

Neisei Hayashi

List of Publications by Year in descending order

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95
papers

1,199
citations

393982

19
h-index

414034

32
g-index

96
all docs

96
docs citations

96
times ranked

454
citing authors

#	ARTICLE	IF	CITATIONS
1	Ultrahigh-speed distributed Brillouin reflectometry. <i>Light: Science and Applications</i> , 2016, 5, e16184-e16184.	7.7	166
2	Brillouin gain spectrum dependence on large strain in perfluorinated graded-index polymer optical fiber. <i>Optics Express</i> , 2012, 20, 21101.	1.7	64
3	Distributed Brillouin Sensing With Centimeter-Order Spatial Resolution in Polymer Optical Fibers. <i>Journal of Lightwave Technology</i> , 2014, 32, 3999-4003.	2.7	59
4	Experimental study on depolarized GAWBS spectrum for optomechanical sensing of liquids outside standard fibers. <i>Optics Express</i> , 2017, 25, 2239.	1.7	57
5	Observation of polymer optical fiber fuse. <i>Applied Physics Letters</i> , 2014, 104, 043302.	1.5	41
6	Ultra-Sensitive Strain and Temperature Sensing Based on Modal Interference in Perfluorinated Polymer Optical Fibers. <i>IEEE Photonics Journal</i> , 2014, 6, 1-7.	1.0	40
7	Brillouin scattering in multi-core optical fibers for sensing applications. <i>Scientific Reports</i> , 2015, 5, 11388.	1.6	38
8	Slope-Assisted Brillouin Optical Correlation-Domain Reflectometry: Proof of Concept. <i>IEEE Photonics Journal</i> , 2016, 8, 1-7.	1.0	37
9	Temperature coefficient of sideband frequency produced by polarized guided acoustic-wave Brillouin scattering in highly nonlinear fibers. <i>Applied Physics Express</i> , 2017, 10, 092501.	1.1	33
10	Wide-range temperature dependences of Brillouin scattering properties in polymer optical fiber. <i>Japanese Journal of Applied Physics</i> , 2014, 53, 042502.	0.8	32
11	Operation of slope-assisted Brillouin optical correlation-domain reflectometry: comparison of system output with actual frequency shift distribution. <i>Optics Express</i> , 2016, 24, 29190.	1.7	32
12	Slope-Assisted Brillouin Optical Correlation-Domain Reflectometry Using Polymer Optical Fibers With High Propagation Loss. <i>Journal of Lightwave Technology</i> , 2017, 35, 2306-2310.	2.7	32
13	Brillouin scattering signal in polymer optical fiber enhanced by exploiting pulsed pump with multimode-fiber-assisted coupling technique. <i>Optics Letters</i> , 2013, 38, 1467.	1.7	28
14	Observation of depolarized guided acoustic-wave Brillouin scattering in partially uncoated optical fibers. <i>Japanese Journal of Applied Physics</i> , 2018, 57, 020307.	0.8	26
15	Optical correlation-domain reflectometry without optical frequency shifter. <i>Applied Physics Express</i> , 2016, 9, 032702.	1.1	24
16	Brillouin frequency shift hopping in polymer optical fiber. <i>Applied Physics Letters</i> , 2014, 105, .	1.5	23
17	Propagation mechanism of polymer optical fiber fuse. <i>Scientific Reports</i> , 2015, 4, 4800.	1.6	22
18	Measurement of large-strain dependence of optical propagation loss in perfluorinated polymer fibers for use in seismic diagnosis. <i>IEICE Electronics Express</i> , 2014, 11, 20140707-20140707.	0.3	21

