Hiroaki Nakamura

List of Publications by Year
in descending order

133	1,037	471509 17	526287 27
papers	citations	h-index	g-index

134	134	134	674
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Rate of double strand breaks of genome-sized DNA in tritiated water: Its dependence on tritium concentration and water temperature. Journal of Advanced Simulation in Science and Engineering, 2022, 9, 198-205.	0.2	1
2	Image processing method for automatic measurement of number of DNA breaks. Journal of Advanced Simulation in Science and Engineering, 2021, 8, 173-193.	0.2	2
3	Multi-Objective Optimization of Superconducting Linear Acceleration System for Pellet Injection by Using Finite Element Method. Plasma and Fusion Research, 2021, 16, 2401025-2401025.	0.7	1
4	A Mesh-Generation Scheme for the Large Helical Device Based on the Structure of Magnetic-Field Lines. Plasma and Fusion Research, 2021, 16, 2401086-2401086.	0.7	0
5	A theoretical approach to structural change of a polymer induced by beta decays of substituted tritium based on the linear response theory. Journal of Advanced Simulation in Science and Engineering, 2021, 8, 211-222.	0.2	1
6	Structural change of damaged polyethylene by beta-decay of substituted tritium using reactive force field. Japanese Journal of Applied Physics, 2021, 60, SAAB06.	1.5	4
7	Molecular dynamics simulation for hydrogen recycling on tungsten divertor for neutral transport analysis. Japanese Journal of Applied Physics, 2021, 60, SAAB08.	1.5	1
8	Molecular dynamics study on DNA damage by tritium disintegration. Japanese Journal of Applied Physics, 2020, 59, SAAE01.	1.5	7
9	Neutral transport code for rovibrational population calculation of molecular hydrogen in large helical device plasmas. Contributions To Plasma Physics, 2020, 60, e201900153.	1.1	8
10	Molecular dynamics simulation model of hydrogen recycling on carbon divertor for neutral transport analysis in large helical device. Contributions To Plasma Physics, 2020, 60, e201900152.	1.1	6
11	Hybrid Method Incorporated with Meshless Approach for Electromagnetic Wave Simulation. Plasma and Fusion Research, 2020, 15, 2401026-2401026.	0.7	0
12	Development of a Molecular Dynamics Method with Heat Transfer into Bulk for Ion Injection into Materials. Plasma and Fusion Research, 2020, 15, 2403073-2403073.	0.7	2
13	Evaluation of Mechanical Torque Acting on Scatterer in Microwave Vortex Fields. IEEE Microwave and Wireless Components Letters, 2019, 29, 504-506.	3.2	5
14	Modified Improved Interpolating Moving Least Squares Method for Meshless Approaches. IEEE Transactions on Magnetics, 2019, 55, 1-4.	2.1	8
15	Kinetics of double strand breaks of DNA in tritiated water evaluated using single molecule observation method. Fusion Engineering and Design, 2019, 146, 100-102.	1.9	8
16	Computational strategy for studying structural change of tritium-substituted macromolecules by a beta decay to helium-3. Journal of Advanced Simulation in Science and Engineering, 2019, 6, 94-99.	0.2	8
17	FEM Simulation of Axisymmetric Pellet Injection System Using HTS Linear Acceleration. Plasma and Fusion Research, 2019, 14, 3401077-3401077.	0.7	4
18	Structural Changes in Tritium-Substituted Polymeric Materials by Beta Decays: A Molecular Dynamics Study. Plasma and Fusion Research, 2019, 14, 3401106-3401106.	0.7	5

#	Article	IF	Citations
19	Volume Rendering Method Applied to 3D Edge Impurity Emission in LHD to Produce Projection Image in Arbitrary Plane. Plasma and Fusion Research, 2019, 14, 3406084-3406084.	0.7	0
