Krishna K Mahato

List of Publications by Year
in descending order

97	1,415	304602	395590
papers	citations	22 h-index	33 g-index

97	97	97	1325
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Optical studies of Sm3+ doped oxyfluoroborate glass. Solid State Communications, 1998, 108, 671-676.	0.9	100
2	Principal component analysis and artificial neural network analysis of oral tissue fluorescence spectra: Classification of normal premalignant and malignant pathological conditions. Biopolymers, 2006, 82, 152-166.	1.2	61
3	Optical properties of Dy3+ doped in oxyfluoroborate glass. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2005, 61, 431-436.	2.0	60
4	Optical studies of Eu3+ doped oxyfluoroborate glass. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2004, 60, 979-985.	2.0	59
5	Investigation of structural and physico-chemical properties of rice starch with varied amylose content: A combined microscopy, spectroscopy, and thermal study. Food Hydrocolloids, 2022, 122, 107093.	5.6	59
6	Osteoradionecrosis (ORN) of the Mandible: A Laser Raman Spectroscopic Study. Applied Spectroscopy, 2003, 57, 1100-1116.	1.2	51
7	Optical pathology using oral tissue fluorescence spectra: classification by principal component analysis and k-means nearest neighbor analysis. Journal of Biomedical Optics, 2007, 12, 014028.	1.4	45
8	Red light emission from europium doped zinc sodium bismuth borate glasses. Physica B: Condensed Matter, 2017, 527, 35-43.	1.3	45
9	Spectroscopic and histological evaluation of wound healing progression following Low Level Laser Therapy (LLLT). Journal of Biophotonics, 2012, 5, 168-184.	1.1	43
10	Conformations of indan and 2-indanol: A combined study by UV laser spectroscopy and quantum chemistry calculation. Journal of Chemical Physics, 2003, 119, 2523-2530.	1.2	37
11	Polarization-resolved Stokes-Mueller imaging: a review of technology and applications. Lasers in Medical Science, 2019, 34, 1283-1293.	1.0	37
12	Design and Fabrication of Low-cost Microfluidic Channel for Biomedical Application. Scientific Reports, 2020, 10, 9215.	1.6	36
13	Photo-biomodulatory response of low-power laser irradiation on burn tissue repair in mice. Lasers in Medical Science, 2016, 31, 1741-1750.	1.0	35
14	Photoluminescence and thermally stimulated luminescence properties of Pr3+-doped zinc sodium bismuth borate glasses. Optical Materials, 2018, 84, 268-277.	1.7	35
15	The Molecular Mechanisms of Action of Photobiomodulation Against Neurodegenerative Diseases: A Systematic Review. Cellular and Molecular Neurobiology, 2022, 42, 955-971.	1.7	35
16	Autofluorescence of Normal, Benign, and Malignant Ovarian Tissues: A Pilot Study. Photomedicine and Laser Surgery, 2009, 27, 325-335.	2.1	29
17	Photoemission and thermoluminescence characteristics of Dy3+-doped zinc sodium bismuth borate glasses. Solid State Sciences, 2019, 89, 130-138.	1.5	28
18	Laser spectroscopic studies of Tb3+-doped oxyfluoroborate glass. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2000, 56, 2333-2340.	2.0	26

