Yoji Okabe

List of Publications by Year
in descending order

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		186265	223800
103	2,374	28	46
papers	citations	h-index	g-index

103	103	103	1544
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Dual-frequency acousto-ultrasonic sensing of impact damage in composites for mitigating signal instability. Structural Health Monitoring, 2022, 21, 282-297.	7.5	4
2	Detection of a single transverse crack in a CFRP cross-ply laminate by visualizing mode conversion of Lamb waves. Composite Structures, 2022, 283, 115118.	5.8	5
3	Impact Damage Detection Using Chirp Ultrasonic Guided Waves for Development of Health Monitoring System for CFRP Mobility Structures. Sensors, 2022, 22, 789.	3.8	5
4	2D slowness visualization of ultrasonic wave propagation for delamination detection in CFRP laminates. NDT and E International, 2022, 131, 102696.	3.7	1
5	Laser ultrasonic visualization technique using a fiber-optic Bragg grating ultrasonic sensor with an improved adhesion configuration. Structural Health Monitoring, 2021, 20, 303-320.	7.5	15
6	An ultrasonic visualization system using a fiber-optic Bragg grating sensor and its application to damage detection at a temperature of 1000ÂÂ°C. Mechanical Systems and Signal Processing, 2021, 147, 107140.	8.0	26
7	Evaluation of the matrix crack number in carbon fiber reinforced plastics using linear and nonlinear acousto-ultrasonic detections. Composite Structures, 2021, 255, 112962.	5.8	12
8	Physical Sensors: Acoustic Sensors. , 2021, , .		0
9	Dispersion relation of Lamb waves in cross-ply composite laminates using multi-layered models. Composite Structures, 2021, 264, 113691.	5.8	10
10	Numerical analysis of Lamb waves propagating through impact damage in a skin-stringer structure composed of interlaminar-toughened CFRP. Composite Structures, 2021, 277, 114639.	5.8	4
11	Influence of honeycomb dimensions and forming methods on the compressive properties of beetle elytron plates. Journal of Sandwich Structures and Materials, 2020, 22, 28-39.	3.5	22
12	The compressive properties and strengthening mechanism of the middle-trabecular beetle elytron plate. Journal of Sandwich Structures and Materials, 2020, 22, 948-961.	3.5	21
13	Flight Testing of an Ultrasonic Based SHM System. Lecture Notes in Mechanical Engineering, 2020, , 1010-1021.	0.4	0
14	Simplified modeling method of impact damage for numerical simulation of Lamb wave propagation in quasi-isotropic composite structures. Composite Structures, 2020, 243, 112150.	5.8	17
15	Linear damage localization in CFRP laminates using one single fiber-optic Bragg grating acoustic emission sensor. Composite Structures, 2020, 238, 111992.	5.8	22
16	Nonlinear ultrasonic detection for evaluating fatigue crack in metal plate. Structural Health Monitoring, 2019, 18, 869-881.	7.5	52
17	Application of an Optical Fiber Sensor for Nonlinear Ultrasonic Evaluation of Fatigue Crack. IEEE Sensors Journal, 2019, 19, 4992-4999.	4.7	28
18	Regenerated Fiber Bragg Grating Sensing System for Ultrasonic Detection in a 900â€‰Â°C Environment. Journal of Nondestructive Evaluation, Diagnostics and Prognostics of Engineering Systems, 2019, 2, .	0.9	5

