Adrian J Keating

List of Publications by Year
in descending order

106	1,412	331670	377865
papers	citations	21 h-index	34 g-index

109	109	109	1125
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Comparison of boundary and size effect models based on new developments. Engineering Fracture Mechanics, 2017, 175, 146-167.	4.3	123
2	Widely Tunable MEMS-Based Fabryâ€“Perot Filter. Journal of Microelectromechanical Systems, 2009, 18, 905-913.	2.5	106
3	Three-dimensional mems photonic cross-connect switch design and performance. IEEE Journal of Selected Topics in Quantum Electronics, 2003, 9, 571-578.	2.9	79
4	Occupancy Estimation Using a Low-Pixel Count Thermal Imager. IEEE Sensors Journal, 2016, 16, 3784-3791.	4.7	72
5	Monolithic integration of an infrared photon detector with a MEMS-based tunable filter. IEEE Electron Device Letters, 2005, 26, 888-890.	3.9	54
6	Modeling the static and dynamic behavior of quarter-wave-shifted DFB lasers. IEEE Journal of Quantum Electronics, 1992, 28, 1874-1883.	1.9	46
7	Method for Increasing the Core Count and Area of High Density Optical Fiber Bundles. IEEE Journal of Selected Topics in Quantum Electronics, 2020, 26, 1-8.	2.9	46
8	Reduction of excess intensity noise in spectrum-sliced incoherent light for WDM applications. Journal of Lightwave Technology, 1997, 15, 53-61.	4.6	45
9	Long wavelength vertical-cavity semiconductor optical amplifiers. IEEE Journal of Quantum Electronics, 2001, 37, 274-281.	1.9	44
10	Meeting bulk density sampling requirements efficiently to estimate soil carbon stocks. Soil Research, 2011, 49, 680.	1.1	40
11	Analog characterization of low-voltage MQW traveling-wave electroabsorption modulators. Journal of Lightwave Technology, 2003, 21, 3011-3019.	4.6	39
12	A graphic contract. Journal of Strategic Contracting and Negotiation, 2016, 2, 10-18.	0.8	39
13	Multiwavelength source for spectrum-sliced WDM access networks and LAN's. IEEE Photonics Technology Letters, 1997, 9, 1014-1016.	2.5	37
14	Development of an Alkaline-Compatible Porous-Silicon Photolithographic Process. Journal of Microelectromechanical Systems, 2011, 20, 418-423.	2.5	32
15	Design and Characterization of Fabryâ€“PÃ©rot MEMS-Based Short-Wave Infrared Microspectrometers. Journal of Electronic Materials, 2008, 37, 1811-1820.	2.2	27
16	Uniform Dispersion of Lanthanum Hexaboride Nanoparticles in a Silica Thin Film: Synthesis and Optical Properties. ACS Applied Materials & Interfaces, 2012, 4, 5833-5838.	8.0	27
17	Feedforward noise reduction of incoherent light for spectrum-sliced transmission at 2.5 Gb/s. IEEE Photonics Technology Letters, 1995, 7, 1513-1515.	2.5	26
18	Optical characterization of Fabry-Pe/spl acute/rot MEMS filters integrated on tunable short-wave IR detectors. IEEE Photonics Technology Letters, 2006, 18, 1079-1081.	2.5	26

