## Hiroki Yamaguchi

List of Publications by Year in descending order

Source: https://exaly.com/author-pdf/4219306/publications.pdf

Version: 2024-02-01

93 papers

872 citations

471509 17 h-index 552781 26 g-index

94 all docs 94 docs citations

times ranked

94

739 citing authors

#	Article	IF	CITATIONS
1	Experimental measurement on tangential momentum accommodation coefficient in a single microtube. Microfluidics and Nanofluidics, 2011, 11, 57-64.	2.2	63
2	Pressure-sensitive molecular film for investigation of micro gas flows. Microfluidics and Nanofluidics, 2011, 10, 165-171.	2.2	55
3	Dual luminescent arrays sensor fabricated by inkjet-printing of pressure- and temperature-sensitive paints. Sensors and Actuators B: Chemical, 2014, 190, 70-77.	7.8	47
4	ZnS–AgInS2 nanoparticles as a temperature sensor. Sensors and Actuators B: Chemical, 2013, 176, 505-508.	7.8	42
5	Trampoline motions in Xe–graphite(0001) surface scattering. Chemical Physics Letters, 2005, 413, 331-334.	2.6	34
6	Mass flow rate measurement of thermal creep flow from transitional to slip flow regime. Journal of Fluid Mechanics, 2016, 795, 690-707.	3.4	34
7	Energy transfer in hyperthermal Xe-graphite surface scattering. European Physical Journal D, 2006, 38, 103-109.	1.3	32
8	Pressure-sensitive channel chip for visualization measurement of micro gas flows. Microfluidics and Nanofluidics, 2011, 11, 507-510.	2.2	31
9	Investigation on heat transfer between two coaxial cylinders for measurement of thermal accommodation coefficient. Physics of Fluids, 2012, 24, .	4.0	27
10	Electric Conductive Pattern Element Fabricated Using Commercial Inkjet Printer for Paper-Based Analytical Devices. Analytical Chemistry, 2015, 87, 5762-5765.	6.5	24
11	Polymer-Particle Pressure-Sensitive Paint with High Photostability. Sensors, 2016, 16, 550.	3.8	23
12	Thermal transpiration flow through a single rectangular channel. Journal of Fluid Mechanics, 2014, 744, 169-182.	3.4	22
13	Molecular-dynamics study on characteristics of energy and tangential momentum accommodation coefficients. Physical Review E, 2017, 96, 013116.	2.1	22
14	Estimation of diffusive states from single-particle trajectory in heterogeneous medium using machine-learning methods. Physical Chemistry Chemical Physics, 2018, 20, 24099-24108.	2.8	21
15	Inhomogeneous decomposition of ultrathin oxide films on Si(100): Application of Avrami kinetics to thermal desorption spectra. Journal of Chemical Physics, 2008, 128, 164712.	3.0	20
16	Development of fast response bi-luminophore pressure-sensitive paint by means of an inkjet printing technique. Measurement Science and Technology, 2015, 26, 064004.	2.6	20
17	Extension and characterization of pressure-sensitive molecular film. Experiments in Fluids, 2009, 47, 1025-1032.	2.4	19
18	Organic Electroluminescent Sensor for Pressure Measurement. Sensors, 2012, 12, 13899-13906.	3.8	17

