Heeyoung Lee

List of Publications by Year
in descending order

69 papers	643 citations	686830 13 h-index	676716 22 g-index
69 all docs	69 docs citations	69 times ranked	298 citing authors

#	Article	IF	Citations
1	Pressure Dependence of Fiber Bragg Grating Inscribed in Perfluorinated Polymer Fiber. IEEE Photonics Technology Letters, 2017, 29, 2167-2170.	1.3	53
2	Distributed polymer optical fiber sensors: a review and outlook. Photonics Research, 2021, 9, 1719.	3.4	47
3	Slope-Assisted Brillouin Optical Correlation-Domain Reflectometry: Proof of Concept. IEEE Photonics Journal, 2016, 8, 1-7.	1.0	37
4	Highly Sensitive Fiberâ€Optic Intrinsic Electromagnetic Field Sensing. Advanced Photonics Research, 2021, 2, 2000078.	1.7	34
5	Operation of slope-assisted Brillouin optical correlation-domain reflectometry: comparison of system output with actual frequency shift distribution. Optics Express, 2016, 24, 29190.	1.7	32
6	Slope-Assisted Brillouin Optical Correlation-Domain Reflectometry Using Polymer Optical Fibers With High Propagation Loss. Journal of Lightwave Technology, 2017, 35, 2306-2310.	2.7	32
7	Strain, temperature, moisture, and transverse force sensing using fused polymer optical fibers. Optics Express, 2018, 26, 12939.	1.7	26
8	Design and characterization of a curvature sensor using fused polymer optical fibers. Optics Letters, 2018, 43, 2539.	1.7	22
9	Multimodal Interference in Perfluorinated Polymer Optical Fibers: Application to Ultrasensitive Strain and Temperature Sensing. IEICE Transactions on Electronics, 2018, E101.C, 602-610.	0.3	19
10	Single-end-access strain and temperature sensing based on multimodal interference in polymer optical fibers. IEICE Electronics Express, 2017, 14, 20161239-20161239.	0.3	18
11	Proposal of external modulation scheme for fiber-optic correlation-domain distributed sensing. Applied Physics Express, 2019, 12, 022005.	1.1	16
12	Dynamic mechanical analysis on fused polymer optical fibers: towards sensor applications. Optics Letters, 2018, 43, 1754.	1.7	15
13	Detection of 2-mm-long strained section in silica fiber using slope-assisted Brillouin optical correlation-domain reflectometry. Japanese Journal of Applied Physics, 2018, 57, 020303.	0.8	14
14	First demonstration of Brillouin optical correlation-domain reflectometry based on external modulation scheme. Japanese Journal of Applied Physics, 2019, 58, 068004.	0.8	14
15	Recent Advances in Brillouin Optical Correlation-Domain Reflectometry. Applied Sciences (Switzerland), 2018, 8, 1845.	1.3	13
16	Strain dependence of perfluorinated polymer optical fiber Bragg grating measured at different wavelengths. Japanese Journal of Applied Physics, 2018, 57, 038002.	0.8	12
17	Potential of Discriminative Sensing of Strain and Temperature Using Perfluorinated Polymer FBG. IEEE Sensors Journal, 2019, 19, 4458-4462.	2.4	12
18	Wide-Dynamic-Range Brillouin Optical Correlation-Domain Reflectometry With 20-kHz Sampling Rate. IEEE Sensors Journal, 2022, 22, 6644-6650.	2.4	11

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19	Observation of Backward Guided-Acoustic-Wave Brillouin Scattering in Optical Fibers Using Pumpâ€“Probe Technique. IEEE Photonics Journal, 2016, 8, 1-7.	1.0	10
20	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
21	Measurement sensitivity dependencies on incident power and spatial resolution in slope-assisted Brillouin optical correlation-domain reflectometry. Sensors and Actuators A: Physical, 2017, 268, 68-71.	2.0	10
22	Simplified optical correlation-domain reflectometry employing proximal reflection point. Japanese Journal of Applied Physics, 2016, 55, 128003.	0.8	10
23	Pilot demonstration of correlation-domain LiDAR for high-speed vibration detection. APL Photonics, 2021, 6, .	3.0	10
24	Hydrostatic pressure dependence of Brillouin frequency shift in polymer optical fibers. Applied Physics Express, 2018, 11, 012502.	1.1	9
25	Measurement range enlargement in Brillouin optical correlation-domain reflectometry based on chirp modulation scheme. Applied Physics Express, 2020, 13, 082003.	1.1	9
26	Noise suppression technique for distributed Brillouin sensing with polymer optical fibers. Optics Letters, 2019, 44, 2097.	1.7	9
27	Distributed strain measurement and possible breakage detection of optical-fiber-embedded composite structure using slope-assisted Brillouin optical correlation-domain reflectometry. Applied Physics Express, 2018, 11, 072501.	1.1	8
28	Bending-loss-independent operation of slope-assisted Brillouin optical correlation-domain reflectometry. Scientific Reports, 2018, 8, 7844.	1.6	8
29	Trade-off relation between strain dynamic range and spatial resolution in slope-assisted Brillouin optical correlation-domain reflectometry. Measurement Science and Technology, 2019, 30, 075204.	1.4	8
30	Potential of Mechanically Induced Cascaded Long-Period Grating Structure for Reflectometric Pressure, Strain, and Temperature Sensing. IEEE Sensors Journal, 2020, 20, 10539-10546.	2.4	8
31	Spatial Resolution Enhancement of Brillouin Optical Correlation-Domain Reflectometry Using Convolutional Neural Network: Proof of Concept. IEEE Access, 2021, 9, 124701-124710.	2.6	8
32	Sensing Applications of Polymer Optical Fiber Fuse. Advanced Photonics Research, 2022, 3, 2100210.	1.7	8
33	Displacement sensing based on modal interference in polymer optical fibers with partially applied strain. Japanese Journal of Applied Physics, 2018, 57, 058002.	0.8	7
34	Twist dependencies of strain and temperature sensitivities of perfluorinated graded-index polymer optical fiber Bragg gratings. Applied Physics Express, 2019, 12, 082007.	1.1	7
35	Strain and temperature dependencies of multimodal interference spectra in hetero-core-fiber structures. Japanese Journal of Applied Physics, 2020, 59, 058002.	0.8	7
36	Recent progress in slope-assisted Brillouin optical correlation-domain reflectometry. Optical Fiber Technology, 2020, 59, 102312.	1.4	6