20	Effect of polycrystalline structure on helium plasma irradiation of tungsten materials. Japanese Journal of Applied Physics, 2018, 57, 01AB06.	1.5	2
21	Dissipative Particle Dynamics Simulation for Self-Assembly of Symmetric Bolaamphiphilic Molecules in Solution. Plasma and Fusion Research, 2018, 13, 3401095-3401095.	0.7	0
22	Triple Hybrid Simulation Method for Tungsten Fuzzy Nanostructure Formation. Plasma and Fusion Research, 2018, 13, 3403061-3403061.	0.7	17
23	Automatic kinetic Monte-Carlo modeling for impurity atom diffusion in grain boundary structure of tungsten material. Nuclear Materials and Energy, 2017, 12, 353-360.	1.3	6
24	Binary-collision-approximation simulation on sputtering phenomena of nano-structured tungsten. , 2017, , .		1
25	Comparison of induced damage, range, reflection, and sputtering yield between amorphous, bcc crystalline, and bubble-containing tungsten materials under hydrogen isotope and noble gas plasma irradiations. Japanese Journal of Applied Physics, 2017, 56, 01AF04.	1.5	1
26	Study of tritium desorption by energetic ion bombardment from tungsten material. Japanese Journal of Applied Physics, 2016, 55, 01AH11.	1.5	0
27	Determination of dynamical changes in sputtering and retention on bubble-growing tungsten under helium plasma irradiation by binary-collision-approximation-based simulation. Japanese Journal of Applied Physics, 2016, 55, 01AH07.	1.5	3
28	Finite-difference time-domain analysis of electromagnetic wave propagation in corrugated waveguide: Effect of miter bend/polarizer miter bend. Japanese Journal of Applied Physics, 2016, 55, 01AH06.	1.5	3
29	Simulation of Contactless Crack Detection in HTS Films: Application of H-Matrix Method to Fast Matrix-Vector Multiplication. Plasma and Fusion Research, 2016, 11, 2401043-2401043.	0.7	1
30	Performance Improvement of Extended Boundary Node Method for Solving Elliptic Boundary-Value Problems. Plasma and Fusion Research, 2016, 11, 2401062-2401062.	0.7	0
31	Tungsten-Surface-Structure Dependence of Sputtering Yield for a Noble Gas. Plasma and Fusion Research, 2016, 11, 2401080-2401080.	0.7	10
32	Krylov Subspace Method with Communication Avoiding Technique for Linear System Obtained from Electromagnetic Analysis. Plasma and Fusion Research, 2016, 11, 2406021-2406021.	0.7	1
33	An Intuitive Interface for Visualizing Numerical Data in a Head-Mounted Display with Gesture Control. Plasma and Fusion Research, 2016, 11, 2406060-2406060.	0.7	3
34	Speedup of Shielding Current Analysis in High-Temperature Superconducting Film: Implementation of H-Matrix Method. Plasma and Fusion Research, 2016, 11, 2405041-2405041.	0.7	0
35	Dissipative Particle Dynamics Simulation of Self-Assembly in a Bolaamphiphilic Solution. Plasma and Fusion Research, 2016, 11, 2401073-2401073.	0.7	1
36	Sputtering Yield of Noble Gas Irradiation onto Tungsten Surface. Journal of Advanced Simulation in Science and Engineering, 2016, 3, 165-172.	0.2	3

#	Article	IF	Citations
37	Molecular simulation of hydrogen plasma irradiation into bubble-formed tungsten material. , 2015, , .		1
38	High-Speed Algorithm for Shielding Current Analysis in HTS Film with Cracks. Plasma and Fusion Research, 2015, 10, 3405023-3405023.	0.7	3
39	Molecular Dynamics Simulation of Phase Behavior in a Bolaamphiphilic Solution. Plasma and Fusion Research, 2015, 10, 3401029-3401029.	0.7	3
40	Material Temperature Dependence of the Retention and Sputtering Yield of Single-Crystal Graphite under Hydrogen Plasma Irradiation. Plasma and Fusion Research, 2015, 10, 3403075-3403075.	0.7	2
41	Hybrid simulation research on formation mechanism of tungsten nanostructure induced by helium plasma irradiation. Journal of Nuclear Materials, 2015, 463, 109-115.	2.7	48