#	ARTICLE	IF	CITATIONS
19	Simplified optical correlation-domain reflectometry without reference path. <i>Applied Optics</i> , 2016, 55, 3925.	2.1	20
20	Drastic sensitivity enhancement of temperature sensing based on multimodal interference in polymer optical fibers. <i>Applied Physics Express</i> , 2015, 8, 072502.	1.1	19
21	Multimodal Interference in Perfluorinated Polymer Optical Fibers: Application to Ultrasensitive Strain and Temperature Sensing. <i>IEICE Transactions on Electronics</i> , 2018, E101.C, 602-610.	0.3	19
22	Measurement of Acoustic Velocity in Poly(methyl methacrylate)-Based Polymer Optical Fiber for Brillouin Frequency Shift Estimation. <i>Applied Physics Express</i> , 2011, 4, 102501.	1.1	18
23	Single-end-access strain and temperature sensing based on multimodal interference in polymer optical fibers. <i>IEICE Electronics Express</i> , 2017, 14, 20161239-20161239.	0.3	18
24	Strain and temperature sensing based on multimode interference in partially chlorinated polymer optical fibers. <i>IEICE Electronics Express</i> , 2015, 12, 20141173-20141173.	0.3	17
25	Polymer optical fiber tapering without the use of external heat source and its application to refractive index sensing. <i>Applied Physics Express</i> , 2015, 8, 072501.	1.1	15
26	Dependences of Brillouin frequency shift on strain and temperature in optical fibers doped with rare-earth ions. <i>Journal of Applied Physics</i> , 2012, 112, 043109.	1.1	14
27	Observation of Brillouin gain spectrum in tapered polymer optical fiber. <i>Journal of Applied Physics</i> , 2014, 115, 173108.	1.1	14
28	Simplified Brillouin Optical Correlation-Domain Reflectometry Using Polymer Optical Fiber. <i>IEEE Photonics Journal</i> , 2015, 7, 1-7.	1.0	14
29	Single-end-access distributed strain sensing with wide dynamic range using higher-speed Brillouin optical correlation-domain reflectometry. <i>Japanese Journal of Applied Physics</i> , 2017, 56, 072501.	0.8	12
30	Dependence of Brillouin Frequency Shift on Temperature and Strain in Poly(methyl Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 307 Td (metha Physics Express, 2012, 5, 032502.	1.1	11
31	Characterization of Stimulated Brillouin Scattering in Polymer Optical Fibers Based on Lock-in-Free Pump-Probe Technique. <i>Journal of Lightwave Technology</i> , 2013, 31, 3162-3166.	2.7	11
32	Brillouin gain spectrum dependences on temperature and strain in erbium-doped optical fibers with different erbium concentrations. <i>Applied Physics Letters</i> , 2013, 102, 191906.	1.5	11
33	Spiral Propagation of Polymer Optical Fiber Fuse Accompanied by Spontaneous Burst and Its Real-Time Monitoring Using Brillouin Scattering. <i>IEEE Photonics Journal</i> , 2014, 6, 1-7.	1.0	10
34	Simplified Configuration of Brillouin Optical Correlation-Domain Reflectometry. <i>IEEE Photonics Journal</i> , 2014, 6, 1-7.	1.0	10
35	Thermal Memory Effect in Polymer Optical Fibers. <i>IEEE Photonics Technology Letters</i> , 2015, 27, 1394-1397.	1.3	10
36	Observation of Backward Guided-Acoustic-Wave Brillouin Scattering in Optical Fibers Using Pump-Probe Technique. <i>IEEE Photonics Journal</i> , 2016, 8, 1-7.	1.0	10

