Jie Huang

List of Publications by Year
in descending order

113 papers	2,447 citations	201575 27 h-index	254106 43 g-index
113 all docs	113 docs citations	113 times ranked	1624 citing authors

#	Article	IF	Citations
1	High-temperature fiber-optic Fabryâ€"Perot interferometric pressure sensor fabricated by femtosecond laser. Optics Letters, 2013, 38, 4609.	1.7	147
2	An ensemble machine learning approach for prediction and optimization of modulus of elasticity of recycled aggregate concrete. Construction and Building Materials, 2020, 244, 118271.	3.2	122
3	Spatially continuous distributed fiber optic sensing using optical carrier based microwave interferometry. Optics Express, 2014, 22, 18757.	1.7	85
4	Polymer optical fiber for large strain measurement based on multimode interference. Optics Letters, 2012, 37, 4308.	1.7	75
5	Machine learning to predict properties of fresh and hardened alkali-activated concrete. Cement and Concrete Composites, 2021, 115, 103863.	4.6	75
6	All-in-fiber optofluidic sensor fabricated by femtosecond laser assisted chemical etching. Optics Letters, 2014, 39, 2358.	1.7	62
7	Microwave Interrogated Sapphire Fiber Michelson Interferometer for High Temperature Sensing. IEEE Photonics Technology Letters, 2015, 27, 1398-1401.	1.3	61
8	Coaxial cable Bragg grating. Applied Physics Letters, 2011, 99, .	1.5	55
9	Machine learning as a tool to design glasses with controlled dissolution for healthcare applications. Acta Biomaterialia, 2020, 107, 286-298.	4.1	55
10	A Miniaturized Optical Fiber Tip High-Temperature Sensor Based on Concave-Shaped Fabryâ€"Perot Cavity. IEEE Photonics Technology Letters, 2019, 31, 35-38.	1.3	54
11	Rayleigh backscattering based macrobending single mode fiber for distributed refractive index sensing. Sensors and Actuators B: Chemical, 2017, 248, 346-350.	4.0	53
12	A Coaxial Cable Fabry-Perot Interferometer for Sensing Applications. Sensors, 2013, 13, 15252-15260.	2.1	52
13	Gas sensing materials roadmap. Journal of Physics Condensed Matter, 2021, 33, 303001.	0.7	49
14	Probing Nanostrain via a Mechanically Designed Optical Fiber Interferometer. IEEE Photonics Technology Letters, 2017, 29, 1348-1351.	1.3	45
15	Optical fiber sensor based on a radio frequency Machâ€"Zehnder interferometer. Optics Letters, 2012, 37, 647.	1.7	44
16	Microwave interrogated large core fused silica fiber Michelson interferometer for strain sensing. Applied Optics, 2015, 54, 7181.	2.1	42
17	Probing changes in tilt angle with 20 nanoradian resolution using an extrinsic Fabry-Perot interferometer-based optical fiber inclinometer. Optics Express, 2018, 26, 2546.	1.7	42
18	Chemical Detection Using a Metalâ€"Organic Framework Single Crystal Coupled to an Optical Fiber. ACS Applied Materials & Interfaces, 2019, 11, 4393-4398.	4.0	42

