Jie Huang

List of Publications by Year in Descending Order

99 papers	1,366 citations	20 h-index	31 g-index
113 ext. papers	1,876 ext. citations	4.2 avg, IF	5.18 L-index

#	Paper	IF	Citations
99	2-D Tilt Sensor Based on Coaxial Cable Fabry-Perot Resonators With Submicroradian Resolution. *IEEE Transactions on Microwave Theory and Techniques*, **2022**, 1-1	4.1	2
98	Micromachined Optical Fiber Sensors for Biomedical Applications. *Methods in Molecular Biology*, **2022**, 2393, 367-414	1.4	0
97	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,	4	1
96	A Novel Differential Capacitive Humidity Sensor on SIW Re-Entrant Cavity Microwave Resonators With PEDOT:PSS Film. *IEEE Sensors Journal*, **2022**, 22, 6576-6585	4	4
95	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	6.7	0
94	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**, 1-1	4	
93	Sensitivity-Enhanced Fiber-Optic Sensor in a Microwave Photonics Fiber Loop Ringdown System. *Journal of Lightwave Technology*, **2022**, 1-1	4	2
92	Machine learning identifies liquids employing a simple fiber-optic tip sensor. *Optics Express*, **2021**, 29, 40000-40014	3.3	3
91	Optical fiber Fabry-Perot interferometer coupled to a 3-D integrated waveguide for 3-D position sensing. *Optics Letters*, **2021**, 46, 5838-5841	3	2
90	Optical Interferometric Force Sensor Based on a Buckled Beam. *IEEE Sensors Journal*, **2021**, 1-1	4	1
89	Thermal Mapping of Metal Casting Mold Using High-Resolution Distributed Fiber-Optic Sensors. *IEEE Transactions on Instrumentation and Measurement*, **2021**, 70, 1-10	5.2	1
88	Distributed Fiber-Optic Sensing With Low Bending Loss Based on Thin-Core Fiber. *IEEE Sensors Journal*, **2021**, 21, 7672-7680	4	4
87	Fiber optic sensor embedded smart helmet for real-time impact sensing and analysis through machine learning. *Journal of Neuroscience Methods*, **2021**, 351, 109073	3	7
86	Microwave-photonic optical fiber interferometers for refractive index sensing with high sensitivity and a tunable dynamic range. *Optics Letters*, **2021**, 46, 2180-2183	3	7
85	Sensitivity-enhanced microwave-photonic optical fiber interferometry based on the Vernier effect. *Optics Express*, **2021**, 29, 16820-16832	3.3	12
84	Gas sensing materials roadmap. *Journal of Physics Condensed Matter*, **2021**, 33,	1.8	15
83	Mitigation of thermal curling of concrete slab using phase change material: A feasibility study. *Cement and Concrete Composites*, **2021**, 120, 104021	8.6	2