#	Article	IF	Citations
19	Influence of Heliumâ€Neon Laser Irradiation on Seed Germination In Vitro and Physicoâ€Biochemical Characters in Seedlings of Brinjal (Solanum melongena L.) var. Mattu Gulla. Photochemistry and Photobiology, 2012, 88, 1227-1235.	1.3	26
20	Objective Assessment of Endogenous Collagen In Vivo during Tissue Repair by Laser Induced Fluorescence. PLoS ONE, 2014, 9, e98609.	1.1	26
21	Development and Evaluation of Fiber Optic Probeâ€based Heliumâ€“Neon Lowâ€level Laser Therapy System for Tissue Regenerationâ€”An In Vivo Experimental Study. Photochemistry and Photobiology, 2010, 86, 1364-1372.	1.3	24
22	Effect of Laser Dose and Treatment Schedule on Excision Wound Healing in Diabetic Mice. Photochemistry and Photobiology, 2011, 87, 1433-1441.	1.3	24
23	The revolution of PDMS microfluidics in cellular biology. Critical Reviews in Biotechnology, 2023, 43, 465-483.	5.1	24
24	Observation of exciplex emission from the mixed dimer of naphthalene and 2-methoxynaphthalene: A laser-induced fluorescence study in supersonic jet. Journal of Chemical Physics, 2001, 114, 6107-6111.	1.2	23
25	Optical Studies of Pr3+ Doped Oxyfluoroborate Glass. Physica Status Solidi A, 1999, 174, 277-289.	1.7	22
26	Effects of high dose gamma irradiation on the optical properties of Eu3+ doped zinc sodium bismuth borate glasses for red LEDs. Journal of Luminescence, 2019, 207, 288-300.	1.5	21
27	Light emitting diodes (LEDs) in fluorescence-based analytical applications: a review. Applied Spectroscopy Reviews, 2022, 57, 1-38.	3.4	19
28	Autofluorescence of Breast Tissues: Evaluation of Discriminating Algorithms for Diagnosis of Normal, Benign, and Malignant Conditions. Photomedicine and Laser Surgery, 2009, 27, 241-252.	2.1	18
29	Photoacoustic spectroscopy of ovarian normal, benign, and malignant tissues: a pilot study. Journal of Biomedical Optics, 2011, 16, 067001.	1.4	18
30	Jet spectroscopy of van der Waals dimers of 1-methoxynaphthalene: A laser induced fluorescence study. Journal of Chemical Physics, 2001, 114, 8310-8315.	1.2	16
31	Responses of He-Ne laser irradiation on agronomical characters and chlorogenic acid content of brinjal (Solanum melongena L.) var. Mattu Gulla. Journal of Photochemistry and Photobiology B: Biology, 2016, 164, 182-190.	1.7	16
32	Serum protein profile study of normal and cervical cancer subjects by high performance liquid chromatography with laser-induced fluorescence. Journal of Biomedical Optics, 2008, 13, 054062.	1.4	14
33	Design and fabrication of screen printed microheater. Microsystem Technologies, 2018, 24, 3273-3281.	1.2	14
34	Development and characterization of portable smartphoneâ€based imaging device. Microscopy Research and Technique, 2020, 83, 1336-1344.	1.2	14
35	Photobiomodulation invigorating collagen deposition, proliferating cell nuclear antigen and Ki67 expression during dermal wound repair in mice. Lasers in Medical Science, 2022, 37, 171-180.	1.0	13
36	Exploring photoacoustic spectroscopy-based machine learning together with metabolomics to assess breast tumor progression in a xenograft model ex vivo. Laboratory Investigation, 2021, 101, 952-965.	1.7	13