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19	Long-Period Grating Inscribed on Concatenated Double-Clad and Single-Clad Fiber for Simultaneous Measurement of Temperature and Refractive Index. IEEE Photonics Technology Letters, 2012, 24, 1130-1132.	1.3	39
20	Turn-Around-Point Long-Period Fiber Gratings Fabricated by CO$_{2}$ Laser Point-by-Point Irradiations. IEEE Photonics Technology Letters, 2011, 23, 1664-1666.	1.3	36
21	Progress Toward Sapphire Optical Fiber Sensors for High-Temperature Applications. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 8639-8655.	2.4	36
22	Microwave assisted reconstruction of optical interferograms for distributed fiber optic sensing. Optics Express, 2013, 21, 18152.	1.7	34
23	Optical Interferometric Pressure Sensor Based on a Buckled Beam With Low-Temperature Cross-Sensitivity. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 950-955.	2.4	34
24	Coaxial cable Bragg grating sensors for large strain measurement with high accuracy. Proceedings of SPIE, 2012, , .	0.8	33
25	Metal-organic framework portable chemical sensor. Sensors and Actuators B: Chemical, 2020, 321, 128608.	4.0	33
26	Sensitivity-enhanced microwave-photonic optical fiber interferometry based on the Vernier effect. Optics Express, 2021, 29, 16820.	1.7	33
27	A Displacement Sensor with Centimeter Dynamic Range and Submicrometer Resolution Based on an Optical Interferometer.. IEEE Sensors Journal, 2017, , 1-1.	2.4	30
28	CAMKs support development of acute myeloid leukemia. Journal of Hematology and Oncology, 2018, 11, 30.	6.9	26
29	Machine learning for high-fidelity prediction of cement hydration kinetics in blended systems. Materials and Design, 2021, 208, 109920.	3.3	26
30	Integrated chemical vapor sensor based on thin wall capillary coupled porous glass microsphere optical resonator. Sensors and Actuators B: Chemical, 2015, 216, 332-336.	4.0	25
31	Interferogram Reconstruction of Cascaded Coaxial Cable Fabry-Perot Interferometers for Distributed Sensing Application. IEEE Sensors Journal, 2016, 16, 4495-4500.	2.4	25
32	Comparison of Silica and Sapphire Fiber SERS Probes Fabricated by a Femtosecond Laser. IEEE Photonics Technology Letters, 2014, 26, 1299-1302.	1.3	24
33	Unclonable Optical Fiber Identification Based on Rayleigh Backscattering Signatures. Journal of Lightwave Technology, 2017, 35, 4634-4640.	2.7	24
34	An Optical Interferometric Triaxial Displacement Sensor for Structural Health Monitoring: Characterization of Sliding and Debonding for a Delamination Process. Sensors, 2017, 17, 2696.	2.1	24
35	A Liquid-Level Sensor Based on a Hollow Coaxial Cable Fabryâ€“Perot Resonator With Micrometer Resolution. IEEE Transactions on Instrumentation and Measurement, 2018, 67, 2892-2897.	2.4	24
36	A Spatially Distributed Fiber-Optic Temperature Sensor for Applications in the Steel Industry. Sensors, 2020, 20, 3900.	2.1	24