82	Machine learning to predict properties of fresh and hardened alkali-activated concrete. *Cement and Concrete Composites*, **2021**, 115, 103863	8.6	16
81	Ultrasensitive Open-Ended Coaxial Cable-Based Microwave Resonator Learns to Sense Impacts. *IEEE Transactions on Instrumentation and Measurement*, **2021**, 70, 1-9	5.2	1
80	High-temperature stable FBGs fabricated by a point-by-point femtosecond laser inscription for multi-parameter sensing. *OSA Continuum*, **2021**, 4, 355	1.4	4
79	Off-axis microsphere photolithography patterned nanohole array and other structures on an optical fiber tip for glucose sensing.. *RSC Advances*, **2021**, 11, 25912-25920	3.7	1
78	. *IEEE Access*, **2021**, 9, 32627-32633	3.5	2
77	Machine learning enables prompt prediction of hydration kinetics of multicomponent cementitious systems. *Scientific Reports*, **2021**, 11, 3922	4.9	6
76	. *IEEE Sensors Journal*, **2021**, 21, 19647-19661	4	5
75	Machine Learning Enabled Models to Predict Sulfur Solubility in Nuclear Waste Glasses. *ACS Applied Materials & Interfaces*, **2021**, 13, 53375-53387	9.5	1
74	High-Temperature and High-Sensitivity Pressure Sensors Based on Microwave Resonators. *IEEE Sensors Journal*, **2021**, 21, 18781-18792	4	5
73	Machine learning for high-fidelity prediction of cement hydration kinetics in blended systems. *Materials and Design*, **2021**, 208, 109920	8.1	5
72	Ultra-Sensitive Microwave-Photonic Optical Fiber Interferometry Based on Phase-Shift Amplification. *IEEE Journal of Selected Topics in Quantum Electronics*, **2021**, 27, 1-8	3.8	10
71	NMR studies of materials loaded into porous-wall hollow glass microspheres. *Materials Science and Engineering C*, **2020**, 116, 111177	8.3	1
70	Probing Changes in Pressure With Subpascal Resolution Using an Optical Fiber Fabry–Perot Interferometer. *IEEE Transactions on Instrumentation and Measurement*, **2020**, 69, 6556-6563	5.2	10
69	Machine learning as a tool to design glasses with controlled dissolution for healthcare applications. *Acta Biomaterialia*, **2020**, 107, 286-298	10.8	20
68	An ensemble machine learning approach for prediction and optimization of modulus of elasticity of recycled aggregate concrete. *Construction and Building Materials*, **2020**, 244, 118271	6.7	45
67	A High-Resolution 2-D Fiber Optic Inclinometer for Structural Health Monitoring Applications. *IEEE Transactions on Instrumentation and Measurement*, **2020**, 69, 6544-6555	5.2	9
66	One-dimensional sensor learns to sense three-dimensional space. *Optics Express*, **2020**, 28, 19374-19389	3.3	5
65	Smart Fiber-optic Inclinometer **2020**,		2

64	Probing the Theoretical Ultimate Limit of Coaxial Cable Sensing: Measuring Nanometer-Scale Displacements. *IEEE Transactions on Microwave Theory and Techniques*, **2020**, 68, 816-823	4.1	8
63	A Dual-Parameter Internally Calibrated Fabry-Perot Microcavity Sensor. *IEEE Sensors Journal*, **2020**, 20, 2511-2517	4	11
62	Metal-organic framework portable chemical sensor. *Sensors and Actuators B: Chemical*, **2020**, 321, 128608	8.5	16
61	A Spatially Distributed Fiber-Optic Temperature Sensor for Applications in the Steel Industry. *Sensors*, **2020**, 20,	3.8	12
60	Highly sensitive open-ended coaxial cable-based microwave resonator for humidity sensing. *Sensors and Actuators A: Physical*, **2020**, 314, 112244	3.9	6
59	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	4.6	9
58	Progress Toward Sapphire Optical Fiber Sensors for High-Temperature Applications. *IEEE Transactions on Instrumentation and Measurement*, **2020**, 69, 8639-8655	5.2	14
57	Microwave device inspired by fiber-optic extrinsic Fabry-Perot interferometer: a novel ultra-sensitive sensing platform.. *Journal of Lightwave Technology*, **2020**, 38, 6961-6966	4	5
56	Microsphere Photolithography Patterning of Plasmonic Sensors on Optical Fiber **2019**,		1
55	Transmission Line Identification via Impedance Inhomogeneity Pattern. *IEEE Journal of Radio Frequency Identification*, **2019**, 3, 245-251	2.4	3
54	Measuring the heterogeneity of cement paste by truly distributed optical fiber sensors. *Construction and Building Materials*, **2019**, 225, 765-771	6.7	6
53	Truly Distributed Coaxial Cable Sensing Based on Random Inhomogeneities. *IEEE Transactions on Instrumentation and Measurement*, **2019**, 68, 4600-4607	5.2	5
52	Monitoring Passive Film Growth on Steel Using Fe-C Coated Long Period Grating Fiber Sensor. *IEEE Sensors Journal*, **2019**, 19, 6748-6755	4	6
51	A Compact Double-Folded Substrate Integrated Waveguide Re-Entrant Cavity for Highly Sensitive Humidity Sensing. *Sensors*, **2019**, 19,	3.8	8
50	Spatially continuous strain monitoring using distributed fiber optic sensors embedded in carbon fiber composites. *Optical Engineering*, **2019**, 58, 1	1.1	8
49	Truly distributed coaxial cable sensing based on random inhomogeneities **2019**,		1
48	Low-cost fabrication of functional plasmonic fiber-optic-based sensors using microsphere photolithography **2019**,		1
47	Functional Plasmonic Fiber-Optic Based Sensors Using Low-Cost Microsphere Photolithography **2019**,		2