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37	Effect of laser temperature control on Brillouin optical correlation-domain reflectometry. Applied Physics Express, 2020, 13, 052001.	1.1	6
38	Brillouin characterization of slimmed polymer optical fibers for strain sensing with extremely wide dynamic range. Optics Express, 2018, 26, 28030.	1.7	6
39	Lorentzian demodulation algorithm for multimode polymer optical fiber Bragg gratings. Japanese Journal of Applied Physics, 2019, 58, 028003.	0.8	5
40	Brillouin optical correlation-domain reflectometry based on arbitrary waveform modulation: a theoretical study. Optics Express, 2021, 29, 13794.	1.7	5
41	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
42	Refractive index sensing using V-shaped polymer optical fibers. Japanese Journal of Applied Physics, 2015, 54, 118001.	0.8	4
43	Error compensation in Brillouin optical correlation-domain reflectometry by combining bidirectionally measured frequency shift distributions. Applied Physics Express, 2021, 14, 052006.	1.1	4
44	Characterization of modal interference in multi-core polymer optical fibers and its application to temperature sensing. Applied Physics Express, 2022, 15, 072002.	1.1	4
45	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
46	Observation of multimodal interference in millimeter-long polymer optical fibers. IEICE Electronics Express, 2019, 16, 20190135-20190135.	0.3	3
47	Enhanced stability and sensitivity of slope-assisted Brillouin optical correlation-domain reflectometry using polarization-maintaining fibers. OSA Continuum, 2019, 2, 874.	1.8	3
48	Pilot demonstration of refractive index sensing using polymer optical fiber crushed with slotted screwdriver. IEICE Electronics Express, 2017, 14, 20170962-20170962.	0.3	3
49	Super-simplified optical correlation-domain reflectometry. Japanese Journal of Applied Physics, 2022, 61, 078005.	0.8	3
50	Refractive index sensing using ultrasonically crushed polymer optical fibers. Applied Physics Express, 2017, 10, 012201.	1.1	2
51	Long-term stability enhancement of Brillouin measurement in polymer optical fibers using amorphous fluoropolymer. Japanese Journal of Applied Physics, 2018, 57, 018001.	0.8	2
52	Fiber-optic distributed measurement of polarization beat length using slope-assisted Brillouin optical correlation-domain reflectometry. Optical Review, 2020, 27, 542-547.	1.2	2
53	Infrared- Thermometer-Based Detection of Optical Fiber Breakage in Structure. , 2019, , .		1
54	Infrared thermometry for breakage detection of optical fibers embedded in structures. Applied Physics Express, 2019, 12, 062007.	1.1	1

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55	Magnetoresponsive Optical Fiber with Fuseâ€Effectâ€Induced Fluorinated Graphene Oxide Core. Advanced Photonics Research, 0, , 2100209.	1.7	1
56	Proposal of Polarization Optical Correlation-Domain Reflectometry (POCDR). Journal of Lightwave Technology, 2022, 40, 5708-5715.	2.7	1
57	Locally pressed plastic optical fibers for refractive index sensing. Proceedings of SPIE, 2017, , .	0.8	0
58	Polymer optical fiber tapering using hot water. Applied Physics Express, 2017, 10, 062502.	1.1	0
59	Slope-assisted Brillouin optical correlation-domain reflectometry using high-loss plastic optical fibers. Proceedings of SPIE, 2017, , .	0.8	0
60	Plastic optical fiber fuse and its impact on sensing applications. Proceedings of SPIE, 2017, , .	0.8	0
61	Operation of power-based BOCDR: Measurement sensitivity influenced by spatial resolution. , 2017, , .		0
62	Modal-Interference-Based Displacement Sensing Using Partially Strained Plastic Optical Fibers. , 2018, , .		0
63	Highly Sensitive Slope-Assisted BOCDR Utilizing Polarization-Maintaining Fiber. , 2018, , .		0
64	Distributed Strain Measurement Using Power-Based Brillouin Sensor with Three Folded Dynamic Range. Proceedings (mdpi), 2019, 15, .	0.2	0
65	Widest-Ever Dynamic Range of Brillouin Strain Sensing Using Slimmed Plastic Optical Fibers. , 2018, , .		0
66	Brillouin Optical Correlation-Domain Reflectometry: State-of-the-Art and Future Challenges. , 2019, , .		0
67	Non-Degraded Operation of BOCDR Using Thermally Uncontrolled DFB Laser. , 2021, , .		0
68	Spatial resolution of BOCDR based on frequency modulation by arbitrary-shaped waveforms. , 2021, , .		0
69	Fiber-optic temperature sensor based on inline core-cladding-mode Machâ€"Zehnder interferometry with dynamically controllable sensing length. Applied Physics Express, 2022, 15, 022002.	1.1	0