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37	Reflection based extraordinary optical transmission fiber optic probe for refractive index sensing. Sensors and Actuators B: Chemical, 2014, 193, 95-99.	4.0	23
38	A Dual-Parameter Internally Calibrated Fabry-Perot Microcavity Sensor. IEEE Sensors Journal, 2020, 20, 2511-2517.	2.4	23
39	A High-Resolution 2-D Fiber Optic Inclinometer for Structural Health Monitoring Applications. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 6544-6555.	2.4	23
40	Machine learning enables prompt prediction of hydration kinetics of multicomponent cementitious systems. Scientific Reports, 2021, 11, 3922.	1.6	23
41	Metal-Organic Framework Materials Coupled to Optical Fibers for Chemical Sensing: A Review. IEEE Sensors Journal, 2021, 21, 19647-19661.	2.4	23
42	Fiber optic sensors enabled monitoring of thermal curling of concrete pavement slab: Temperature, strain and inclination. Measurement: Journal of the International Measurement Confederation, 2020, 165, 108203.	2.5	22
43	Microwave-photonic optical fiber interferometers for refractive index sensing with high sensitivity and a tunable dynamic range. Optics Letters, 2021, 46, 2180.	1.7	22
44	Ultra-Sensitive Microwave-Photonic Optical Fiber Interferometry Based on Phase-Shift Amplification. IEEE Journal of Selected Topics in Quantum Electronics, 2021, 27, 1-8.	1.9	22
45	Soft Prosthetic Forefinger Tactile Sensing via a String of Intact Single Mode Optical Fiber. IEEE Sensors Journal, 2017, 17, 7455-7459.	2.4	21
46	A Centimeter-Range Displacement Sensor Based on a Hollow Coaxial Cable Fabryâ€“Perot Resonator. IEEE Sensors Journal, 2018, 18, 4436-4442.	2.4	21
47	Laser-scribed conductive, photoactive transition metal oxide on soft elastomers for Janus on-skin electronics and soft actuators. Science Advances, 2022, 8, .	4.7	20
48	A hollow coaxial cable Fabryâ€“PÃ©rot resonator for liquid dielectric constant measurement. Review of Scientific Instruments, 2018, 89, 045003.	0.6	19
49	A Novel Differential Capacitive Humidity Sensor on SIW Re-Entrant Cavity Microwave Resonators With PEDOT:PSS Film. IEEE Sensors Journal, 2022, 22, 6576-6585.	2.4	19
50	High Quality Factor Coaxial Cable Fabry-Perot Resonator for Sensing Applications. IEEE Sensors Journal, 2017, 17, 3052-3057.	2.4	18
51	Displacement and Strain Measurement up to 1000 Â°C Using a Hollow Coaxial Cable Fabry-Perot Resonator. Sensors, 2018, 18, 1304.	2.1	18
52	Fiber optic sensor embedded smart helmet for real-time impact sensing and analysis through machine learning. Journal of Neuroscience Methods, 2021, 351, 109073.	1.3	18
53	High-Temperature and High-Sensitivity Pressure Sensors Based on Microwave Resonators. IEEE Sensors Journal, 2021, 21, 18781-18792.	2.4	16
54	Coaxial cable Bragg grating assisted microwave coupler. Review of Scientific Instruments, 2014, 85, 014703.	0.6	15

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55	An embeddable optical strain gauge based on a buckled beam. Review of Scientific Instruments, 2017, 88, 115002.	0.6	15
56	A Compact Double-Folded Substrate Integrated Waveguide Re-Entrant Cavity for Highly Sensitive Humidity Sensing. Sensors, 2019, 19, 3308.	2.1	15
57	Contactless liquid interface measurement based on a hollow coaxial cable resonator. Sensors and Actuators A: Physical, 2019, 285, 623-627.	2.0	15
58	Microcavity strain sensor for high temperature applications. Optical Engineering, 2014, 53, 017105.	0.5	14
59	Probing the Theoretical Ultimate Limit of Coaxial Cable Sensing: Measuring Nanometer-Scale Displacements. IEEE Transactions on Microwave Theory and Techniques, 2020, 68, 816-823.	2.9	14
60	Probing Changes in Pressure With Subpascal Resolution Using an Optical Fiber Fabryâ€"Perot Interferometer. IEEE Transactions on Instrumentation and Measurement, 2020, 69, 6556-6563.	2.4	13
61	Distributed fiber optic sensing with enhanced sensitivity based on microwave-photonic Vernier effect. Optics Letters, 2022, 47, 2810.	1.7	13
62	Machine Learning Assisted High-Sensitivity and Large-Dynamic-Range Curvature Sensor Based on No-Core Fiber and Hollow-Core Fiber. Journal of Lightwave Technology, 2022, 40, 5762-5767.	2.7	13
63	Modeling of Coaxial Cable Bragg Grating by Coupled Mode Theory. IEEE Transactions on Microwave Theory and Techniques, 2014, 62, 2251-2259.	2.9	11
64	Highly sensitive open-ended coaxial cable-based microwave resonator for humidity sensing. Sensors and Actuators A: Physical, 2020, 314, 112244.	2.0	11
65	Machine Learning Enabled Models to Predict Sulfur Solubility in Nuclear Waste Glasses. ACS Applied Materials & Interfaces, 2021, 13, 53375-53387.	4.0	11
66	Predicting compressive strength of alkali-activated systems based on the network topology and phase assemblages using tree-structure computing algorithms. Construction and Building Materials, 2022, 336, 127557.	3.2	11
67	Measuring the heterogeneity of cement paste by truly distributed optical fiber sensors. Construction and Building Materials, 2019, 225, 765-771.	3.2	10
68	Distributed Fiber-Optic Sensing With Low Bending Loss Based on Thin-Core Fiber. IEEE Sensors Journal, 2021, 21, 7672-7680.	2.4	10
69	Spatially continuous strain monitoring using distributed fiber optic sensors embedded in carbon fiber composites. Optical Engineering, 2019, 58, 1.	0.5	10
70	One-dimensional sensor learns to sense three-dimensional space. Optics Express, 2020, 28, 19374.	1.7	10
71	A Deep Learning Approach to Design and Discover Sustainable Cementitious Binders: Strategies to Learn From Small Databases and Develop Closed-form Analytical Models. Frontiers in Materials, 2022, 8, .	1.2	10
72	2-D Tilt Sensor Based on Coaxial Cable Fabryâ€"Perot Resonators With Submicroradian Resolution. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 2398-2406.	2.9	10

