

Nirmal Mazumder

List of Publications by Year in descending order

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Version: 2024-02-01

80
papers

1,363
citations

377584

21
h-index

445137

33
g-index

91
all docs

91
docs citations

91
times ranked

1380
citing authors

#	ARTICLE	IF	CITATIONS
1	An insight into the physicochemical characterisation of starch-lipid complex and its importance in food industry. Food Reviews International, 2023, 39, 4198-4212.	4.3	4
2	The revolution of PDMS microfluidics in cellular biology. Critical Reviews in Biotechnology, 2023, 43, 465-483.	5.1	24
3	Integrated computational approach toward discovery of multi-targeted natural products from Thumbai (<i>Leucas aspera</i>) for attuning NKT cells. Journal of Biomolecular Structure and Dynamics, 2022, 40, 2893-2907.	2.0	5
4	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
5	Nosocomial Infections and Role of Nanotechnology. Bioengineering, 2022, 9, 51.	1.6	18
6	An insight into microscopy and analytical techniques for morphological, structural, chemical, and thermal characterization of cellulose. Microscopy Research and Technique, 2022, 85, 1990-2015.	1.2	14
7	Gamma radiation as a modifier of starch " Physicochemical perspective. Current Research in Food Science, 2022, 5, 141-149.	2.7	22
8	An Insight into the Gelatinization Properties Influencing the Modified Starches Used in Food Industry: A review. Food and Bioprocess Technology, 2022, 15, 1195-1223.	2.6	58
9	Investigation of physico-chemical properties of native and gamma irradiated starches. Materials Today: Proceedings, 2022, 55, 12-16.	0.9	3
10	Preparation and characterization of citric acid crosslinked starch based bioplastic. Materials Today: Proceedings, 2022, 55, 26-30.	0.9	2
11	Editorial: Label Free Polarization Resolved Optical Microscopy for Biomedical Applications. Frontiers in Physics, 2022, 10, .	1.0	0
12	Deep learning-based image processing in optical microscopy. Biophysical Reviews, 2022, 14, 463-481.	1.5	26
13	Spectroscopic methods for assessment of hand sanitizers. Chemical Papers, 2022, , 1-12.	1.0	4
14	Two Photon Fluorescence Lifetime Imaging of Reduced Nicotinamide Adenine Dinucleotide in Brain Research. , 2022, , 23-38.		1
15	Enhancement of dysprosium oxide doped zinc alumino borosilicate glasses in thermal, optical and luminescence domain for solid state lighting application. Optical Materials, 2022, 128, 112447.	1.7	6
16	Synthesis and characterization of Sm ³⁺ doped BaO-ZnO-LiF-B ₂ O ₃ glass system for reddish-orange light generation with high color purity. Optics and Laser Technology, 2022, 155, 108359.	2.2	6
17	Types of spectroscopy and microscopy techniques for cancer diagnosis: a review. Lasers in Medical Science, 2022, 37, 3067-3084.	1.0	7
18	Stokes polarimetry-based second harmonic generation microscopy for collagen and skeletal muscle fiber characterization. Lasers in Medical Science, 2021, 36, 1161-1167.	1.0	6

