

Hyun Wook Kang

List of Publications by Year in descending order

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113
papers

1,694
citations

304743

22
h-index

361022

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all docs

113
docs citations

113
times ranked

1701
citing authors

#	ARTICLE	IF	CITATIONS
1	Enhanced precision of real-time control photothermal therapy using cost-effective infrared sensor array and artificial neural network. <i>Computers in Biology and Medicine</i> , 2022, 141, 104960.	7.0	3
2	A phlorotannins-loaded homogeneous acellular matrix film modulates post-implantation inflammatory responses. <i>Journal of Tissue Engineering and Regenerative Medicine</i> , 2022, 16, 51-62.	2.7	8
3	Collective bacterial disinfection by opto-chemical treatment on mature biofilm in clinical endoscope. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2022, 226, 112367.	3.8	2
4	Universal Convolutional Neural Network for Histology-Independent Analysis of Collagen Fiber Organization in Scar Tissue. <i>IEEE Access</i> , 2022, 10, 34379-34392.	4.2	1
5	Laser ablation of pancreatic cancer using a cylindrical light diffuser. <i>Lasers in Medical Science</i> , 2022, 37, 2615-2621.	2.1	4
6	Impact of residual air trap in balloon on laser treatment of tubular tissue. <i>Lasers in Surgery and Medicine</i> , 2022, 54, 767-778.	2.1	2
7	Automated Structural Analysis and Quantitative Characterization of Scar Tissue Using Machine Learning. <i>Diagnostics</i> , 2022, 12, 534.	2.6	5
8	Enhancement of gold nanorods-assisted photothermal treatment on cancer with laser power in stepwise modulation. <i>Lasers in Surgery and Medicine</i> , 2022, 54, 841-850.	2.1	3
9	Endoscopic Ultrasound-Guided Laser Ablation Using a Diffusing Applicator for Locally Advanced Pancreatic Cancer Treatment. <i>Cancers</i> , 2022, 14, 2274.	3.7	10
10	Real-time monitoring of mono- and dual-species biofilm formation and eradication using microfluidic platform. <i>Scientific Reports</i> , 2022, 12, .	3.3	10
11	Stimulatory effects of wavelength-dependent photobiomodulation on proliferation and angiogenesis of colorectal cancer. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2022, 234, 112527.	3.8	2
12	Evaluations on laser ablation of ex vivo porcine stomach tissue for development of Ho:YAG-assisted endoscopic submucosal dissection (ESD). <i>Lasers in Medical Science</i> , 2021, 36, 1437-1444.	2.1	5
13	The use of a 532-nm laser fitted with a balloon and a cylindrical light diffuser to treat benign biliary stricture: a pilot study. <i>Lasers in Medical Science</i> , 2021, 36, 25-31.	2.1	6
14	In vitro anti-tumor effect of high-fluence low-power laser light on apoptosis of human colorectal cancer cells. <i>Lasers in Medical Science</i> , 2021, 36, 513-520.	2.1	7
15	EGFR-conjugated hydrogel accelerates wound healing on ulcer-induced burn wounds by targeting collagen and inflammatory cells using photoimmunomodulatory inhibition. <i>Materials Science and Engineering C</i> , 2021, 118, 111541.	7.3	18
16	Multiple cylindrical interstitial laser ablations (CILAs) of porcine pancreas in <i>ex vivo</i> and <i>in vivo</i> models. <i>International Journal of Hyperthermia</i> , 2021, 38, 1313-1321.	2.5	4
17	Deep Learning for Analysis of Collagen Fiber Organization in Scar Tissue. <i>IEEE Access</i> , 2021, 9, 101755-101764.	4.2	7
18	Multi-Lens Arrays (MLA)-Assisted Photothermal Effects for Enhanced Fractional Cancer Treatment: Computational and Experimental Validations. <i>Cancers</i> , 2021, 13, 1146.	3.7	4