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37	Temperature sensing based on multimodal interference in polymer optical fibers: Room-temperature sensitivity enhancement by annealing. Japanese Journal of Applied Physics, 2017, 56, 078002.	0.8	10
38	Simplified optical correlation-domain reflectometry employing proximal reflection point. Japanese Journal of Applied Physics, 2016, 55, 128003.	0.8	10
39	Broad and Flat Brillouin Gain Spectrum in Optical Fiber Obtained by Modulating Driving Current of Laser Diode. Japanese Journal of Applied Physics, 2013, 52, 058003.	0.8	9
40	Simplified optical correlation-domain reflectometry using polymer fiber. IEICE Electronics Express, 2015, 12, 20150824-20150824.	0.3	9
41	Hydrostatic pressure dependence of Brillouin frequency shift in polymer optical fibers. Applied Physics Express, 2018, 11, 012502.	1.1	9
42	Noise suppression technique for distributed Brillouin sensing with polymer optical fibers. Optics Letters, 2019, 44, 2097.	1.7	9
43	Pilot demonstration of correlation-domain distributed temperature sensing using forward Brillouin scattering. Japanese Journal of Applied Physics, 2020, 59, 088002.	0.8	9
44	Alternative Implementation of Simplified Brillouin Optical Correlation-Domain Reflectometry. IEEE Photonics Journal, 2014, 6, 1-8.	1.0	8
45	Fiber-Optic Interferometry Using Narrowband Light Source and Electrical Spectrum Analyzer: Influence on Brillouin Measurement. Journal of Lightwave Technology, 2014, 32, 4734-4740.	2.7	8
46	Phase-detected Brillouin optical correlation-domain reflectometry. Optical Review, 2018, 25, 473-485.	1.2	8
47	Polarization-Insensitive Laser Scanning and Profiling Using Amplitude-Modulated CW Scheme. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 4496-4506.	2.4	8
48	Suppression of ghost correlation peak in Brillouin optical correlation-domain reflectometry. Applied Physics Express, 2014, 7, 112501.	1.1	7
49	Strain and temperature dependencies of multimodal interference spectra in hetero-core-fiber structures. Japanese Journal of Applied Physics, 2020, 59, 058002.	0.8	7
50	Potential Applicability of Brillouin Scattering in Partially Chlorinated Polymer Optical Fibers to High-Precision Temperature Sensing. Applied Physics Express, 2013, 6, 052501.	1.1	6
51	Brillouin characterization of slimmed polymer optical fibers for strain sensing with extremely wide dynamic range. Optics Express, 2018, 26, 28030.	1.7	6
52	In-process measurement of a keyhole using a low-coherence interferometer with a high repetition rate. Optics Express, 2021, 29, 32169.	1.7	5
53	Characterization of cascaded forward Brillouin scattering seeded by backward stimulated Brillouin scattering in optical fibers. IEICE Electronics Express, 2020, 17, 20200139-20200139.	0.3	5
54	Fast Flaw Detection in Polymer Optical Fibers with Infrared Thermometer. Applied Physics Express, 2013, 6, 076601.	1.1	4

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55	Refractive index sensing using V-shaped polymer optical fibers. Japanese Journal of Applied Physics, 2015, 54, 118001.	0.8	4
56	Polarization scrambling in Brillouin optical correlation-domain reflectometry using polymer fibers. Applied Physics Express, 2015, 8, 062501.	1.1	4
57	Temperature dependence of Brillouin frequency shift in polymers controlled by plasticization effect. Journal of Applied Physics, 2015, 117, .	1.1	4
58	Characterization of depolarized GAWBS for optomechanical sensing of liquids outside standard fibers. , 2017, , .		4
59	Observation of Brillouin gain spectrum in optical fibers in telecommunication band: Effect of pump wavelength. IEICE Electronics Express, 2016, 13, 20151066-20151066.	0.3	3
60	Dependence of Brillouin frequency shift on temperature in poly(pentafluorostyrene)-based polymer optical fibers estimated by acoustic velocity measurement. IEICE Electronics Express, 2014, 11, 20140285-20140285.	0.3	2
61	Brillouin signal amplification in pumped erbium-doped optical fiber. IEICE Electronics Express, 2014, 11, 20140627-20140627.	0.3	2
62	Dependence of Brillouin frequency shift on water absorption ratio in polymer optical fibers. Journal of Applied Physics, 2016, 119, 223102.	1.1	2
63	Refractive index sensing using ultrasonically crushed polymer optical fibers. Applied Physics Express, 2017, 10, 012201.	1.1	2
64	First observation of Brillouin scattering in tapered plastic optical fiber. , 2014, , .		1
65	High-performance Brillouin optical correlation-domain reflectometry. , 2015, , .		1
66	Measurement of the optical path length difference in an interferometer using a sinusoidally frequency-modulated light source. Applied Optics, 2016, 55, 2904.	2.1	1
67	Temperature sensing based on multimodal interference in plastic optical fibers: Sensitivity enhancement by annealing. , 2017, , .		1
68	Experimental observation of spontaneous depolarized guided acoustic-wave Brillouin scattering in side cores of a multicore fiber. Applied Physics Express, 2018, 11, 062502.	1.1	1
69	Distributed Brillouin Sensing Using Polymer Optical Fibers. , 2018, , 97-135.		1
70	Correlation-domain distributed temperature sensing based on enhanced forward Brillouin scattering. , 2019, , .		1
71	Brillouin scattering in plastic optical fibers: Fundamental properties and sensing applications. , 2012, , .		0
72	Brillouin frequency shift dependences on temperature and strain in PMMA-based polymer optical fibers estimated by acoustic velocity measurement. , 2012, , .		0

