Enhanced Chemical Vapor Deposition Using SiF4/SiH4/H2Gases. Japanese Journal of Applied Physics, 1996, 35, 2047-2051.	1.5	1
119	Experimental and Theoretical Characterization of Plasma Metamaterials. Transactions of the Materials Research Society of Japan, 2011, 36, 449-454.	0.2	1
120	Developments of Basic Researches on Fluorocarbon Plasmas for Material Processing. 1. Introduction.. Journal of Plasma and Fusion Research, 1999, 75, 777-778.	0.4	1
121	Low-Temperature Growth Process of Polycrystalline Silicon for Thin Film Transistors.. Shinku/Journal of the Vacuum Society of Japan, 1994, 37, 875-880.	0.2	1
122	Diagnostics and Simulations of Microplasmas. Journal of Plasma and Fusion Research, 2004, 80, 835-844.	0.4	0
123	LIF study on the spatial distributions and transport processes of radicals in hydrocarbon plasmas.. The Review of Laser Engineering, 1989, 17, 568-577.	0.0	0