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19	Dependence of laser-induced optical breakdown on skin type during 1064-nm picosecond laser treatment. <i>Journal of Biophotonics</i> , 2021, 14, e202100129.	2.3	8
20	Endoscopic ultrasound (EUS)-guided cylindrical interstitial laser ablation (CILA) on in vivo porcine pancreas. <i>Biomedical Optics Express</i> , 2021, 12, 4423.	2.9	10
21	Synthesis of nanohydroxyapatite/collagen-loaded fucoidan-based composite hydrogel for drug delivery to gastrointestinal cancer cells. <i>Colloids and Surfaces B: Biointerfaces</i> , 2021, 203, 111769.	5.0	7
22	Phloroglucinol-Combined Photobiomodulation for Minimizing Burn-Induced Skin Fibrosis. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2021, 27, 1-9.	2.9	4
23	Opto-chemical treatment for enhanced high-level disinfection of mature bacterial biofilm in a Teflon-based endoscope model. <i>Biomedical Optics Express</i> , 2021, 12, 5736.	2.9	2
24	Near-infrared Transillumination and Photodynamic Therapy Using Hypericin in Animal Laryngeal Tumors. <i>Tissue Engineering and Regenerative Medicine</i> , 2021, 18, 941-951.	3.7	6
25	<i>In Vivo</i> Investigation of Noncontact Rapid Photothermal Hemostasis on Venous and Arterial Bleeding. <i>IEEE Transactions on Biomedical Engineering</i> , 2021, 68, 2689-2697.	4.2	1
26	Phloroglucinol-Gold and -Zinc Oxide Nanoparticles: Antibiofilm and Antivirulence Activities towards <i>Pseudomonas aeruginosa</i> PAO1. <i>Marine Drugs</i> , 2021, 19, 601.	4.6	26
27	Feasibility study of endoscopic thermal coagulation with circumferential laser irradiation for treating esophageal tissue. <i>Lasers in Medical Science</i> , 2020, 35, 893-900.	2.1	4
28	Fabrication and biological activity of polycaprolactone/phlorotannin endotracheal tube to prevent tracheal stenosis: An in vitro and in vivo study. <i>Journal of Biomedical Materials Research - Part B Applied Biomaterials</i> , 2020, 108, 1046-1056.	3.4	17
29	Combined treatment of low-level laser therapy and phloroglucinol for inhibition of fibrosis. <i>Lasers in Surgery and Medicine</i> , 2020, 52, 276-285.	2.1	8
30	In vitro anti-tumor effect of low-power laser irradiation (LPLI) on gastroenterological carcinoma cells. <i>Lasers in Medical Science</i> , 2020, 35, 677-685.	2.1	3
31	Application of Ultrasound Thermal Imaging for Monitoring Laser Ablation in Ex Vivo Cardiac Tissue. <i>Lasers in Surgery and Medicine</i> , 2020, 52, 218-227.	2.1	9
32	Dependence of laser-induced tissue ablation on optical fiber movements for laser prostatectomy. <i>World Journal of Urology</i> , 2020, 38, 2253-2259.	2.2	2
33	Transoral Low-Level Laser Therapy Via a Cylindrical Device to Treat Oral Ulcers in a Rodent Model. <i>Lasers in Surgery and Medicine</i> , 2020, 52, 647-652.	2.1	8
34	Multifunctional heteropolysaccharide hydrogel under photobiomodulation for accelerated wound regeneration. <i>Ceramics International</i> , 2020, 46, 7268-7278.	4.8	13
35	Epidermal growth factor receptor conjugated fucoidan/alginate loaded hydrogel for activating EGFR/AKT signaling pathways in colon cancer cells during targeted photodynamic therapy. <i>International Journal of Biological Macromolecules</i> , 2020, 158, 1163-1174.	7.5	24
36	Temporal modulation of optical energy for enhanced photothermal hemostasis of intraoperative bleeding during laser treatment. <i>Journal of Biophotonics</i> , 2020, 13, e202000086.	2.3	1