#	Article	IF	Citations
37	Dynamics of l-tryptophan in aqueous solution by simultaneous laser induced fluorescence (LIF) and photoacoustic spectroscopy (PAS). Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2008, 70, 187-194.	2.0	12
38	Principal Component Analysis (PCA)-Based k-Nearest Neighbor (k-NN) Analysis of Colonic Mucosal Tissue Fluorescence Spectra. Photomedicine and Laser Surgery, 2009, 27, 659-668.	2.1	12
39	Laser induced autofluorescence in the monitoring of Î²-mercaptoethanol mediated photo induced proton coupled electron transfer in proteins. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2015, 149, 607-614.	2.0	12
40	In vitro culture responses, callus growth and organogenetic potential of brinjal (Solanum) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 627 Td 174, 333-341.	1.7	12
41	Laser-induced autofluorescence-based objective evaluation of burn tissue repair in mice. Lasers in Medical Science, 2018, 33, 699-707.	1.0	12
42	Heâ€“Ne laser accelerates seed germination by modulating growth hormones and reprogramming metabolism in brinjal. Scientific Reports, 2021, 11, 7948.	1.6	11
43	Monitoring breast tumor progression by photoacoustic measurements: a xenograft mice model study. Journal of Biomedical Optics, 2015, 20, 105002.	1.4	10
44	Microscopic and spectroscopic characterization of rice and corn starch. Microscopy Research and Technique, 2020, 83, 490-498.	1.2	10
45	Red laser-mediated alterations in seed germination, growth, pigments and withanolide content of Ashwagandha [Withania somnifera (L.) Dunal]. Journal of Photochemistry and Photobiology B: Biology, 2021, 216, 112144.	1.7	10
46	Effects of Hydrothermal Treatments on Physicochemical Properties and In Vitro Digestion of Starch. Food Biophysics, 2021, 16, 544-554.	1.4	10
47	Rotational Isomers of 1-Methoxynaphthalene:â€‰ A Combined Study by Ultraviolet Laser Spectroscopy in a Supersonic Jet and ab Initio Theoretical Calculation. Journal of Physical Chemistry A, 2002, 106, 12058-12063.	1.1	9
48	A pilot study on colonic mucosal tissues by fluorescence spectroscopy technique: Discrimination by principal component analysis (PCA) and artificial neural network (ANN) analysis. Journal of Chemometrics, 2008, 22, 408-416.	0.7	9
49	Prediction of absorption coefficients by pulsed laser induced photoacoustic measurements. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 127, 85-90.	2.0	9
50	Identification of protein secondary structures by laser induced autofluorescence: A study of urea and GnHCl induced protein denaturation. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2017, 174, 44-53.	2.0	9
51	Interrogation of an autofluorescenceâ€based method for protein fingerprinting. Journal of Biophotonics, 2018, 11, e201700393.	1.1	9
52	Effect of limited access dressing on hydroxyproline and enzymatic antioxidant status in nonhealing chronic ulcers. Indian Journal of Plastic Surgery, 2014, 47, 216-220.	0.2	8
53	Protein profile study of the cervical cancer using HPLC-LIF. , 2006, , .		7
54	Fluorescence and Photoacoustic Spectroscopy-Based Assessment of Mitochondrial Dysfunction in Oral Cancer Together with Machine Learning: A Pilot Study. Analytical Chemistry, 2021, 93, 16520-16527.	3.2	7

#	Article	IF	Citations
55	Excimer formation in the mixed dimers of naphthalene and 1-methoxynaphthalene in a supersonic jet. Physical Chemistry Chemical Physics, 2001, 3, 1813-1818.	1.3	6
56	Detection of mitochondrial dysfunction in vitro by laserâ€induced autofluorescence. Journal of Biophotonics, 2019, 12, e201900056.	1.1	6
57	Exciplex emission from the mixed dimer of naphthalene and 2-cyanonaphthalene in a supersonic jet. Physical Chemistry Chemical Physics, 2002, 4, 2162-2168.	1.3	5
58	Deciphering biophysical signatures for microbiological applications. Lasers in Medical Science, 2020, 35, 1493-1501.	1.0	5
59	Probing endogenous collagen by laserâ€induced autofluorescence in burn wound biopsies: A pilot study. Journal of Biophotonics, 2018, 11, e201700394.	1.1	4
60	Machine-learning-based classification of Stokes-Mueller polarization images for tissue characterization. Journal of Physics: Conference Series, 2021, 1859, 012045.	0.3	4
61	Spectroscopic methods for assessment of hand sanitizers. Chemical Papers, 2022, , 1-12.	1.0	4
62	Probing nonenzymatic glycation of proteins by deep ultraviolet light emitting diode induced autofluorescence. International Journal of Biological Macromolecules, 2022, 213, 279-296.	3.6	4
63	Excimer formation in jet-cooled 2-methoxynaphthalene clusters. Chemical Physics Letters, 2001, 341, 115-121.	1.2	3
64	Frequency upconversion involving quartets of ions in a Pr3+/Eu3+ oxyfluoroborate glass. Chemical Physics Letters, 2005, 414, 222-225.	1.2	3
65	Protein profile study of breast cancer tissues using HPLC-LIF: a pilot study. , 2007, , .		3
66	A comprehensive review on LED-induced fluorescence in diagnostic pathology. Biosensors and Bioelectronics, 2022, 209, 114230.	5.3	3
67	Development and evaluation of an optical fibre-based helium-neon laser irradiation system for tissue regeneration: A pilot study. Pramana - Journal of Physics, 2010, 75, 1287-1293.	0.9	2
68	Photoacoustic spectroscopy based investigatory approach to discriminate breast cancer from normal: a pilot study. , 2016, , .		2
69	Effects of 7.5â€¯MeV electron beam irradiation on optical properties of Eu3+-doped zinc sodium bismuth borate glasses. Nuclear Instruments & Methods in Physics Research B, 2019, 446, 5-9.	0.6	2
70	Detecting Breast Tumor by Photoacoustic Spectroscopy Integrated Machine Learning: A Comparison of Statistical and Algorithm Based Features. , 2021, , .		2
71	Preparation and characterization of citric acid crosslinked starch based bioplastic. Materials Today: Proceedings, 2022, 55, 26-30.	0.9	2
72	Photobiomodulatory effects of He-Ne laser on excision wounds. , 2011, , .		1