#	Article	IF	Citations
19	Low temperature N2-based passivation technique for porous silicon thin films. Solid State Communications, 2009, 149, 1322-1325.	1.9	26
20	1.3-Î¼m vertical-cavity amplifier. IEEE Photonics Technology Letters, 2000, 12, 951-953.	2.5	24
21	N[sub 2]-Based Thermal Passivation of Porous Silicon to Achieve Long-Term Optical Stability. Electrochemical and Solid-State Letters, 2010, 13, H428.	2.2	22
22	Pulsed Anodization for Control of Porosity Gradients and Interface Roughness in Porous Silicon. Journal of the Electrochemical Society, 2009, 156, H744.	2.9	20
23	Comparative acoustic performance and mechanical properties of silk membranes for the repair of chronic tympanic membrane perforations. Journal of the Mechanical Behavior of Biomedical Materials, 2016, 64, 65-74.	3.1	20
24	MEMS based hydrogen sensing with parts-per-billion resolution. Sensors and Actuators B: Chemical, 2019, 281, 335-342.	7.8	18
25	Model and Analysis of a High Sensitivity Resonant Optical Read-Out Approach Suitable for Cantilever Sensor Arrays. Journal of Lightwave Technology, 2012, 30, 1863-1868.	4.6	17
26	Stress control of porous silicon films for microelectromechanical systems. Microporous and Mesoporous Materials, 2015, 218, 88-94.	4.4	17
27	A Technique for Fabricating Uniform Double-Sided Porous Silicon Wafers. Electrochemical and Solid-State Letters, 2007, 10, D130.	2.2	15
28	Multilayer porous silicon diffraction gratings operating in the infrared. Nanoscale Research Letters, 2012, 7, 645.	5.7	15
29	High-temperature optically pumped 1.55-Î¼m VCSEL operating at 6 Gb/s. IEEE Photonics Technology Letters, 2000, 12, 116-118.	2.5	14
30	On-chip read-out of picomechanical motion under ambient conditions. Nanoscale, 2015, 7, 1927-1933.	5.6	14
31	Process Control of Cantilever Deflection for Sensor Application Based on Optical Waveguides. Journal of Microelectromechanical Systems, 2013, 22, 569-579.	2.5	13
32	Determination of thermal conductivity, thermal diffusivity and specific heat capacity of porous silicon thin films using the 3Ï‰ method. International Journal of Heat and Mass Transfer, 2022, 184, 122346.	4.8	13
33	Simultaneous OTDM demultiplexing and detection using an electroabsorptioa modulator. IEEE Photonics Technology Letters, 2000, 12, 711-713.	2.5	12
34	Chemical resistance of porous silicon: photolithographic applications. Physica Status Solidi C: Current Topics in Solid State Physics, 2011, 8, 1847-1850.	0.8	12
35	Materials and Processes for MEMS-Based Infrared Microspectrometer Integrated on HgCdTe Detector. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 1031-1041.	2.9	11
36	Surface Morphology Control of Passivated Porous Silicon Using Reactive Ion Etching. Journal of Microelectromechanical Systems, 2012, 21, 756-761.	2.5	11

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37	Large Area Silicon-Air-Silicon DBRs for Infrared Filter Applications. Journal of Lightwave Technology, 2019, 37, 769-779.	4.6	11
38	Optimising porous silicon electrical properties for thermal sensing applications. Microporous and Mesoporous Materials, 2021, 312, 110767.	4.4	11
39	Enabling high-porosity porous silicon as an electronic material. Microporous and Mesoporous Materials, 2021, 312, 110808.	4.4	11
40	Engineering 1/f noise in porous silicon thin films for thermal sensing applications. Microporous and Mesoporous Materials, 2021, 324, 111302.	4.4	11
41	Process condition dependence of mechanical and physical properties of silicon nitride thin films. Journal of Applied Physics, 2007, 102, 103517.	2.5	10
42	High-speed operation of travelling-wave electroabsorption modulator. Electronics Letters, 1999, 35, 993.	1.0	9
43	Short-wavelength infrared tuneable filters on HgCdTe photoconductors. Optics Express, 2005, 13, 9683.	3.4	9
44	Tunable Fabry-Perot filters operating in the 3 to 5 Î¼m range for infrared micro-spectrometer applications. , 2006, 6186, 69.		9
45	Photocurrent-Assisted Wavelength (PAW) Conversion With Electrical Monitoring Capability Using a Traveling-Wave Electroabsorption Modulator. IEEE Photonics Technology Letters, 2004, 16, 530-532.	2.5	8
46	Atomic force microscopy with integrated on-chip interferometric readout. Ultramicroscopy, 2019, 205, 75-83.	1.9	8
47	Fabrication of uniform porosity, all-porous-silicon microstructures and stress/stress gradient control. Journal of Micromechanics and Microengineering, 2017, 27, 044001.	2.6	7
48	Control of Sidewall Profile in Dry Plasma Etching of Polyimide. Journal of Microelectromechanical Systems, 2017, 26, 593-600.	2.5	7
49	Surface micromachining multilayer porous silicon for spectral filtering applications. Materials Science in Semiconductor Processing, 2022, 138, 106314.	4.0	7
50	Extending the tuning range of SWIR microspectrometers. , 2007, , .		6
51	Integrated Resonant Optical Readout Applicable to Large Arrays of MEMS Beams. IEEE Photonics Technology Letters, 2012, 24, 2243-2246.	2.5	6
52	Released micromachined beams utilizing laterally uniform porosity porous silicon. Nanoscale Research Letters, 2014, 9, 426.	5.7	6
53	Compensating porosity gradient to produce flat, micromachined porous silicon structures. Microporous and Mesoporous Materials, 2019, 284, 427-433.	4.4	6
54	Distributed Magnetic Flux Density on the Cross-Section of a Transformer Core. Electronics (Switzerland), 2019, 8, 297.	3.1	6