42	First-Principles Study on Migration of Vacancy in Tungsten. Plasma and Fusion Research, 2014, 9, 3401117-3401117.	0.7	17
43	Molecular Dynamics Simulation of Micellar Shape Transition in Amphiphilic Solutions. Plasma and Fusion Research, 2014, 9, 3401067-3401067.	0.7	3
44	Grain size dependence of penetration depth of hydrogen injection into polycrystalline graphite by molecular simulation. Japanese Journal of Applied Physics, 2014, 53, 11RF04.	1.5	4
45	Molecular dynamics simulation of a helium bubble bursting on tungsten surfaces. Physica Scripta, 2014, T159, 014062.	2.5	38
46	Manifold Correction Method for the NosÃ©â€“Hoover and NosÃ©â€“PoincarÃ© Molecular Dynamics Simulations. Journal of the Physical Society of Japan, 2014, 83, 024003.	1.6	3
47	Transmission Efficiency in Complex-Shaped Waveguide using Real Metals. Plasma and Fusion Research, 2014, 9, 3401074-3401074.	0.7	0
48	Numerical Simulation of Contactless Methods for Measuring j_Cin High-Temperature Superconducting Film: Influence of Defect on Resolution and Accuracy. Plasma and Fusion Research, 2014, 9, 3401129-3401129.	0.7	0
49	Faster Generation of Shape Functions in Meshless Time Domain Method. Plasma and Fusion Research, 2014, 9, 3401144-3401144.	0.7	1
50	Speed-Up Technique of Extended Boundary Node Method for Large-Scale Simulation. Plasma and Fusion Research, 2014, 9, 3401061-3401061.	0.7	1
51	Numerical Investigations on Crack Identification in High-Temperature Superconducting Film. Plasma and Fusion Research, 2014, 9, 3405085-3405085.	0.7	1
52	Meshless Time-Domain Method with Modified RPIM-Based Shape Functions for Electromagnetic Wave Propagation Simulation in Complex Shaped Domain. Plasma and Fusion Research, 2014, 9, 3401088-3401088.	0.7	2
53	Binary-collision-approximation simulation for noble gas irradiation onto plasma facing materials. Journal of Physics: Conference Series, 2014, 490, 012169.	0.4	0
54	Progress of Binary-Collision-Approximation-Based Simulation for Surface Erosion by Plasma Irradiation. Communications in Computer and Information Science, 2014, , 176-186.	0.5	5

#	Article	IF	Citations
55	Current-Induced Cooling Phenomenon in a Two-Dimensional Electron Gas Under a Magnetic Field. Journal of Low Temperature Physics, 2013, 172, 132-153.	1.4	2
56	Formation and Classification of Amorphous Carbon by Molecular Dynamics Simulation. Japanese Journal of Applied Physics, 2013, 52, 01AL04.	1.5	3
57	Binary-collision-approximation-based simulation of noble gas irradiation to tungsten materials. Journal of Nuclear Materials, 2013, 438, S895-S898.	2.7	22
58	First-Principles Investigation on Trapping of Multiple Helium Atoms within a Tungsten Monovacancy. Japanese Journal of Applied Physics, 2013, 52, 01AL03.	1.5	28
59	Structural Change of Single-Crystalline Graphite under Plasma Irradiation. Japanese Journal of Applied Physics, 2013, 52, 01AL02.	1.5	5
60	Finite-Difference Time-Domain Simulation on Transmission of Millimeter Waves through Miter Bends. Japanese Journal of Applied Physics, 2013, 52, 11ND02.	1.5	2
61	Comparison of Damages on Tungsten Surface Exposed to Noble Gas Plasmas. Plasma Science and Technology, 2013, 15, 282-286.	1.5	33
62	Numerical Method for Analyzing Shielding Current Density in HTS Film with Multiple-Layer/Multiply-Connected Structure. Plasma and Fusion Research, 2013, 8, 2405078-2405078.	0.7	0
63	Numerical Investigations on Detectability of Crack by Contactless <i>j</i>_C-Measurement Method. Plasma and Fusion Research, 2013, 8, 2401025-2401025.	0.7	0
