

Abraham Katzir

List of Publications by Year in descending order

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Version: 2024-02-01

58
papers

1,089
citations

430874

18
h-index

434195

31
g-index

60
all docs

60
docs citations

60
times ranked

1144
citing authors

#	ARTICLE	IF	CITATIONS
1	Probing the secondary structure of bovine serum albumin during heat-induced denaturation using mid-infrared fiberoptic sensors. <i>Analyst, The</i> , 2015, 140, 765-770.	3.5	128
2	High-sensitivity infrared attenuated total reflectance sensors for in situ multicomponent detection of volatile organic compounds in water. <i>Nature Protocols</i> , 2016, 11, 377-386.	12.0	85
3	Infrared Evanescent Field Sensing with Quantum Cascade Lasers and Planar Silver Halide Waveguides. <i>Analytical Chemistry</i> , 2005, 77, 4398-4403.	6.5	63
4	Using Attenuated Total Reflectionâ€“Fourier Transform Infra-Red (ATR-FTIR) spectroscopy to distinguish between melanoma cells with a different metastatic potential. <i>Scientific Reports</i> , 2017, 7, 4381.	3.3	45
5	Experimental study of co2 laser myringotomy with a hand-held otoscope and fiberoptic delivery system. <i>Lasers in Surgery and Medicine</i> , 1994, 15, 249-253.	2.1	44
6	IRâ€“ATR Chemical Sensors Based on Planar Silver Halide Waveguides Coated with an Ethylene/Propylene Copolymer for Detection of Multiple Organic Contaminants in Water. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 2265-2268.	13.8	44
7	Silver halide fiber optic radiometric temperature measurement and control of CO2 laser-irradiated tissues and application to tissue welding. <i>Lasers in Surgery and Medicine</i> , 1994, 14, 323-328.	2.1	42
8	New Frontiers for Mid-Infrared Sensors: Towards Deep Sea Monitoring with a Submarine FT-IR Sensor System. <i>Applied Spectroscopy</i> , 2003, 57, 591-599.	2.2	42
9	Determination of Chlorinated Hydrocarbons in Water Using Highly Sensitive Mid-Infrared Sensor Technology. <i>Scientific Reports</i> , 2013, 3, 2525.	3.3	42
10	Subjective Comparison of Nd:YAG, Diode, and CO2 Lasers for Endoscopically Guided Inferior Turbinate Reduction Surgery. <i>American Journal of Rhinology & Allergy</i> , 1998, 12, 209-212.	2.2	39
11	Immediate Tight Sealing of Skin Incisions Using an Innovative Temperature-controlled Laser Soldering Device. <i>Annals of Surgery</i> , 2007, 245, 206-213.	4.2	37
12	Temperature controlled CO2 laser welding of soft tissues: Urinary bladder welding in different animal models (rats, rabbits, and cats). , 2000, 26, 4-12.		33
13	Temperatureâ€“controlled twoâ€“wavelength laser soldering of tissues. <i>Lasers in Surgery and Medicine</i> , 2011, 43, 907-913.	2.1	30
14	Spectral emissivity and temperature measurements of selective bodies using multiband fiber-optic radiometry. <i>Journal of Applied Physics</i> , 2004, 96, 3507-3513.	2.5	27
15	In vitro large diameter bowel anastomosis using a temperature controlled laser tissue soldering system and albumin stent. <i>Lasers in Surgery and Medicine</i> , 2009, 41, 504-508.	2.1	24
16	Thin ordered bundles of infrared-transmitting silver halide fibers. <i>Applied Physics Letters</i> , 2005, 87, 241122.	3.3	22
17	Silver-halide segmented cladding fibers for the middle infrared. <i>Applied Physics Letters</i> , 2006, 88, 251101.	3.3	20
18	Fourier transform infrared spectroscopy on external perturbations inducing secondary structure changes of hemoglobin. <i>Analyst, The</i> , 2016, 141, 6061-6067.	3.5	20