46	Chemical Detection Using a Metal-Organic Framework Single Crystal Coupled to an Optical Fiber. *ACS Applied Materials & Interfaces*, **2019**, 11, 4393-4398	9.5	27
45	A Miniaturized Optical Fiber Tip High-Temperature Sensor Based on Concave-Shaped Fabry□Perot Cavity. *IEEE Photonics Technology Letters*, **2019**, 31, 35-38	2.2	26
44	Contactless liquid interface measurement based on a hollow coaxial cable resonator. *Sensors and Actuators A: Physical*, **2019**, 285, 623-627	3.9	9
43	Optical Interferometric Pressure Sensor Based on a Buckled Beam With Low-Temperature Cross-Sensitivity. *IEEE Transactions on Instrumentation and Measurement*, **2018**, 67, 950-955	5.2	23
42	A hollow coaxial cable Fabry-P□ot resonator for liquid dielectric constant measurement. *Review of Scientific Instruments*, **2018**, 89, 045003	1.7	15
41	A Centimeter-Range Displacement Sensor Based on a Hollow Coaxial Cable Fabry□Perot Resonator. *IEEE Sensors Journal*, **2018**, 18, 4436-4442	4	10
40	Probing changes in tilt angle with 20 nanoradian resolution using an extrinsic Fabry-Perot interferometer-based optical fiber inclinometer. *Optics Express*, **2018**, 26, 2546-2556	3.3	21
39	An Embeddable Strain Sensor with 30 Nano-Strain Resolution Based on Optical Interferometry. *Inventions*, **2018**, 3, 20	2.9	3
38	Displacement and Strain Measurement up to 1000 °C Using a Hollow Coaxial Cable Fabry-Perot Resonator. *Sensors*, **2018**, 18,	3.8	12
37	CAMKs support development of acute myeloid leukemia. *Journal of Hematology and Oncology*, **2018**, 11, 30	22.4	13
36	Strain monitoring using distributed fiber optic sensors embedded in carbon fiber composites **2018**,		1
35	A Uniform Strain Transfer Scheme for Accurate Distributed Optical Fiber Strain Measurements in Civil Structures. *Inventions*, **2018**, 3, 30	2.9	6
34	Capillary-tube package devices for the quantitative performance evaluation of nuclear magnetic resonance spectrometers and pulse sequences. *Review of Scientific Instruments*, **2018**, 89, 123115	1.7	1
33	A Liquid-Level Sensor Based on a Hollow Coaxial Cable Fabry□Perot Resonator With Micrometer Resolution. *IEEE Transactions on Instrumentation and Measurement*, **2018**, 67, 2892-2897	5.2	13
32	Rayleigh backscattering based macrobending single mode fiber for distributed refractive index sensing. *Sensors and Actuators B: Chemical*, **2017**, 248, 346-350	8.5	36
31	High Quality Factor Coaxial Cable Fabry-Perot Resonator for Sensing Applications. *IEEE Sensors Journal*, **2017**, 17, 3052-3057	4	8
30	A Microwave Photonics Fiber Loop Ring-Down System. *IEEE Sensors Journal*, **2017**, 17, 6565-6570	4	3
29	A Displacement Sensor With Centimeter Dynamic Range and Submicrometer Resolution Based on an Optical Interferometer. *IEEE Sensors Journal*, **2017**, 1-1	4	20