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19	Beetle elytron plate and the synergistic mechanism of a trabecular-honeycomb core structure. Science China Technological Sciences, 2019, 62, 87-93.	4.0	54
20	Characteristics of the shear mechanical properties and the influence mechanism of short basalt fiber reinforced polymer composite materials. Journal of Sandwich Structures and Materials, 2019, 21, 1520-1534.	3.5	8
21	Experimental study of the edgewise compressive mechanical properties of biomimetic fully integrated honeycomb plates. Journal of Sandwich Structures and Materials, 2019, 21, 2735-2750.	3.5	10
22	Compression properties of metal beetle elytron plates and the elementary unit of the trabecular-honeycomb core structure. Journal of Sandwich Structures and Materials, 2019, 21, 2031-2041.	3.5	24
23	Design and fabrication of aluminum honeycomb structures based on origami technology. Journal of Sandwich Structures and Materials, 2019, 21, 1224-1242.	3.5	33
24	Ultrasonic Structural Health Monitoring Using Fiber Bragg Grating. Sensors, 2018, 18, 3395.	3.8	60
25	Investigation of hindwing folding in ladybird beetles by artificial elytron transplantation and microcomputed tomography. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5624-5628.	7.1	76
26	Structural characteristics of the core layer and biomimetic model of the ladybug forewing. Micron, 2017, 101, 156-161.	2.2	10
27	The beetle elytron plate: a lightweight, high-strength and buffering functional-structural bionic material. Scientific Reports, 2017, 7, 4440.	3.3	53
28	The deformation mode and strengthening mechanism of compression in the beetle elytron plate. Materials and Design, 2017, 131, 481-486.	7.0	60
29	Fiber-Optic Sensor-Based Remote Acoustic Emission Measurement in a 1000 Â°C Environment. Sensors, 2017, 17, 2908.	3.8	29
30	Design of a 3D Wing Honeycomb Core Based on Origami Techniques. , 2016, , .		4
31	A novel method of identifying damage types in carbon fiber-reinforced plastic cross-ply laminates based on acoustic emission detection using a fiber-optic sensor. Composites Science and Technology, 2016, 135, 116-122.	7.8	36
32	Fiber-optic sensor-based remote acoustic emission measurement of composites. Smart Materials and Structures, 2016, 25, 105033.	3.5	25
33	Investigation of an integrated fiber laser sensor system in ultrasonic structural health monitoring. Smart Materials and Structures, 2016, 25, 035020.	3.5	8
34	The identification of damage types in carbon fiberâ€“reinforced plastic cross-ply laminates using a novel fiber-optic acoustic emission sensor. Structural Health Monitoring, 2016, 15, 93-103.	7.5	23
35	Designing of self-deploying origami structures using geometrically misaligned crease patterns. Proceedings of the Royal Society A: Mathematical, Physical and Engineering Sciences, 2016, 472, 20150235.	2.1	20
36	Application of phase shifted fiber Bragg grating to advanced ultrasonic structural health monitoring. , 2016, , .		0

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37	PARAFAC Decomposition for Ultrasonic Wave Sensing of Fiber Bragg Grating Sensors: Procedure and Evaluation. Sensors, 2015, 15, 16388-16411.	3.8	3
38	New Deployable Structures Based on an Elastic Origami Model. Journal of Mechanical Design, Transactions of the ASME, 2015, 137, .	2.9	32
39	Acoustic emission detection and position identification of transverse cracks in carbon fiberâ€“reinforced plastic laminates by using a novel optical fiber ultrasonic sensing system. Structural Health Monitoring, 2015, 14, 205-213.	7.5	29
40	Fiber Sensor Based on Interferometer and Bragg Grating for Multiparameter Detection. IEEE Photonics Technology Letters, 2015, 27, 1345-1348.	2.5	21
41	Application of a novel optical fiber sensor to detection of acoustic emissions by various damages in CFRP laminates. Smart Materials and Structures, 2015, 24, 015011.	3.5	50
42	Waveform reconstruction for an ultrasonic fiber Bragg grating sensor demodulated by an erbium fiber laser. Applied Optics, 2015, 54, 694.	1.8	7
43	Fiber-optic ultrasonic sensing systems using PS-FBG for damage monitoring in composite materials. , 2015, , .		0
44	Sensitivity Distribution Properties of a Phase-Shifted Fiber Bragg Grating Sensor to Ultrasonic Waves. Sensors, 2014, 14, 1094-1105.	3.8	33
45	Novel optical fiber ultrasonic sensor based on fiber laser. , 2014, , .		0
46	Investigation of dynamic properties of erbium fiber laser for ultrasonic sensing. Optics Express, 2014, 22, 8405.	3.4	29
47	Novel real-time acousto-ultrasonic sensors using two phase-shifted fiber Bragg gratings. Journal of Intelligent Material Systems and Structures, 2014, 25, 640-646.	2.5	18
48	Asymmetric hindwing foldings in rove beetles. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 16349-16352.	7.1	40
49	New Deployable Structures Based on an Elastic Origami Model. , 2013, , .		0
50	Study on Mechanical Performance and Optimal Shape of SMA Artificial Muscle. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2013, 79, 1127-1131.	0.2	0
51	High-sensitivity ultrasonic phase-shifted fiber Bragg grating balanced sensing system. Optics Express, 2012, 20, 28353.	3.4	132
52	Ultrasonic sensor employing two cascaded phase-shifted fiber Bragg gratings suitable for multiplexing. Optics Letters, 2012, 37, 3336.	3.3	34
53	Novel acoustic emission sensor system based on two cascaded phase-shifted fiber Bragg gratings. , 2012, , .		6
54	Damage Detection in Aircraft Composite Materials Using a Built-in Broadband Ultrasonic Propagation System. Journal of System Design and Dynamics, 2011, 5, 966-981.	0.3	1