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37	Fucoidan-loaded hydrogels facilitates wound healing using photodynamic therapy by in vitro and in vivo evaluation. Carbohydrate Polymers, 2020, 247, 116624.	10.2	43
38	Cellulose nanocrystals/nanofibrils loaded astaxanthin nanoemulsion for the induction of apoptosis via ROS-dependent mitochondrial dysfunction in cancer cells under photobiomodulation. International Journal of Biological Macromolecules, 2020, 149, 165-177.	7.5	12
39	Quantitative Monitoring of Tattoo Contrast Variations after 755-nm Laser Treatments in In Vivo Tattoo Models. Sensors, 2020, 20, 285.	3.8	4
40	Effect of optical energy modulation on the thermal response of biological tissue: computational and experimental validations. Biomedical Optics Express, 2020, 11, 6905.	2.9	7
41	Laser-induced optical breakdown effects of micro-lens arrays and diffractive optical elements on ex vivo porcine skin after 1064-nm picosecond laser irradiation. Biomedical Optics Express, 2020, 11, 7286.	2.9	17
42	The Influence of Astaxanthin on the Proliferation of Adipose-derived Mesenchymal Stem Cells in Gelatin-Methacryloyl (GelMA) Hydrogels. Materials, 2019, 12, 2416.	2.9	11
43	Development of temperature controller-integrated portable HIFU driver for thermal coagulation. BioMedical Engineering OnLine, 2019, 18, 77.	2.7	9
44	Engineering pharmaceutical nanocarriers for photodynamic therapy on wound healing: Review. Materials Science and Engineering C, 2019, 105, 110110.	7.3	66
45	Contrast-Enhancing Optical Probe for Near-Infrared Fluorescence Imaging Under Surgical Light Illumination. Journal of the Korean Physical Society, 2019, 74, 568-573.	0.7	0
46	Nanoengineered chlorin e6 conjugated with hydrogel for photodynamic therapy on cancer. Colloids and Surfaces B: Biointerfaces, 2019, 181, 778-788.	5.0	23
47	Ultrasound-mediated fucoxanthin rich oil nanoemulsions stabilized by Î-carrageenan: Process optimization, bio-accessibility and cytotoxicity. Ultrasonics Sonochemistry, 2019, 55, 105-116.	8.2	49
48	A new alternative insight of nanoemulsion conjugated with Î-carrageenan for wound healing study in diabetic mice: In vitro and in vivo evaluation. European Journal of Pharmaceutical Sciences, 2019, 133, 236-250.	4.0	33
49	In vitro antitumor potential of astaxanthin nanoemulsion against cancer cells via mitochondrial mediated apoptosis. International Journal of Pharmaceutics, 2019, 560, 334-346.	5.2	38
50	Dependence of Photothermal Responses on Wavelengths. Journal of the Korean Physical Society, 2019, 74, 224-230.	0.7	2
51	Development of a reproducible in vivo laser-induced scar model for wound healing study and management. Biomedical Optics Express, 2019, 10, 1965.	2.9	7
52	Enhanced photothermal hemostasis using dual wavelengths in an in vivo leporine kidney model. Biomedical Optics Express, 2019, 10, 5198.	2.9	2
53	In vivo photoacoustic monitoring using 700-nm region Raman source for targeting Prussian blue nanoparticles in mouse tumor model. Scientific Reports, 2018, 8, 2000.	3.3	23
54	Comparative evaluations of hypertrophic scar formation in in vivo models. Lasers in Surgery and Medicine, 2018, 50, 661-668.	2.1	7

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55	Concentric photothermal coagulation with basket-integrated optical device for treatment of tracheal stenosis. <i>Journal of Biophotonics</i> , 2018, 11, e201700073.	2.3	9
56	Dual-wavelength-assisted thermal hemostasis for treatment of benign prostate hyperplasia. <i>Journal of Biophotonics</i> , 2018, 11, e201700192.	2.3	5
57	Feasibility Study of Cylindrically Diffusing 532 nm Wavelength for Treatment of Pancreatic Cancer. <i>Journal of the Korean Physical Society</i> , 2018, 73, 1619-1624.	0.7	0
58	Computational analysis of linear energy modulation for laser thermal coagulation. <i>Biomedical Optics Express</i> , 2018, 9, 2575.	2.9	10
59	Effect of spatial light distribution on the thermal response of vascular tissue. <i>Biomedical Optics Express</i> , 2018, 9, 3037.	2.9	9
60	Feasibility of LED-Assisted CMOS Camera: Contrast Estimation for Laser Tattoo Treatment. <i>Applied Sciences (Switzerland)</i> , 2018, 8, 661.	2.5	0
61	Fabrication of multifunctional chitosan-based nanocomposite film with rapid healing and antibacterial effect for wound management. <i>International Journal of Biological Macromolecules</i> , 2018, 118, 1713-1725.	7.5	50
62	Hypericin-assisted photodynamic therapy against anaplastic thyroid cancer. <i>Photodiagnosis and Photodynamic Therapy</i> , 2018, 24, 15-21.	2.6	43
63	Coating Chitosan Thin Shells: A Facile Technique to Improve Dispersion Stability of Magnetoliposomes. <i>Journal of Nanoscience and Nanotechnology</i> , 2018, 18, 583-590.	0.9	6
64	Astaxanthin-alpha tocopherol nanoemulsion formulation by emulsification methods: Investigation on anticancer, wound healing, and antibacterial effects. <i>Colloids and Surfaces B: Biointerfaces</i> , 2018, 172, 170-179.	5.0	53
65	Antibacterial activity of <i>Staphylococcus aureus</i> biofilm under combined exposure of glutaraldehyde, near-infrared light, and 405-nm laser. <i>PLoS ONE</i> , 2018, 13, e0202821.	2.5	13
66	Feasibility of photoacoustic evaluations on dual-thermal treatment of <i>ex vivo</i> bladder tumors. <i>Journal of Biophotonics</i> , 2017, 10, 577-588.	2.3	13
67	Real-time temperature monitoring with fiber Bragg grating sensor during diffuser-assisted laser-induced interstitial thermotherapy. <i>Journal of Biomedical Optics</i> , 2017, 22, 045008.	2.6	31
68	Integration of optical applicator with balloon catheter for photothermal treatment of biliary stricture. <i>Lasers in Surgery and Medicine</i> , 2017, 49, 781-786.	2.1	11
69	Temperature-monitored optical treatment for radial tissue expansion. <i>Lasers in Medical Science</i> , 2017, 32, 993-999.	2.1	3
70	Making unpolarized light sensitive to polarization-sensitive devices. <i>Applied Physics B: Lasers and Optics</i> , 2017, 123, 1.	2.2	0
71	Rabbit model of tracheal stenosis using cylindrical diffuser. <i>Lasers in Surgery and Medicine</i> , 2017, 49, 372-379.	2.1	10
72	Effect of multi-wavelength irradiation on color characterization with light-emitting diodes (LEDs). <i>Journal of the Korean Physical Society</i> , 2017, 70, 1011-1015.	0.7	0