#	Article	IF	CITATIONS
19	Reduction of Temperature Effects in Pressure-Sensitive Paint Measurements. AIAA Journal, 2013, 51, 1779-1783.	2.6	16
20	Fine printing of pressure- and temperature-sensitive paints using commercial inkjet printer. Sensors and Actuators B: Chemical, 2017, 250, 563-568.	7.8	16
21	Design and demonstration of Knudsen heat pump without moving parts free from electricity. Applied Energy, 2019, 250, 1260-1269.	10.1	16
22	Pressure-sensitive paint measurement on co-rotating disks in a hard disk drive. Optics and Lasers in Engineering, 2012, 50, 82-86.	3.8	15
23	Unsteady 2D measurement of dissolved oxygen distribution using luminescent sensor film. Sensors and Actuators B: Chemical, 2011, 160, 1464-1467.	7.8	14
24	Measurement of thermal accommodation coefficients using a simplified system in a concentric sphere shells configuration. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2014, 32, .	2.1	14
25	Property changes of temperature-sensitive paint immobilized in acrylic polymer matrices. Sensors and Actuators B: Chemical, 2014, 195, 677-681.	7.8	14
26	Conductive heat transfer in a gas confined between two concentric spheres: From free-molecular to continuum flow regime. International Journal of Heat and Mass Transfer, 2017, 108, 1527-1534.	4.8	14
27	A novel heat pump system using a multi-stage Knudsen compressor. International Journal of Heat and Mass Transfer, 2018, 127, 84-91.	4.8	14
28	Simultaneous measurement of gas-liquid interface motion and temperature distribution on heated surface using temperature-sensitive paint. International Journal of Heat and Mass Transfer, 2020, 153, 119567.	4.8	13
29	Viscous slip coefficients for binary gas mixtures measured from mass flow rates through a single microtube. Physics of Fluids, 2016, 28, 092001.	4.0	12
30	Tangential Momentum Accommodation Coefficient measurements for various materials and gas species. Journal of Physics: Conference Series, 2012, 362, 012035.	0.4	11
31	Unsteady pressure-sensitive paint measurement based on the heterodyne method using low frame rate camera. Review of Scientific Instruments, 2013, 84, 105110.	1.3	11
32	Performance prediction method for a multi-stage Knudsen pump. Physics of Fluids, 2017, 29, 122002.	4.0	11
33	Discussion on measurement mechanism of pressure-sensitive paints. Sensors and Actuators B: Chemical, 2009, 142, 224-229.	7.8	9
34	Molecular dynamics study on flow structure inside a thermal transpiration flow field. Physics of Fluids, 2021, 33, .	4.0	9
35	Faster Convergence of Diffusion Anisotropy Detection by Three-Step Relation of Single-Particle Trajectory. Analytical Chemistry, 2016, 88, 4502-4507.	6.5	8
36	Impact cratering on a granular bed by hydrogel spheres having intermediate property between solid and liquid. Physical Review E, 2019, 99, 032906.	2.1	8

3

#	Article	IF	Citations
37	Measurement of conductive heat transfer through rarefied binary gas mixtures. Vacuum, 2019, 160, 164-170.	3.5	8
38	Out-of-plane Scattering Distribution of Nitrogen Molecular Beam on Graphite (0001) Surface. AIP Conference Proceedings, 2005, , .	0.4	6
39	Electrophoretic Separation on an Origami Paper-Based Analytical Device Using a Portable Power Bank. Sensors, 2019, 19, 1724.	3.8	6
40	Combined pressure and temperature sensor using pressure- and temperature-sensitive paints. , 2012, , .		5
41	Micro-molecular tagging velocimetry of internal gaseous flow. Microfluidics and Nanofluidics, 2016, 20, 1.	2.2	5
42	Direct Simulation Monte Carlo Method on Rarefied Hypersonic Gas Flow Around Flat Plates. Journal of Spacecraft and Rockets, 2004, 41, 397-405.	1.9	4
43	Ab Initio Studies of the Surface Reaction of Si <sub>2</sub> C and SiC <sub>2</sub> with Si on the 4H-SiC (000-1) Surface. Materials Science Forum, 2006, 527-529, 235-238.	0.3	4
44	Molecular Dynamics Study on Rare Gas-Graphite (0001) Surface Scattering., 2008,,.		4
45	Measurement and Analysis of Rotational Energy of Nitrogen Molecular Beam by REMPI. , 2008, , .		4
46	Error Analysis of Pressure-Sensitive Paint Measurement. 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2011, 77, 1189-1200.	0.2	4
47	Combined Pressure-/Temperature-Sensitive Paint Arranged in Dot Array. 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2012, 78, 1327-1335.	0.2	4
48	Experimental measurements of thermal and tangential momentum accommodation coefficients on solid surfaces: Water vapor in comparison with noble gases. International Journal of Heat and Mass Transfer, 2022, 183, 122195.	4.8	4
49	Multiscale analysis for dissociative adsorption of SiH4 on Si(100) surface. Surface and Coatings Technology, 2006, 200, 3385-3388.	4.8	3
50	A Discusion of Spatial Resolution of Pressure-Sensitive Paint. 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2012, 78, 1260-1266.	0.2	3
51	Single-molecule tracking measurement of PDMS layer during curing process. Physica A: Statistical Mechanics and Its Applications, 2021, 565, 125576.	2.6	3
52	Measurement of the rotational temperature in a nitrogen molecular beam by REMPI. AIP Conference Proceedings, 2012, , .	0.4	2
53	Dynamics of impact cratering on granular bed by hydrogel sphere. Physics of Fluids, 2020, 32, 067112.	4.0	2
54	Thermal Decomposition Process of Ultrathin Oxide Layers on Si(100). Hyomen Kagaku, 2008, 29, 537-542.	0.0	2