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55	Lightweight Actuator Structure With SMA Honeycomb Core and CFRP Skins. Journal of Mechanical Design, Transactions of the ASME, 2011, 133, .	2.9	7
56	Fiber Bragg Grating Sensors in Aeronautics and Astronautics. , 2011, , 171-184.		1
57	Debonding Detection in CFRP Bonded Structures Using a Built-In Broadband Lamb Wave Propagation System. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2010, 76, 465-472.	0.2	2
58	Delamination detection in composite laminates using dispersion change based on mode conversion of Lamb waves. Smart Materials and Structures, 2010, 19, 115013.	3.5	65
59	Shape-variable sandwich structure with SMA honeycomb core and CFRP skins. , 2009, , .		3
60	Lightweight Actuator Structure With SMA Honeycomb Core and CFRP Skins. , 2009, , .		0
61	Demonstration of detectability of SHM system with FBG/PZT hybrid system in composite wing box structure. Proceedings of SPIE, 2008, , .	0.8	7
62	â€œSegment-wise modelâ€•for theoretical simulation of barely visible indentation damage in composite sandwich beams: Part I â€“ Formulation. Composites Part A: Applied Science and Manufacturing, 2008, 39, 133-144.	7.6	18
63	Smart Honeycomb Sandwich Panels With Damage Detection and Shape Recovery Functions. Advanced Composite Materials, 2008, 17, 41-56.	1.9	16
64	Structural Health Monitoring of an Advanced Grid Structure with Embedded Fiber Bragg Grating Sensors. Structural Health Monitoring, 2007, 6, 309-324.	7.5	23
65	Impact monitoring of the aircraft composite structure using FBG sensor/PZT actuator hybrid sensor system. , 2007, , .		5
66	Evaluation of debonding progress in composite bonded structures using ultrasonic waves received in fiber Bragg grating sensors. Smart Materials and Structures, 2007, 16, 1370-1378.	3.5	34
67	Smart Composite Sandwich Structures for Future Aerospace Application -Damage Detection and Suppression-: a Review. Journal of Solid Mechanics and Materials Engineering, 2007, 1, 3-17.	0.5	41
68	â€œSegment-wise modelâ€•for theoretical simulation of barely visible indentation damage in composite sandwich beams: Part II â€“ Experimental verification and discussion. Composites Part A: Applied Science and Manufacturing, 2007, 38, 2443-2450.	7.6	9
69	Real-time Detection of Debonding between Honeycomb Core and Facesheet using a Small-diameter FBG Sensor Embedded in Adhesive Layer. Journal of Sandwich Structures and Materials, 2007, 9, 9-33.	3.5	47
70	Design and testing of integrated Bragg grating sensor systems for advanced grid structure. , 2006, 6173, 407.		0
71	Evaluation of debonding progress in composite bonded structures by ultrasonic wave sensing with fiber Bragg grating sensors. , 2006, , .		3
72	Damage growth monitoring for a bonding layer of the aircraft bonding structure. , 2006, , .		2