64	Investigation of Numerical Stability of Electromagnetic Wave Propagation Simulation using Meshless Time-Domain Method. Plasma and Fusion Research, 2013, 8, 2401101-2401101.	0.7	1
65	Three-Dimensional Analysis of Electromagnetic Wave Propagation using Meshless Time Domain Method. Plasma and Fusion Research, 2013, 8, 2401061-2401061.	0.7	1
66	Anisotropic Graphite Erosion in Low-Temperature and High-Density Deuterium Plasma. Japanese Journal of Applied Physics, 2012, 51, 01AB03.	1.5	2
67	Anisotropic Bond Orientation of Amorphous Carbon by Deposition. Japanese Journal of Applied Physics, 2012, 51, 01AC05.	1.5	2
68	Accurate and Stable Numerical Method for Analyzing Shielding Current Density in High-Temperature Superconducting Film Containing Cracks. Plasma and Fusion Research, 2012, 7, 2405024-2405024.	0.7	3
69	Plasma Model for Energy Transformation Mechanism of Non-Thermal Microwave Effect. Plasma and Fusion Research, 2012, 7, 1206012-1206012.	0.7	3
70	Application of Collocation Meshless Method to Eigenvalue Problem. Plasma and Fusion Research, 2012, 7, 2406096-2406096.	0.7	2
71	Numerical Simulation of Electromagnetic Wave Propagation using Time Domain Meshless Method. Plasma and Fusion Research, 2012, 7, 2406044-2406044.	0.7	1
72	Transport-Coefficient Dependence of Current-Induced Cooling Effect in a Two-Dimensional Electron Gas. Journal of Electronic Materials, 2012, 41, 1535-1539.	2.2	0

#	Article	IF	Citations
73	Thermomagnetic Effect in the Quantum Hall System. Journal of Electronic Materials, 2012, 41, 1540-1545.	2.2	2
74	Numerical Investigation on Accuracy and Resolution of Contactless Methods for Measuring <i>j</i>_Cin High-Temperature Superconducting Film: Inductive Method and Permanent Magnet Method. Plasma and Fusion Research, 2012, 7, 2405017-2405017.	0.7	2
75	Anisotropic Bond Orientation of Amorphous Carbon by Deposition. Japanese Journal of Applied Physics, 2012, 51, 01AC05.	1.5	6
76	Implicit Function with Natural Behavior over Entire Domain. Plasma and Fusion Research, 2012, 7, 2406068-2406068.	0.7	0
77	Anisotropic Graphite Erosion in Low-Temperature and High-Density Deuterium Plasma. Japanese Journal of Applied Physics, 2012, 51, 01AB03.	1.5	0
78	Dissipative Particle Dynamics Simulation of Phase Behavior in Bolaamphiphilic Solution. Plasma and Fusion Research, 2011, 6, 2401116-2401116.	0.7	3
79	Molecular Dynamics Simulation of Micellar Shape Change in Amphiphilic Solution. Plasma and Fusion Research, 2011, 6, 2401040-2401040.	0.7	6
80	Hybrid simulation between molecular dynamics and binary collision approximation codes for hydrogen injection into carbon materials. Journal of Nuclear Materials, 2011, 415, S208-S211.	2.7	15
81	Temperature distribution in nano-devices under a strong magnetic field. Computer Physics Communications, 2011, 182, 90-92.	7.5	3
82	Temperature Distribution in Two-Dimensional Electron Gases under a Strong Magnetic Field. Journal of Electronic Materials, 2011, 40, 529-532.	2.2	3
83	Quantum Oscillations of Thermoelectric Effects in a Pseudo-one-dimensional Electron Gas With a Spinâ€“Orbit Interaction. Journal of Electronic Materials, 2011, 40, 601-605.	2.2	3
84	Bracelet-Shaped Thermal Display for Representing Numerical Data. Journal of Electronic Materials, 2011, 40, 823-829.	2.2	1
85	Extension of Binary-Collision-Approximation-Based Simulation Applicable to Any Structured Target Material. Japanese Journal of Applied Physics, 2011, 50, 01AB03.	1.5	7
86	Reaction between graphene and hydrogen under oblique injection. Journal of Applied Physics, 2011, 110, 084320.	2.5	5