28	An embeddable optical strain gauge based on a buckled beam. *Review of Scientific Instruments*, **2017**, 88, 115002	1.7	8
27	Probing Nanostrain via a Mechanically Designed Optical Fiber Interferometer. *IEEE Photonics Technology Letters*, **2017**, 29, 1348-1351	2.2	34
26	Unclonable Optical Fiber Identification Based on Rayleigh Backscattering Signatures. *Journal of Lightwave Technology*, **2017**, 35, 4634-4640	4	11
25	Soft Prosthetic Forefinger Tactile Sensing via a String of Intact Single Mode Optical Fiber. *IEEE Sensors Journal*, **2017**, 17, 7455-7459	4	13
24	An Optical Interferometric Triaxial Displacement Sensor for Structural Health Monitoring: Characterization of Sliding and Debonding for a Delamination Process. *Sensors*, **2017**, 17,	3.8	16
23	Interferogram Reconstruction of Cascaded Coaxial Cable Fabry-Perot Interferometers for Distributed Sensing Application. *IEEE Sensors Journal*, **2016**, 16, 4495-4500	4	19
22	Integrated Chemical Vapor Sensor Based on Thin Wall Capillary Coupled Porous Glass Microsphere Optical Resonator. *Sensors and Actuators B: Chemical*, **2015**, 216, 332-336	8.5	16
21	Microwave Interrogated Sapphire Fiber Michelson Interferometer for High Temperature Sensing. *IEEE Photonics Technology Letters*, **2015**, 27, 1398-1401	2.2	44
20	Microwave interrogated large core fused silica fiber Michelson interferometer for strain sensing. *Applied Optics*, **2015**, 54, 7181-7	0.2	26
19	Reflection based Extraordinary Optical Transmission Fiber Optic Probe for Refractive Index Sensing. *Sensors and Actuators B: Chemical*, **2014**, 193, 95-99	8.5	20
18	Comparison of Silica and Sapphire Fiber SERS Probes Fabricated by a Femtosecond Laser. *IEEE Photonics Technology Letters*, **2014**, 26, 1299-1302	2.2	19
17	Modeling of Coaxial Cable Bragg Grating by Coupled Mode Theory. *IEEE Transactions on Microwave Theory and Techniques*, **2014**, 62, 2251-2259	4.1	7
16	Coaxial cable Bragg grating assisted microwave coupler. *Review of Scientific Instruments*, **2014**, 85, 014703	1.7	11
15	Spatially continuous distributed fiber optic sensing using optical carrier based microwave interferometry. *Optics Express*, **2014**, 22, 18757-69	3.3	63
14	Microcavity strain sensor for high temperature applications. *Optical Engineering*, **2014**, 53, 017105	1.1	10
13	Control of critical coupling in a coiled coaxial cable resonator. *Review of Scientific Instruments*, **2014**, 85, 054701	1.7	8
12	All-in-fiber optofluidic sensor fabricated by femtosecond laser assisted chemical etching. *Optics Letters*, **2014**, 39, 2358-61	3	47
11	High-temperature fiber-optic Fabry-Perot interferometric pressure sensor fabricated by femtosecond laser. *Optics Letters*, **2013**, 38, 4609-12	3	113

10	Microwave assisted reconstruction of optical interferograms for distributed fiber optic sensing. *Optics Express*, **2013**, 21, 18152-9	3.3	30
9	A coaxial cable Fabry-Perot interferometer for sensing applications. *Sensors*, **2013**, 13, 15252-60	3.8	37
8	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	2.2	33
7	Coaxial cable Bragg grating sensors for large strain measurement with high accuracy **2012**,		27
6	Polymer optical fiber for large strain measurement based on multimode interference. *Optics Letters*, **2012**, 37, 4308-10	3	61
5	Optical fiber sensor based on a radio frequency Mach-Zehnder interferometer. *Optics Letters*, **2012**, 37, 647-9	3	30
4	Radio frequency interrogated actively mode-locked fiber ring laser for sensing application. *Optics Letters*, **2012**, 37, 494-6	3	4
3	Coaxial cable Bragg grating. *Applied Physics Letters*, **2011**, 99, 113517	3.4	42
2	Turn-Around-Point Long-Period Fiber Gratings Fabricated by CO$_{2}$ Laser Point-by-Point Irradiations. *IEEE Photonics Technology Letters*, **2011**, 23, 1664-1666	2.2	26
1	Shell Measurements and Mold Thermal Mapping Approach to Characterize Steel Shell Formation in Peritectic Grade Steels. *Steel Research International*,2100455	1.6	2