#	Article	IF	CITATIONS
55	Extraction of Tangential Momentum and Normal Energy Accommodation Coefficients by Comparing Variational Solutions of the Boltzmann Equation with Experiments on Thermal Creep Gas Flow in Microchannels. Fluids, 2021, 6, 445.	1.7	2
56	3D DSMC Simulation of rarefied hypersonic flow over a sharp flat plate. AIP Conference Proceedings, 2001, , .	0.4	1
57	Interaction between a Shock Wave and a Boundary Layer in a Nonequilibrium Hypersonic Rarefied Flow. 2nd Report. Comparison of State for Translational and Rotational Energy Distributions 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2002. 68. 1653-1660.	0.2	1
58	Vibrational Relaxation/Excitation Collision Model of Diatomic Molecules for Rarefied Gas Flows. AIP Conference Proceedings, 2005, , .	0.4	1
59	Discussion on Mechanism of Pressure-Sensitive Paints. 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2007, 73, 112-117.	0.2	1
60	Development of Pressure Sensitive Molecular Film as a Measurement Technique for Micro-Flows. , 2008, , .		1
61	Development of Pressure Sensitive Molecular Film Composed of Platinum Porphyrin Complex. 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2008, 74, 385-391.	0.2	1
62	Experimental Measurement of Energy Accommodation Coefficient by Low-Pressure Method., 2009,,.		1
63	Experimental Study on Measurement of Tangential Momentum Accommodation Coefficient in Microtube. , $2010,  ,  .$		1
64	Pressure Distribution Measurement on a Rotating Disk Surface by Pressure-Sensitive Paint (Mechanical) Tj ETQqC Engineers, Part C, 2010, 76, 3002-3007.	0 0 0 rgBT / 0.2	Overlock 10 <sup>-</sup>
65	Experimental Study on Rotational Temperatures in Nitrogen Molecular Beam. 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2011, 77, 282-291.	0.2	1
66	Development of Pressure-Sensitive Channel Chip for Micro Gas Flows. Journal of Physics: Conference Series, 2012, 362, 012036.	0.4	1
67	Reduction of Temperature Effect in Pressure-Sensitive Paint Measurements by Model Materials and Coatings. , 2012, , .		1
68	Single particle tracking study on diffusion process in a polymer matrix. , 2014, , .		1
69	Study on diffusion process of nanoparticles in a PDMS layer using SPT technique. , 2015, , .		1
70	Measurement of Heat Transfer from Anodic Oxide Film on Aluminum in High Knudsen Number Flows. Micromachines, 2020, 11, 234.	2.9	1
71	Discussion on Luminescent Intensity of Pressure Sensitive Paint. , 2007, , .		1
72	Measurement of Oxygen Concentration Distribution inside a Mixing Channel using Oxygen Sensitive Luminophore. Transactions of Visualization Soc of Japan, 2009, 29, 27-33.	0.2	1

