

Abraham Katzir

List of Publications by Year in descending order

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Version: 2024-02-01

58
papers

1,089
citations

430442

18
h-index

433756

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. | 1.7 | 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. | 5.5 | 85 |
| 3 | Infrared Evanescent Field Sensing with Quantum Cascade Lasers and Planar Silver Halide Waveguides. <i>Analytical Chemistry</i> , 2005, 77, 4398-4403. | 3.2 | 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. | 1.6 | 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. | 1.1 | 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. | 7.2 | 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. | 1.1 | 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. | 1.2 | 42 |
| 9 | Determination of Chlorinated Hydrocarbons in Water Using Highly Sensitive Mid-Infrared Sensor Technology. <i>Scientific Reports</i> , 2013, 3, 2525. | 1.6 | 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. | 2.3 | 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. | 2.1 | 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. | 1.1 | 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. | 1.1 | 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. | 1.1 | 24 |
| 16 | Thin ordered bundles of infrared-transmitting silver halide fibers. <i>Applied Physics Letters</i> , 2005, 87, 241122. | 1.5 | 22 |
| 17 | Silver-halide segmented cladding fibers for the middle infrared. <i>Applied Physics Letters</i> , 2006, 88, 251101. | 1.5 | 20 |
| 18 | Fourier transform infrared spectroscopy on external perturbations inducing secondary structure changes of hemoglobin. <i>Analyst, The</i> , 2016, 141, 6061-6067. | 1.7 | 20 |

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|----|--|-----|-----------|
| 19 | Thermal imaging by ordered bundles of silver halide crystalline fibers. Applied Physics Letters, 1992, 61, 1384-1386. | 1.5 | 19 |
| 20 | Temperature-controlled laser-soldering system and its clinical application for bonding skin incisions. Journal of Biomedical Optics, 2015, 20, 128002. | 1.4 | 17 |
| 21 | Toward the Required Detection Limits for Volatile Organic Constituents in Marine Environments with Infrared Evanescent Field Chemical Sensors. Sensors, 2019, 19, 3644. | 2.1 | 17 |
| 22 | Surface-Enhanced Infrared Absorption and Amplified Spectra on Planar Silver Halide Fiber. Journal of Physical Chemistry B, 2004, 108, 12633-12636. | 1.2 | 16 |
| 23 | Robot-assisted laser tissue soldering system. Biomedical Optics Express, 2018, 9, 5635. | 1.5 | 16 |
| 24 | Bonding surgical incisions using a temperature-controlled laser system based on a single infrared fiber. Journal of Biomedical Optics, 2013, 18, 111416. | 1.4 | 15 |
| 25 | Scanning near field infrared radiometry for thermal imaging of infrared emitters with subwavelength resolution. Applied Physics Letters, 2005, 87, 101109. | 1.5 | 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. | 1.3 | 12 |
| 28 | Single-mode octagonal photonic crystal fibers for the middle infrared. Applied Physics Letters, 2008, 92, 021112. | 1.5 | 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. | 1.0 | 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. | 0.6 | 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. | 1.6 | 9 |
| 33 | Real-time bioprocess monitoring using a mid-infrared fibre-optic sensor. Biochemical Engineering Journal, 2021, 167, 107889. | 1.8 | 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. | 1.1 | 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. | 1.6 | 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. | 1.5 | 8 |
| 38 | <title>Temperature-controlled COCO_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. | 2.1 | 7 |
| 40 | In vitro conjunctival incision repair by temperature-controlled laser soldering. Journal of Biomedical Optics, 2009, 14, 064016. | 1.4 | 7 |
| 41 | Mid-IR evanescent-field fiber sensor with enhanced sensitivity for volatile organic compounds. RSC Advances, 2019, 9, 21186-21191. | 1.7 | 7 |
| 42 | Strong bonding of corneal incisions using a noncontact fiber-optic laser soldering method. Journal of Biomedical Optics, 2019, 24, 1. | 1.4 | 5 |
| 43 | Experimental Characterization of Transient Burning Properties of RDXâ€“XLDB Propellant. Journal of Propulsion and Power, 2013, 29, 305-312. | 1.3 | 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. | 1.3 | 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. | 1.1 | 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. | 1.9 | 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. | 1.5 | 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. | 1.1 | 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 |

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|----|--|----|-----------|
| 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 |