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19	Thermal imaging by ordered bundles of silver halide crystalline fibers. Applied Physics Letters, 1992, 61, 1384-1386.	3.3	19
20	Temperature-controlled laser-soldering system and its clinical application for bonding skin incisions. Journal of Biomedical Optics, 2015, 20, 128002.	2.6	17
21	Toward the Required Detection Limits for Volatile Organic Constituents in Marine Environments with Infrared Evanescent Field Chemical Sensors. Sensors, 2019, 19, 3644.	3.8	17
22	Surface-Enhanced Infrared Absorption and Amplified Spectra on Planar Silver Halide Fiber. Journal of Physical Chemistry B, 2004, 108, 12633-12636.	2.6	16
23	Robot-assisted laser tissue soldering system. Biomedical Optics Express, 2018, 9, 5635.	2.9	16
24	Bonding surgical incisions using a temperature-controlled laser system based on a single infrared fiber. Journal of Biomedical Optics, 2013, 18, 111416.	2.6	15
25	Scanning near field infrared radiometry for thermal imaging of infrared emitters with subwavelength resolution. Applied Physics Letters, 2005, 87, 101109.	3.3	14
26	CO ₂ Laser Fascia to Dura Soldering for Pig Dural Defect Reconstruction. Skull Base, 2007, 17, 017-023.	0.4	14
27	Single-Mode Index-Guiding Photonic Crystal Fibers for the Middle Infrared. IEEE Photonics Technology Letters, 2008, 20, 869-871.	2.5	12
28	Single-mode octagonal photonic crystal fibers for the middle infrared. Applied Physics Letters, 2008, 92, 021112.	3.3	12
29	Comparison of flash lamp pulsed-dye laser (585 nm) and conventional surgery in the delay of random dorsal rat flaps. , 1999, 25, 178-186.		11
30	CO ₂ Laser Welding of Corneal Cuts with Albumin Solder Using Radiometric Temperature Control. Ophthalmic Research, 2013, 50, 174-179.	1.9	11
31	Development of tapered silver-halide fiber tips for a scanning near-field microscope operating in the middle infrared. Review of Scientific Instruments, 2006, 77, 126103.	1.3	10
32	Technical Note: Noninvasive mid-IR fiber-optic evanescent wave spectroscopy (FEWS) for early detection of skin cancers. Medical Physics, 2020, 47, 5523-5530.	3.0	9
33	Real-time bioprocess monitoring using a mid-infrared fibre-optic sensor. Biochemical Engineering Journal, 2021, 167, 107889.	3.6	9
34	Laser irradiation of biological tissue through water as a means of reducing thermal damage. Lasers in Surgery and Medicine, 1996, 19, 407-412.	2.1	8
35	Laser soldering of the cornea in a rabbit model using a controlled-temperature CO ₂ laser system. , 2001, , .		8
36	Study of water diffusion in polyacrylonitrile using IR fiber optic evanescent wave spectroscopy. Polymers for Advanced Technologies, 2002, 13, 1039-1045.	3.2	8

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37	A scanning near-field middle-infrared microscope for the study of objects submerged in water. Applied Physics Letters, 2008, 92, 104104.	3.3	8
38	<title>Temperature-controlled CO$_2$ laser tissue welding of ocular tissues</title>. , 1997, 2971, 103.		7
39	A Scanning Electron Microscopy Study of CO ₂ Laser-Albumin Soldering in the Rabbit Model. Photomedicine and Laser Surgery, 2004, 22, 461-469.	2.0	7
40	In vitro conjunctival incision repair by temperature-controlled laser soldering. Journal of Biomedical Optics, 2009, 14, 064016.	2.6	7
41	Mid-IR evanescent-field fiber sensor with enhanced sensitivity for volatile organic compounds. RSC Advances, 2019, 9, 21186-21191.	3.6	7
42	Strong bonding of corneal incisions using a noncontact fiber-optic laser soldering method. Journal of Biomedical Optics, 2019, 24, 1.	2.6	5
43	Experimental Characterization of Transient Burning Properties of RDXâ€“XLDB Propellant. Journal of Propulsion and Power, 2013, 29, 305-312.	2.2	4
44	Fiber-optic evanescent wave spectroscopy (FEWS) of crystals from a urine sample as a tool for evaluating the chemical composition of kidney stones. Analytical Methods, 2019, 11, 2404-2409.	2.7	4
45	Infrared fiber optic spectroscopy: a novel tool for skin diagnosis. , 2004, 5321, 44.		3
46	Immediate retinal adhesion by CO ₂ laser irradiation using a fiberoptic intraocular probe. Lasers in Surgery and Medicine, 1992, 12, 604-608.	2.1	2
47	A Scanning Near-Field Infrared Microscope Based on AgClBr Fiber Probes. IEEE Journal of Selected Topics in Quantum Electronics, 2008, 14, 19-28.	2.9	2
48	Optical coherence tomography (OCT) in laser tissue bonding of incisions in the cornea. , 2015, , .		2
49	CO ₂ temperature-controlled laser soldering of pig trachea incisions in vitro using flexible albumin bands. , 2005, 5686, 242.		1
50	Iron doped silver halide crystals and their potential as middle infrared solid state lasers. Applied Physics Letters, 2014, 104, 041116.	3.3	1
51	Closure of incision in cataract surgery in-vivo using a temperature controlled laser soldering system based on a 1.9 μ m semiconductor laser. , 2016, , .		1
52	Laser Soldering of Cartilage Graft Interposed Into a Tracheal Incision in a Porcine Model. Laryngoscope, 2019, 129, 58-62.	2.0	1
53	Laser irradiation of biological tissue through water as a means of reducing thermal damage. , 1996, 19, 407.		1
54	Fiber-optic middle infrared evanescent wave spectroscopy for early detection of melanoma. , 2019, , .		1

#	ARTICLE	IF	CITATIONS
55	The potential of rare earth doped silver halide crystals for mid-IR solid state lasers & fiber lasers and amplifiers. , 2006, , .		0
56	Rare earth doped silver halide crystals: a new candidate for mid-IR solid lid state lasers & fiber lasers and amplifiers. , 2007, , .		0
57	Scanning near-field infrared microscopy for biomedical imaging with a subwavelength spatial resolution. , 2021, , .		0
58	Mid-IR fiber-optic sensor systems for online monitoring of the quality of water: for environmental protection and homeland security (Conference Presentation). , 2020, , .		0