#	Article	IF	Citations
73	Autofluorescence of Osteoporotic Mouse Femur Bones: A Pilot Study. Photomedicine and Laser Surgery, 2011, 29, 227-232.	2.1	1
74	Non-invasive,in vivofluorescence technique as an objective tool for monitoring wound healing following low level laser therapy. , 2013, , .		1
75	Photoacoustic spectroscopy in the monitoring of breast tumor development: a pre-clinical study. , 2014, , .		1
76	Does ozone enhance the remineralizing potential of nanohydroxyapatite on artificially demineralized enamel? A laser induced fluorescence study. , 2014, , .		1
77	Photoacoustic spectroscopy based evaluation of breast cancer condition. , 2015, , .		1
78	Low power laser irradiation stimulates cell proliferation via proliferating cell nuclear antigen and Ki-67 expression during tissue repair. , 2015, , .		1
79	An overview of conventional and fluorescence spectroscopy tools in oral cancer diagnosis. Lasers in Dental Science, 2020, 4, 167-179.	0.3	1
80	Purity Analysis of Adulterated Vegetable Oils by Raman and FTIR Spectroscopy. , 2018, , .		1
81	Advanced microscopy techniques for revealing molecular structure of starch granules. , 2017, , .		1
82	DESIGN AND SIMULATION OF PARALLEL MICROHEATER. Frontiers in Heat and Mass Transfer, 0, 10, .	0.1	1
83	Protein profile study of Pap smear and tissue of cervix by high performance liquid chromatography: laser induced fluorescence. , 2007, , .		0
84	Optical properties of Eu2O3 doped lead fluoroborate glass. , 2012, , .		0
85	Alterations in cell migration and cell viability of wounded human skin fibroblasts following visible red light exposure. , 2014, , .		0
86	Prognostic prospective of laser induced fluorescence as an objective tool to evaluate collagen deposition in thermal wounds: anex vivostudy. , 2014, , .		0
87	Efficacy of multiple exposure with low level He-Ne laser dose on acute wound healing: a pre-clinical study. Proceedings of SPIE, 2014, , .	0.8	0
88	Nature of autofluorescence in human serum albumin under its native, unfolding and digested forms. , 2014, , .		0
89	Predictive potential of photoacoustic spectroscopy in breast tumor detection based on xenograft serum profiles. , 2015, , .		0
90	Autofluorescence based visualization of proteins from unstained native-PAGE. Proceedings of SPIE, 2015, , .	0.8	0

#	Article	IF	Citations
91	Regulation of cellular marker modulated upon irradiation of low power laser light in burn injured mice. , 2016, , .		0
92	Fluorescence based assessment of SDS induced hydrophobic collapse in globular proteins. Proceedings of SPIE, 2016, , .	0.8	0
93	Photobiomodulatory effects of He- Ne laser on Wounded Human Skin Fibroblasts. , 2016, , .		0
94	Photo-bio modulatory response of platelets to low power laser - A pilot study. , 2017, , .		0
95	Development of Four Channel Based Linear Stokes-Mueller Polarization Microscope For Tissue Characterization. , 2018, , .		0
96	Assessing Mitochondria by Laser Induced Autofluorescence and Photoacoustic Measurements: A Preliminary In Vitro Study. , 2019, , .		0
97	Action of He-Ne laser on wounded human skin fibroblast cells. , 2019, , .		0