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73	Dependences of Brillouin frequency shift on strain and temperature in optical fibers doped with rare-earth ions. Proceedings of SPIE, 2012, , .	0.8	0
74	Observation and characterization of stimulated Brillouin gain spectra in plastic optical fibers. Proceedings of SPIE, 2013, , .	0.8	0
75	Enhancement of Brillouin signal in plastic optical fibers using pulsed pump with multimode-fiber-assisted coupling. , 2013, , .		0
76	Brillouin scattering properties in partially chlorinated plastic optical fibers estimated with ultrasonic pulse-echo technique. , 2013, , .		0
77	Distributed strain and temperature sensing based on Brillouin scattering in plastic optical fibers. , 2014, , .		0
78	First observation of fiber fuse phenomenon in polymer optical fibers. , 2014, , .		0
79	Evaluation of Brillouin frequency shift and its temperature dependence in poly(pentafluorostyrene)-based polymer optical fibers by ultrasonic pulse-echo technique. Proceedings of SPIE, 2014, , .	0.8	0
80	Plastic optical fiber tapering without using external heat source. , 2015, , .		0
81	Influence of polarization scrambling on Brillouin optical correlation-domain reflectometry using plastic fibers. Proceedings of SPIE, 2015, , .	0.8	0
82	Experimental study on thermal memory effect in plastic optical fibers. , 2015, , .		0
83	Simplified correlation-domain Brillouin sensor using plastic optical fiber. Proceedings of SPIE, 2015, , .	0.8	0
84	Modal-interference-based temperature sensing using plastic optical fibers: markedly enhanced sensitivity near glass-transition temperature. , 2015, , .		0
85	Brillouin Scattering in Plastic Optical Fibers and its Applications to High-Speed Distributed Sensing. , 2016, , .		0
86	Characterization of Brillouin scattering in plastic optical fibers for sensing applications. , 2016, , .		0
87	Locally pressed plastic optical fibers for refractive index sensing. Proceedings of SPIE, 2017, , .	0.8	0
88	Polymer optical fiber tapering using hot water. Applied Physics Express, 2017, 10, 062502.	1.1	0
89	Slope-assisted Brillouin optical correlation-domain reflectometry using high-loss plastic optical fibers. Proceedings of SPIE, 2017, , .	0.8	0
90	Plastic optical fiber fuse and its impact on sensing applications. Proceedings of SPIE, 2017, , .	0.8	0

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91	Pressure dependence of Brillouin frequency shift in plastic optical fibers. , 2017, , .		0
92	Experimental observation of depolarized GAWBS in partially uncoated optical fibre. , 2017, , .		0
93	Brillouin Light Scattering in Plastic Fibers. , 2014, , .		0
94	Ultra-Sensitive Strain and Temperature Sensing Based on Single-Mode-Multimode-Single-Mode Structure Comprising Perfluorinated Plastic Optical Fibers. , 2014, , .		0
95	Single-End-Access Strain and Temperature Sensing Based on Multimodal Interference in Plastic Optical Fibers. , 2016, , .		0