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73	Endoluminal application of glass-capped diffuser for <i>ex vivo</i> endovenous photocoagulation. Journal of Biophotonics, 2017, 10, 997-1007.	2.3	4
74	Biocompatible astaxanthin as novel contrast agent for biomedical imaging. Journal of Biophotonics, 2017, 10, 1053-1061.	2.3	16
75	Doxorubicin-fucoidan-gold nanoparticles composite for dual-chemo-photothermal treatment on eye tumors. Oncotarget, 2017, 8, 113719-113733.	1.8	44
76	Spatial effect of conical angle on optical-thermal distribution for circumferential photocoagulation. Biomedical Optics Express, 2017, 8, 5663.	2.9	14
77	Polarimetric Fiber Vibration Sensor Based on Polarization-Diversified Loop Using Short Polarization-Maintaining Photonic Crystal Fiber. Journal of Nanoscience and Nanotechnology, 2017, 17, 8307-8312.	0.9	2
78	Multivariate Analysis of Laser-Induced Tissue Ablation: Ex Vivo Liver Testing. Applied Sciences (Switzerland), 2017, 7, 974.	2.5	4
79	Biocompatible astaxanthin as a novel marine-oriented agent for dual chemo-photothermal therapy. PLoS ONE, 2017, 12, e0174687.	2.5	18
80	3D printing-assisted fabrication of double-layered optical tissue phantoms for laser tattoo treatments. Lasers in Surgery and Medicine, 2016, 48, 392-399.	2.1	10
81	Effect of multiple-sweeping on ablation performance during <i>ex vivo</i> laser nephrectomy. Lasers in Surgery and Medicine, 2016, 48, 616-623.	2.1	4
82	Application of double-layered skin phantoms for optical flow imaging during laser tattoo treatments. Journal of the Korean Physical Society, 2016, 68, 1137-1141.	0.7	1
83	Effect of the pulse repetition rate on fiber-assisted tissue ablation. Journal of the Korean Physical Society, 2016, 69, 152-156.	0.7	1
84	Temperature feedback-controlled photothermal treatment with diffusing applicator: theoretical and experimental evaluations. Biomedical Optics Express, 2016, 7, 1932.	2.9	34
85	<i>Ex vivo</i> laser lipolysis assisted with radially diffusing optical applicator. Journal of Biomedical Optics, 2016, 21, 058001.	2.6	6
86	Bidirectional laser triggering in highly-resistive vanadium-dioxide thin films by using a 966-nm pump laser diode. Journal of the Korean Physical Society, 2016, 68, 323-328.	0.7	4
87	Enhanced coupling of optical energy during liquid-confined metal ablation. Journal of Applied Physics, 2015, 118, 153101.	2.5	1
88	Water content contribution in calculus phantom ablation during Q-switched Tm:YAG laser lithotripsy. Journal of Biomedical Optics, 2015, 20, 128001.	2.6	9
89	Intravascular ultrasonic photoacoustic (IVUP) endoscope with 2.2-mm diameter catheter for medical imaging. Computerized Medical Imaging and Graphics, 2015, 45, 57-62.	5.8	19
90	Circumferential irradiation for interstitial coagulation of urethral stricture. Optics Express, 2015, 23, 20829.	3.4	33