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73	Control of critical coupling in a coiled coaxial cable resonator. Review of Scientific Instruments, 2014, 85, 054701.	0.6	9
74	Microwave Device Inspired by Fiber-Optic Extrinsic Fabry-Perot Interferometer: A Novel Ultra-Sensitive Sensing Platform. Journal of Lightwave Technology, 2020, 38, 6961-6966.	2.7	9
75	Truly Distributed Coaxial Cable Sensing Based on Random Inhomogeneities. IEEE Transactions on Instrumentation and Measurement, 2019, 68, 4600-4607.	2.4	8
76	High-temperature stable FBGs fabricated by a point-by-point femtosecond laser inscription for multi-parameter sensing. OSA Continuum, 2021, 4, 355.	1.8	8
77	Machine learning identifies liquids employing a simple fiber-optic tip sensor. Optics Express, 2021, 29, 40000.	1.7	8
78	Machine learning enabled closedâ€form models to predict strength of alkaliâ€activated systems. Journal of the American Ceramic Society, 2022, 105, 4414-4425.	1.9	8
79	Monitoring Passive Film Growth on Steel Using Fe-C Coated Long Period Grating Fiber Sensor. IEEE Sensors Journal, 2019, 19, 6748-6755.	2.4	7
80	Ultrasensitive Open-Ended Coaxial Cable-Based Microwave Resonator Learns to Sense Impacts. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-9.	2.4	7
81	Mitigation of thermal curling of concrete slab using phase change material: A feasibility study. Cement and Concrete Composites, 2021, 120, 104021.	4.6	7
82	Shell Measurements and Mold Thermal Mapping Approach to Characterize Steel Shell Formation in Peritectic Grade Steels. Steel Research International, 2022, 93, 2100455.	1.0	7
83	Sensitivity-Enhanced Fiber-Optic Sensor in a Microwave Photonics Fiber Loop Ringdown System. Journal of Lightwave Technology, 2022, 40, 5768-5774.	2.7	7
84	Machine learning boosts performance of optical fiber sensors: a case study for vector bending sensing. Optics Express, 2022, 30, 24553.	1.7	7
85	Predicting mechanical properties of ultrahigh temperature ceramics using machine learning. Journal of the American Ceramic Society, 2022, 105, 6851-6863.	1.9	7
86	A Microwave Photonics Fiber Loop Ring-Down System. IEEE Sensors Journal, 2017, 17, 6565-6570.	2.4	6
87	A Uniform Strain Transfer Scheme for Accurate Distributed Optical Fiber Strain Measurements in Civil Structures. Inventions, 2018, 3, 30.	1.3	6
88	Transmission Line Identification via Impedance Inhomogeneity Pattern. IEEE Journal of Radio Frequency Identification, 2019, 3, 245-251.	1.5	6
89	Thermal Mapping of Metal Casting Mold Using High-Resolution Distributed Fiber-Optic Sensors. IEEE Transactions on Instrumentation and Measurement, 2021, 70, 1-10.	2.4	6
90	An Embeddable Strain Sensor with 30 Nano-Strain Resolution Based on Optical Interferometry. Inventions, 2018, 3, 20.	1.3	5