#	Article	IF	CITATIONS
73	Application of MTV to Internal GaseousFlow through Rectangular Channel. Transactions of Visualization Soc of Japan, 2012, 32, 15-20.	0.2	1
74	Interaction between Shock Waves and Boundary Layer in Non-Equilibrium Hypersonic Rarefield Flow. 1st Report. Comparison with Continuum Model and Larsen-Borgnakke Model 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2000, 66, 1377-1386.	0.2	0
75	Vibrational Relaxation of Diatomic Molecules in Rarefied Gas Flows. AIP Conference Proceedings, 2003, , .	0.4	O
76	Modeling of a Vibrational Transition Collisional Model for Diatomic Molecules (1st Report,) Tj ETQq0 0 0 rgBT /Ov Society of Mechanical Engineers Series B B-hen, 2008, 74, 1694-1699.	erlock 10 0.2	Tf 50 627 Td O
77	Discussion on Mechanism of Pressure-Sensitive Paint through Application to High Knudsen Number Regime(Fluids Engineering). 880-02 Nihon Kikai Gakkai Ronbunshū Transactions of the Japan Society of Mechanical Engineers Series B B-hen, 2009, 75, 730-735.	0.2	0
78	Pressure measurement of gas flows through a micro-channel by phosphorescence dye., 2013,,.		0
79	Development of Organic Electroluminescent Sensor for Pressure/Oxygen Measurement., 2013,,.		0
80	Combined PSPï½¥TSP sensor fabricated with inkjet-printing technique. Journal of the Visualization Society of Japan, 2014, 34, 28-34.	0.0	0
81	Investigation of inkjet printing conditions for microdot pressure-sensitive sensor on anodized aluminum substrate. Transactions of the JSME (in Japanese), 2014, 80, FE0040-FE0040.	0.2	0
82	æµë½"力å¦ã«ãŠã'ã,‹å¸Œè—"気体ã®ã,·ãƒŸãƒ¥ãƒ¬ãƒ¼ã,·ãƒ§ãƒ³ã®èª²é¡Œ. Shinku/Journal of the Vacuum So	ci <b>ety</b> of Ja <sub>l</sub>	paon, 2006, 4
83	Development of Pressure Sensitive Molecular Film Suitable for Measurement in High Knudsen Number Flows., 2007,,.		0
84	Measurement of Oxygen Concentration Distribution inside a Mixing Channel using Oxygen Sensitive Luminophore. Transactions of Visualization Soc of Japan, 2009, 29, 51-57.	0.2	0
85	Pressure-Sensitive Paint Measurement on Co-Rotating Disks. , 2010, , .		O
86	Pressure-Sensitive Molecular Film for Experimental Analyses of Micro Gas-Flows., 2011,,.		0
87	J053011 Development of combined pressure and temperature sensor using PtTFPP and CdSe/ZnS. The Proceedings of Mechanical Engineering Congress Japan, 2012, 2012, _J053011-1J053011-4.	0.0	0
88	J053044 Micro Gas Flow Measurement by Pressure-Sensitive Molecular Film. The Proceedings of Mechanical Engineering Congress Japan, 2013, 2013, _J053044-1J053044-3.	0.0	0
89	Pressure-Sensitive Molecular Film. , 2013, , 1-10.		0
90	J053035 Study on fundamental characteristics of Knudsen pump. The Proceedings of Mechanical Engineering Congress Japan, 2013, 2013, _J053035-1J053035-4.	0.0	0

#	Article	IF	CITATIONS
91	J0550103 Measurement of tangential momentum accommodation coefficient by using a micro-channel. The Proceedings of Mechanical Engineering Congress Japan, 2014, 2014, _J0550103J0550103	0.0	O
92	J0540106 Mass Flow Rate Measurement of Water Molecules through a Micro-channel. The Proceedings of Mechanical Engineering Congress Japan, 2015, 2015, _J0540106J0540106	0.0	0
93	FRET Measurement of Polymer Response under Shear. Sensors, 2021, 21, 8033.	3.8	O