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19	Photodynamic therapy to control microbial biofilms. <i>Photodiagnosis and Photodynamic Therapy</i> , 2021, 33, 102090.	1.3	56
20	Structure and Morphological Properties of Starch Macromolecule Using Biophysical Techniques. <i>Starch/Staerke</i> , 2021, 73, .	1.1	19
21	Energy transfer and luminescence study of Dy ³⁺ doped zinc-aluminoborosilicate glasses for white light emission. <i>Ceramics International</i> , 2021, 47, 598-610.	2.3	40
22	Elucidating Methods for Isolation and Quantification of Exosomes: A Review. <i>Molecular Biotechnology</i> , 2021, 63, 249-266.	1.3	77
23	Recent trends in smartphone-based detection for biomedical applications: a review. <i>Analytical and Bioanalytical Chemistry</i> , 2021, 413, 2389-2406.	1.9	93
24	Improving the Way We See: Adaptive Optics Based Optical Microscopy for Deep-Tissue Imaging. <i>Frontiers in Physics</i> , 2021, 9, .	1.0	3
25	Label-Free Characterization of Collagen Crosslinking in Bone-Engineered Materials Using Nonlinear Optical Microscopy. <i>Microscopy and Microanalysis</i> , 2021, 27, 587-597.	0.2	6
26	Design and development of smartphone-based imaging platform using electroluminescence illumination. <i>Results in Optics</i> , 2021, 3, 100070.	0.9	1
27	Brief review on repurposed drugs and vaccines for possible treatment of COVID-19. <i>European Journal of Pharmacology</i> , 2021, 898, 173977.	1.7	29
28	Label-free multimodal nonlinear optical microscopy for biomedical applications. <i>Journal of Applied Physics</i> , 2021, 129, .	1.1	12
29	Advances in nonlinear optical microscopy techniques for in vivo and in vitro neuroimaging. <i>Biophysical Reviews</i> , 2021, 13, 1199-1217.	1.5	9
30	Effects of Hydrothermal Treatments on Physicochemical Properties and In Vitro Digestion of Starch. <i>Food Biophysics</i> , 2021, 16, 544-554.	1.4	10
31	Photoluminescence studies on dysprosium doped glass ceramics containing $\hat{\Gamma}_2$ -Na ₃ AlF ₆ crystalline phase for white light emission. <i>Materials Chemistry and Physics</i> , 2021, 274, 125157.	2.0	5
32	An insight on advances and applications of 3d bioprinting: A review. <i>Bioprinting</i> , 2021, 24, e00176.	2.9	29
33	Analysing the Oxidation Status of Mustard Oils using Spectroscopic Methods: a Preliminary Study. , 2021, , .		3
34	Advanced Microscopic Visualization for Structural Characterization of Cellulose Extracted from <i>Saccharum Spontaneum</i> (Kohua Bon) of Assam, India. , 2021, , .		0
35	Morphological and Thermal Characterization of Starch- Based Elastomers. , 2021, , .		0
36	A review of career devoted to Biophotonics – In memoriam to Ekaterina Borisova (1978–2021). <i>Journal of Biomedical Photonics and Engineering</i> , 2021, 7, 040101.	0.4	0

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37	Advances in adaptive opticsâ€‘based two-photon fluorescence microscopy for brain imaging. Lasers in Medical Science, 2020, 35, 317-328.	1.0	17
38	Microscopic and spectroscopic characterization of rice and corn starch. Microscopy Research and Technique, 2020, 83, 490-498.	1.2	10
39	Deciphering biophysical signatures for microbiological applications. Lasers in Medical Science, 2020, 35, 1493-1501.	1.0	5
40	Light emitting diode (LED) based fluorescence microscopy for tuberculosis detection: a review. Lasers in Medical Science, 2020, 35, 1431-1437.	1.0	13
41	Development and characterization of portable smartphoneâ€‘based imaging device. Microscopy Research and Technique, 2020, 83, 1336-1344.	1.2	14
42	Optical spectroscopy and microscopy techniques for assessment of neurological diseases. Applied Spectroscopy Reviews, 2020, , 1-40.	3.4	2
43	Elucidating the microscopic and computational techniques to study the structure and pathology of <scp>SARSâ€‘CoVs</scp>. Microscopy Research and Technique, 2020, 83, 1623-1638.	1.2	12
44	An Insight into the Ultrastructural and Physiochemical Characterization of Potato Starch: a Review. American Journal of Potato Research, 2020, 97, 464-476.	0.5	36
45	Advanced microscopy techniques for revealing molecular structure of starch granules. Biophysical Reviews, 2020, 12, 105-122.	1.5	35
46	Microscopic and Spectroscopic Characterization of Elastomer for Microfluidics Application. , 2020, , .		1
47	Structural characterisation of North-east Indian rice starch using Second Harmonic Generation (SHG) microscopy. , 2020, , .		0
48	Characterization of Biological Tissue using Four-channel based Stokes-Mueller Polarization Microscope. , 2020, , .		1
49	Recent trends in two-photon auto-fluorescence lifetime imaging (2P-FLIM) and its biomedical applications. Biomedical Engineering Letters, 2019, 9, 293-310.	2.1	21
50	Label-Free Non-linear Multimodal Optical Microscopyâ€‘Basics, Development, and Applications. Frontiers in Physics, 2019, 7, .	1.0	34
51	Enantiomeric Recognition and Separation by Chiral Nanoparticles. Molecules, 2019, 24, 1007.	1.7	72
52	Polarization-resolved Stokes-Mueller imaging: a review of technology and applications. Lasers in Medical Science, 2019, 34, 1283-1293.	1.0	37
53	Revealing molecular structure of starch with Stokes-vector based second harmonic generation microscopy. Journal of Optics (India), 2018, 47, 40-46.	0.8	7
54	Structural and chemical characterization of rice and potato starch granules using microscopy and spectroscopy. Microscopy Research and Technique, 2018, 81, 1533-1540.	1.2	23