87	Molecular Dynamics Simulation of Chemical Vapor Deposition of Amorphous Carbon: Dependence on H/C Ratio of Source Gas. Japanese Journal of Applied Physics, 2011, 50, 01AB01.	1.5	4
88	How to Combine Binary Collision Approximation and Multi-Body Potential for Molecular Dynamics. Progress in Nuclear Science and Technology, 2011, 2, 44-50.	0.3	11
89	Molecular Dynamics Simulation of Chemical Vapor Deposition of Amorphous Carbon: Dependence on H/C Ratio of Source Gas. Japanese Journal of Applied Physics, 2011, 50, 01AB01.	1.5	1
90	Extension of Binary-Collision-Approximation-Based Simulation Applicable to Any Structured Target Material. Japanese Journal of Applied Physics, 2011, 50, 01AB03.	1.5	5

#	Article	IF	Citations
91	Molecular Dynamics Simulation of Hydrogen Injection onto Diamond Surfaces. Japanese Journal of Applied Physics, 2011, 50, 01AB04.	1.5	3
92	Effect of Molecular Rigidity on Micelle Formation in Amphiphilic Solution. Plasma and Fusion Research, 2010, 5, S2114-S2114.	0.7	5
93	FDTD Simulated Observation of a Gold Nanorod by Scanning Near-Field Optical Microscopy. Plasma and Fusion Research, 2010, 5, S2110-S2110.	0.7	2
94	Haptization on Numerical Simulation of Plasma. IEEE Transactions on Plasma Science, 2010, 38, 2974-2979.	1.3	2
95	Examination of Temperature Dependence of Chemical Sputtering on Graphite by Comparing the Langevin and Berendsen Thermostats. Plasma and Fusion Research, 2010, 5, S2020-S2020.	0.7	3
96	Comparison of Hydrogen Adsorption on Diamond and Graphite Surfaces. Plasma and Fusion Research, 2010, 5, S2072-S2072.	0.7	1
97	Molecular Dynamics Simulation of the Incident Angle Dependence of Reactions between Graphene and Hydrogen Atom. Plasma and Fusion Research, 2010, 5, S2076-S2076.	0.7	7
98	Fundamental relation between longitudinal and transverse conductivities in the quantum Hall system. Journal of Physics Condensed Matter, 2009, 21, 345803.	1.8	8
99	Simulation of Electric Quadrupole and Magnetic Dipole Transition Efficiencies in Optical Near Fields Generated by a Subwavelength Slit Array. Journal of the Physical Society of Japan, 2009, 78, 024301.	1.6	9
100	Energy Current on Multi-Body Potential with Dirac Delta Function. Progress of Theoretical Physics Supplement, 2009, 178, 107-112.	0.1	3
101	Molecular dynamics simulation of hydrogen atom sputtering on the surface of graphite with defect and edge. Journal of Nuclear Materials, 2009, 390-391, 183-187.	2.7	31
102	Hydrogen isotope sputtering of graphite by molecular dynamics simulation. Thin Solid Films, 2008, 516, 6553-6559.	1.8	20
103	Numerical analysis of the magneto-Seebeck effect of bismuth with anisotropic band structure. Journal of Applied Physics, 2008, 103, 043717.	2.5	11
104	Molecular Dynamics Simulation of the Chemical Interaction between Hydrogen Atom and Graphene. Journal of the Physical Society of Japan, 2008, 77, 114602.	1.6	48
105	Erosion of Graphene in Hydrogen Atom Gas. Japanese Journal of Applied Physics, 2008, 47, 4715.	1.5	6
106	Influence of the band structure of BiSb alloy on the magneto-Seebeck coefficient. Journal of Applied Physics, 2008, 104, .	2.5	19
107	Power factor enhancement in a magnetic field using polycrystalline bismuth microwire arrays. Journal of Applied Physics, 2007, 102, 073701.	2.5	14
108	Non-Abelian gauge field theory of the spin-orbit interaction and a perfect spin filter. Physical Review A, 2007, 75, .	2.5	100

#	Article	IF	Citations
109	Aspect ratio dependence of magnetoresistivity in polycrystalline bismuth microwire arrays. Journal of Applied Physics, 2007, 101, 033704.	2.5	21