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55	MEMS-based Fabry-Perot microspectrometers for agriculture. Proceedings of SPIE, 2009, , .	0.8	5
56	Wavelength stabilization in packet-switched WDM networks. Journal of Lightwave Technology, 1997, 15, 76-85.	4.6	4
57	Micro-electromechanical systems-based microspectrometers covering wavelengths from 1500nm to 5000nm. , 2007, , .		4
58	MEMS-based tunable Fabry-Perot filters on silicon substrates. Optoelectronic and Microelectronic Materials and Devices (COMMAD), Conference on, 2008, , .	0.0	4
59	A High Deposition Rate Amorphous-Silicon Process for Use as a Thick Sacrificial Layer in Surface-Micromachining. Journal of Microelectromechanical Systems, 2017, 26, 406-414.	2.5	4
60	Characterizing the Performance of LED Reflective Distance Sensors. IEEE Access, 2017, 5, 14289-14297.	4.2	4
61	Micromachined microbeams made from porous silicon for dynamic and static mode sensing. Sensors and Actuators A: Physical, 2018, 269, 91-98.	4.1	4
62	Micromachined porous silicon Fabry-PÃ©rot long wavelength infrared filters. Sensors and Actuators A: Physical, 2021, 332, 113101.	4.1	4
63	OPTICAL MEMS TECHNOLOGIES FOR ELECTRICALLY TUNABLE MULTI-SPECTRAL SHORT-WAVE INFRARED SENSORS AND ARRAYS. International Journal of High Speed Electronics and Systems, 2008, 18, 1035-1044.	0.7	3
64	Selective Oxidation and Carbonization by Laser Writing into Porous Silicon. Advanced Materials Technologies, 2019, 4, 1800334.	5.8	3
65	Small Split-Ring Resonators as Efficient Antennas for Remote LoRa IOT Systemsâ€"A Path to Reduce Physical Interference. Sensors, 2021, 21, 7779.	3.8	3
66	Fabry-Perot MEMS microspectrometers spanning the SWIR and MWIR. , 2007, , .		2
67	Characterization and Modeling of Photostriction in Silicon Cantilevers Fabricated on Silicon-on-Insulator Substrates. Journal of Microelectromechanical Systems, 2015, 24, 182-191.	2.5	2
68	Photolithography on Porous Silicon. , 2014, , 531-539.		2
69	Ge/BaF2 thin-films for surface micromachined mid-wave and long-wave infrared reflectors. Journal of Optical Microsystems, 2022, 2, .	1.5	2
70	Mechanical properties of thermally evaporated germanium (Ge) and barium fluoride (BaF2) thin-films. MRS Communications, 2022, 12, 112-118.	1.8	2
71	Large-area narrowband Fabryâ€"PÃ©rot interferometers for long-wavelength infrared spectral sensing. Journal of Optical Microsystems, 2022, 2, .	1.5	2
72	Mitigation of optical crosstalk penalty in photonic cross-connects using forward error correction. Electronics Letters, 2003, 39, 678.	1.0	1