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73	Feasibility studies on active damage detection for CFRP aircraft bonding structures. Advanced Composite Materials, 2006, 15, 153-173.	1.9	17
74	Evaluation of Crack Suppression Effect of TiNi SMA Foil Embedded in CFRP Cross-Ply Laminates with Embedded Small-Diameter FBG Sensor. JSME International Journal Series A-Solid Mechanics and Material Engineering, 2005, 48, 443-450.	0.4	9
75	Development of smart composite structures with small-diameter fiber Bragg grating sensors for damage detection: Quantitative evaluation of delamination length in CFRP laminates using Lamb wave sensing. Composites Science and Technology, 2005, 65, 2575-2587.	7.8	200
76	Identification of damage location in advanced grid structures using fiber Bragg grating sensor. , 2005, , .		3
77	Modeling of thermo-mechanical behavior of Ti-Ni shape memory alloy foils embedded in carbon fiber reinforced plastic laminates. Advanced Composite Materials, 2005, 14, 25-42.	1.9	8
78	Evaluation of the damage suppression effect of Ti-Ni shape memory alloy foils embedded in carbon fiber reinforced plastic laminates. Advanced Composite Materials, 2005, 14, 43-61.	1.9	2
79	Real-Time Damage Detection of Honeycomb Sandwich Structures using Small-Diameter Fiber Bragg Grating Sensors. , 2005, , 383-392.		3
80	Damage growth detection of composite laminate using embedded FBG sensor/PZT actuator hybrid system. , 2005, , .		7
81	Smart Composite Material and Structure Systems Using Fiber Bragg Grating Sensors. The Review of Laser Engineering, 2005, 33, 577-581.	0.0	0
82	Influence of Stress Induced Birefringence on FBG Sensors Embedded in CFRP Laminates. , 2004, , 937-942.		0
83	Development of damage monitoring system for aircraft structure using a PZT actuator/FBG sensor hybrid system. , 2004, 5388, 425.		12
84	Application of chirped fiber Bragg grating sensors for identification of crack locations in composites. Composites Part A: Applied Science and Manufacturing, 2004, 35, 59-65.	7.6	95
85	Debonding monitoring of a composite repair patch using small-diameter FBG sensors. , 2004, , .		2
86	Temperature-compensated strain measurement using fiber Bragg grating sensors embedded in composite laminates. Smart Materials and Structures, 2003, 12, 940-946.	3.5	75
87	Quantitative evaluation of transverse cracks in carbon fiber reinforced plastic quasi-isotropic laminates with embedded small-diameter fiber Bragg grating sensors. Smart Materials and Structures, 2003, 12, 898-903.	3.5	38
88	Application of chirped FBG sensors for detection of local delamination in composite laminates. , 2003, 5050, 171.		5
89	Application of fiber Bragg grating sensors to real-time strain measurement of cryogenic tanks. , 2003, 5056, 304.		4
90	Effect of fiber coating on crack detection in carbon fiber reinforced plastic composites using fiber Bragg grating sensors. Smart Materials and Structures, 2002, 11, 892-898.	3.5	29

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91	<title>Effect of thermal residual stress on the reflection spectrum from FBG sensors embedded in CFRP composites</title>. , 2002, 4704, 59.		1
92	Quantitative Evaluation of Interlaminar-Toughened CFRP Composite by Ultrasonic Wave Propagation Characteristics. Journal of Composite Materials, 2002, 36, 757-769.	2.4	3
93	<title>Detection of delamination in composite laminates using small-diameter FBG sensors</title>. , 2002, 4694, 138.		4
94	<title>Application of chirped fiber Bragg grating sensors for damage identification in composites</title>. , 2002, 4694, 106.		7
95	<title>Crack identification in CFRP laminates using small-diameter FBG sensors</title>. , 2002, 4694, 330.		1
96	<title>Temperature-compensated strain measurement using FBG sensors embedded in composite laminates</title>. , 2002, , .		4
97	Effect of thermal residual stress on the reflection spectrum from fiber Bragg grating sensors embedded in CFRP laminates. Composites Part A: Applied Science and Manufacturing, 2002, 33, 991-999.	7.6	99
98	Detection of microscopic damages in composite laminates. Composites Science and Technology, 2002, 62, 951-958.	7.8	77
99	Application of small-diameter FBG sensors for detection of damages in composites. , 2001, 4328, 295.		5
100	Health Monitoring of Composite Materials Using Optical Fiber Sensors. Nihon Kikai Gakkai Ronbunshu, A Hen/Transactions of the Japan Society of Mechanical Engineers, Part A, 2001, 67, 378-383.	0.2	1
101	Detection of transverse cracks in CFRP composites using embedded fiber Bragg grating sensors. Smart Materials and Structures, 2000, 9, 832-838.	3.5	159
102	Macroscopic and Microscopic Elastic Constant Measurements of Ceramic Matrix Composites Using Ultrasonic Waves. Journal of Composite Materials, 1999, 33, 1743-1755.	2.4	3
103	For the Practical Use of a Lamb Wave-based SHM System. , 0, , .		1