110	Quasibound States in the Continuum in a Two Channel Quantum Wire with an Adatom. Physical Review Letters, 2007, 99, 210404.	7.8	54
111	Gap-mediated magnetization of a pseudo-one-dimensional system with a spinâ€“orbit interaction. Solid State Communications, 2007, 141, 79-83.	1.9	3
112	Molecular Dynamics Simulation for Structure Formation of Single Polymer Chain in Solution. Journal of the Physical Society of Japan, 2006, 75, 024605.	1.6	16
113	Dependence of a self-assembled amphiphile structure on the interaction between hydrophilic groups. Journal of Plasma Physics, 2006, 72, 1001.	2.1	6
114	Molecular dynamics simulation of collisions between hydrogen and graphite. Journal of Plasma Physics, 2006, 72, 805.	2.1	29
115	Construction of Integrated Virtual Environment for Numerical Simulation and Visualization in Immersive Projection Technology. IEEJ Transactions on Electronics, Information and Systems, 2006, 126, 401-402.	0.2	1
116	Quantum Nernst effect. Solid State Communications, 2005, 135, 510-514.	1.9	14
117	Phase diagram for self-assembly of amphiphilic molecule C12E6 by dissipative particle dynamics simulation. Computer Physics Communications, 2005, 169, 139-143.	7.5	11
118	Reduction of contact resistance at terminations of bismuth wire arrays. Review of Scientific Instruments, 2005, 76, 113902.	1.3	26
119	Electronic transport properties of a bismuth microwire array in a magnetic field. Journal of Applied Physics, 2005, 97, 083907.	2.5	26
120	Impurity Effect in the Quantum Nernst Effect. E-Journal of Surface Science and Nanotechnology, 2005, 3, 518-523.	0.4	7
121	Dynamics of orientationally ordered domains in a short chain-molecule system: Size dependence of domain oscillation. Computer Physics Communications, 2002, 147, 346-349.	7.5	0
122	Dynamical process of coalescence of domains in a short chain-molecule system. Computer Physics Communications, 2001, 142, 127-130.	7.5	2
123	FDTD simulation of tapered structure of near-field fiber probe. Computer Physics Communications, 2001, 142, 464-467.	7.5	12
124	Virtual reality system to visualize and auralize numerical simulation data. Computer Physics Communications, 2001, 142, 227-230.	7.5	8
125	Rigidity of Orientationally Ordered Domains of Short Chain Molecules. Journal of the Physical Society of Japan, 2001, 70, 943-946.	1.6	1
126	Spatial Resolution of Near-Field Scanning Optical Microscopy with Sub-Wavelength Aperture. Progress of Theoretical Physics Supplement, 2000, 138, 173-174.	0.1	8

#	Article	IF	Citations
127	Transport Coefficients of Indium Antimonide in a Magnetic Field. Japanese Journal of Applied Physics, 1999, 38, 5745-5749.	1.5	7
128	Universal low-temperature properties of quantum and classical ferromagnetic chains. Physical Review B, 1996, 54, R744-R747.	3.2	16
129	Universal Finite-Size Scaling Function of the Ferromagnetic Heisenberg Chain in a Magnetic Field. Journal of the Physical Society of Japan, 1995, 64, 1955-1966.	1.6	6
130	Universal Finite-Size Scaling Function of the Ferromagnetic Heisenberg Chain in a Magnetic Field. II â€“Nonlinear Susceptibilityâ€“. Journal of the Physical Society of Japan, 1995, 64, 4142-4155.	1.6	5
131	The Free Energy and the Scaling Function of the Ferromagnetic Heisenberg Chain in a Magnetic Field. Journal of the Physical Society of Japan, 1994, 63, 2563-2571.	1.6	19
132	Molecular Dynamics Simulation of Hydrogen Injection onto Diamond Surfaces. Japanese Journal of Applied Physics, 0, 50, 01AB04.	1.5	3
133	Isotope effect of rovibrational distribution of hydrogen molecules desorbed from amorphous carbon. Japanese Journal of Applied Physics, 0, , .	1.5	1