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73	Reactive ion etching of porous silicon for MEMS applications. , 2010, , .		1
74	Long-wavelength infrared Fabry-Perot etalon for multi-spectral thermal imaging. , 2013, , .		1
75	Stress control of porous silicon film for microelectromechanical systems. , 2014, , .		1
76	Tailoring Anchor Etching Profiles During MEMS Release Using Microfluidic Sheathed Flow. Journal of Microelectromechanical Systems, 2014, 23, 918-926.	2.5	1
77	MEMS-based Low SWaP Solutions for Multi/Hyperspectral Infrared Sensing and Imaging. , 2018, , .		1
78	Porous Silicon Diffraction Gratings. , 2014, , 823-833.		1
79	Doubly-Supported Beam Actuators for MEMS-based Tunable Fabry-Perot Etalons. , 2006, , .		0
80	Feasibility of a CWDM-based in-situ monitoring system for characterizing porous silicon growth. , 2007, , .		0
81	Rapid prototyping of microfluidic devices using imprinting: application to microvalves and micropumps. Proceedings of SPIE, 2008, , .	0.8	0
82	Cross-flow microfiltration for lab-on-chip defatting of human breast milk. Proceedings of SPIE, 2008, , .	0.8	0
83	An in-situ monitoring system for characterizing porous silicon growth. Proceedings of SPIE, 2008, , .	0.8	0
84	Demonstration of a method for detecting MEMS suspended beam height. , 2012, , .		0
85	A WDM Capable Integrated Optical Readout of a MEMS Sensor. Procedia Engineering, 2012, 47, 386-389.	1.2	0
86	Optical actuation of silicon cantilevers: modelling and experimental investigation. , 2013, , .		0
87	Targeted sacrificial layer etching for MEMS release using microfluidic channels. , 2013, , .		0
88	Microcantilevers as a platform for the detection of hydrogen. , 2014, , .		0
89	Capturing the impulse response of a second order system. , 2014, , .		0
90	Low temperature through-wafer reactive ion etching for MEMS. , 2014, , .		0

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91	Targeted machining during MEMS device fabrication using PDMS microfluidic cassettes. , 2014, , .		0
92	An optically resonant position read-out system for MEMS gas sensors. , 2014, , .		0
93	Photolithography on Porous Silicon. , 2014, , 1-8.		0
94	Porous Silicon Diffraction Gratings. , 2014, , 1-10.		0
95	Engineering porous silicon thin films to obtain high TCR and low 1/f noise for application in thermal detectors. , 2018, , .		0
96	Using thermography to investigate thermal characteristics of porous silicon. , 2018, , .		0
97	Method for optical modelling of non-uniform and non-parallel multi-thin film MEMS optical filters and mirrors. , 2018, , .		0
98	Released all-porous-silicon microstructure for spectrometer applications. , 2018, , .		0
99	Modelling and Fabrication of Anti-Stiction Features for Electrostatically Actuated Microsystems. , 2018, , .		0
100	Study of Porosity Gradient in Released Porous Silicon Microstructures. , 2018, , .		0
101	Framework for Validation of Permanently Installed MEMS-Based Acquisition Devices Using Soft Sensor Models. CivilEng, 2020, 1, 93-105.	1.4	0
102	Pattern transferring of Prolift-100 polymer sacrificial layers with controlled sidewall profile. Journal of Micromechanics and Microengineering, 2021, 31, 075001.	2.6	0
103	Semiâ€automated detection of milk duct dilatation recorded by ultrasound (1016.5). FASEB Journal, 2014, 28, 1016.5.	0.5	0
104	Photolithography on Porous Silicon. , 2018, , 797-804.		0
105	Porous Silicon Diffraction Gratings. , 2018, , 1219-1229.		0
106	Analytic approximation for the collapse of viscous tubes driven by surface tension and pressure difference. Archive of Applied Mechanics, 2022, 92, 1571.	2.2	0