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91	Optical fiber Fabryâ€“Perot interferometer coupled to a 3-D integrated waveguide for 3-D position sensing. Optics Letters, 2021, 46, 5838.	1.7	5
92	Temperature-Insensitive Inclinometer Based on Transmission Line Fabryâ€“Perot Resonators. IEEE Transactions on Instrumentation and Measurement, 2022, 71, 1-10.	2.4	5
93	On the Sensitivity of Microwave Fabryâ€“Perot Interferometers for Displacement Detection. IEEE Transactions on Microwave Theory and Techniques, 2022, 70, 3943-3953.	2.9	5
94	Radio frequency interrogated actively mode-locked fiber ring laser for sensing application. Optics Letters, 2012, 37, 494.	1.7	4
95	NMR studies of materials loaded into porous-wall hollow glass microspheres. Materials Science and Engineering C, 2020, 116, 111177.	3.8	4
96	Off-axis microsphere photolithography patterned nanohole array and other structures on an optical fiber tip for glucose sensing. RSC Advances, 2021, 11, 25912-25920.	1.7	4
97	Functional Plasmonic Fiber-Optic Based Sensors Using Low-Cost Microsphere Photolithography. , 2019, , .		3
98	Microsphere Photolithography Patterned Nanohole Array on an Optical Fiber. IEEE Access, 2021, 9, 32627-32633.	2.6	3
99	Smart Fiber-optic Inclinometer. , 2020, , .		3
100	Capillary-tube package devices for the quantitative performance evaluation of nuclear magnetic resonance spectrometers and pulse sequences. Review of Scientific Instruments, 2018, 89, 123115.	0.6	2
101	Microsphere Photolithography Patterning of Plasmonic Sensors on Optical Fiber. , 2019, , .		1
102	Strain monitoring using distributed fiber optic sensors embedded in carbon fiber composites. , 2018, , .		1
103	An optical fiber extrinsic Fabry-Perot interferometer based displacement sensor with centimeter measurement range. , 2018, , .		1
104	Buckled beam based optical interferometric pressure sensor with low temperature cross-sensitivity. , 2018, , .		1
105	Truly distributed coaxial cable sensing based on random inhomogeneities. , 2019, , .		1
106	Displacement and strain measurement up to 1000 Â°C using a hollow coaxial cable Fabry-Perot resonator. , 2019, , .		1
107	Low-cost fabrication of functional plasmonic fiber-optic-based sensors using microsphere photolithography. , 2019, , .		1
108	Micromachined Optical Fiber Sensors for Biomedical Applications. Methods in Molecular Biology, 2022, 2393, 367-414.	0.4	1

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109	Optical Interferometric Force Sensor Based on a Buckled Beam. IEEE Sensors Journal, 2022, 22, 1301-1308.	2.4	1
110	Wide-range displacement sensor based on a hollow coaxial cable Fabry-Perot resonator. , 2018, , .		0
111	A three-dimensional sliding and debonding sensor based on triaxial optical fiber Fabry-Perot interferometers. , 2018, , .		0
112	Optical fiber Fabry-Perot interferometer based embeddable strain sensor with 30 nano-strain resolution. , 2019, , .		0
113	Ultra-high Sensitivity 1D Sensor for Sensing 3D Space. , 2021, , .		0