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91	Feasibility study on a short-pulsed IR wavelength for effective calculus fragmentation. Journal of the Korean Physical Society, 2015, 66, 1623-1626.	0.7	1
92	Memristive states in vanadium-dioxide-based planar devices stimulated by 966 nm infrared laser pulses. Japanese Journal of Applied Physics, 2015, 54, 102601.	1.5	6
93	Rabbit model of tracheal stenosis induced by prolonged endotracheal intubation using a segmented tube. International Journal of Pediatric Otorhinolaryngology, 2015, 79, 2384-2388.	1.0	17
94	Thermoelastic displacement measured by DP-OCT for detecting vulnerable plaques. Biomedical Optics Express, 2014, 5, 474.	2.9	2
95	Feasibility study on photoacoustic guidance for high-intensity focused ultrasound-induced hemostasis. Journal of Biomedical Optics, 2014, 19, 105010.	2.6	17
96	Characterization on ablation performance of various surgical fibers. Lasers in Medical Science, 2014, 29, 273-277.	2.1	5
97	Optical feedback-induced light modulation for fiber-based laser ablation. Lasers in Medical Science, 2014, 29, 1919-1925.	2.1	1
98	Investigation on safety aspects of forward light propagation during laser surgery. Lasers in Medical Science, 2013, 28, 1315-1321.	2.1	2
99	Computational analysis of endometrial photocoagulation with diffusing optical device. Biomedical Optics Express, 2013, 4, 2450.	2.9	8
100	Defining Optimal Laser-Fiber Sweeping Angle for Effective Tissue Vaporization Using 180-W 532-nm Lithium Triborate Laser. Journal of Endourology, 2012, 26, 313-317.	2.1	16
101	Enhanced photocoagulation with catheter-based diffusing optical device. Journal of Biomedical Optics, 2012, 17, 118001.	2.6	12
102	Photoselective Vaporization Prostatectomy: Experience With a Novel 180 W 532 nm Lithium Triborate Laser and Fiber Delivery System in Living Dogs. Journal of Urology, 2011, 185, 712-718.	0.4	56
103	In vitro investigation of wavelength-dependent tissue ablation: Laser prostatectomy between 532-nm and 2.01-μm. Lasers in Surgery and Medicine, 2010, 42, 237-244.	2.1	18
104	Laser vaporization of the prostate in vivo: Experience with the 150-W 980-nm diode laser in living canines. Lasers in Surgery and Medicine, 2010, 42, 736-742.	2.1	22
105	Quantitative Evaluation of High Power Effect on 532 nm Laser Vaporization of Bovine Prostate In Vitro. Journal of Urology, 2010, 184, 1211-1215.	0.4	18
106	The Effect of Laser-Fiber Sweeping Speed on the Efficiency of Photoselective Vaporization of the Prostate in an Ex Vivo Bovine Model. Journal of Endourology, 2009, 23, 1429-1435.	2.1	22
107	Greenlight Photoselective 120-Watt 532-nm Lithium Triborate Laser Vaporization Prostatectomy in Living Canines. Journal of Endourology, 2009, 23, 837-845.	2.1	40
108	Laser ablation in a liquid-confined environment using a nanosecond laser pulse. Journal of Applied Physics, 2008, 103, .	2.5	69

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109	Laser Vaporization of Bovine Prostate: A Quantitative Comparison of Potassium-Titanyl-Phosphate and Lithium Triborate Lasers. Journal of Urology, 2008, 180, 2675-2680.	0.4	58
110	Update On Erbium:YAG lithotripsy. AIP Conference Proceedings, 2007, , .	0.4	4
111	Enhancement of Bovine Bone Ablation Assisted by a Transparent Liquid Layer on a Target Surface. IEEE Journal of Quantum Electronics, 2006, 42, 633-642.	1.9	47
112	Urinary calculus fragmentation during Ho: YAG and Er:YAG lithotripsy. Lasers in Surgery and Medicine, 2006, 38, 39-51.	2.1	52
113	Dependence of calculus retropulsion on pulse duration during HO: YAG laser lithotripsy. Lasers in Surgery and Medicine, 2006, 38, 762-772.	2.1	104