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55	Types of advanced optical microscopy techniques for breast cancer research: a review. <i>Lasers in Medical Science</i> , 2018, 33, 1849-1858.	1.0	15
56	Purity Analysis of Adulterated Vegetable Oils by Raman and FTIR Spectroscopy. , 2018, , .		1
57	Development of Four Channel Based Linear Stokes-Mueller Polarization Microscope For Tissue Characterization. , 2018, , .		0
58	Polarization resolved second harmonic microscopy (Conference Presentation). , 2018, , .		0
59	Mueller matrix signature in advanced fluorescence microscopy imaging. <i>Journal of Optics (United Kingdom)</i> 11, 0784314. DOI: 10.1088/1751-8751/aa9118	1.0	18
60	Polarization resolved second harmonic microscopy. <i>Methods</i> , 2017, 128, 105-118.	1.9	27
61	Investigating starch gelatinization through Stokes vector resolved second harmonic generation microscopy. <i>Scientific Reports</i> , 2017, 7, 45816.	1.6	16
62	Advanced microscopy techniques for revealing molecular structure of starch granules. , 2017, , .		1
63	Label Free Linear and Non-Linear Excitation Nanoscopy. <i>Biophysical Journal</i> , 2016, 110, 482a.	0.2	0
64	Converging and Correlative Technologies for Optical Nanoscopy. <i>Biophysical Journal</i> , 2016, 110, 4a.	0.2	0
65	Revealing Starch Denaturation with Stokes vector based SHG microscopy. , 2016, , .		0
66	Stokes vector based Second Harmonic Generation Microscopy reveals molecular structure. , 2016, , .		0
67	FRET Microscopy: Basics, Issues and Advantages of FLIM-FRET Imaging. <i>Springer Series in Chemical Physics</i> , 2015, , 249-276.	0.2	23
68	Cellular Autofluorescence Detection Through FLIM/FRET Microscopy. <i>Topics in Applied Physics</i> , 2015, , 471-482.	0.4	8
69	In pixel analysis of molecular structure with Stokes vector resolved second harmonic generation microscopy. <i>Proceedings of SPIE</i> , 2014, , .	0.8	2
70	Structural and optical characterization of fresh water diatoms (<i>Cyclotella</i> sp.): nature's nanoporous silica manufacturing plant. , 2014, , .		1
71	Revealing molecular structure and orientation with Stokes vector resolved second harmonic generation microscopy. <i>Methods</i> , 2014, 66, 237-245.	1.9	27
72	7-Ketocholesterol induces P-glycoprotein through PI3K/mTOR signaling in hepatoma cells. <i>Biochemical Pharmacology</i> , 2013, 86, 548-560.	2.0	40

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73	Stokes vector based polarization resolved second harmonic microscopy of starch granules. Biomedical Optics Express, 2013, 4, 538.	1.5	48
74	Fluorescence lifetime imaging with pulsed diode laser enabled stimulated emission. Proceedings of SPIE, 2013, , .	0.8	0
75	Imaging molecular structure with Stokes-polarimeter based second harmonic generation microscopy. , 2013, , .		2
76	Fluorescence Lifetime Imaging of Alterations to Cellular Metabolism by Domain 2 of the Hepatitis C Virus Core Protein. PLoS ONE, 2013, 8, e66738.	1.1	32
77	Revealing Molecular Structure and Orientation with Stokes Vector Resolved Second Harmonic Generation Microscopy. , 2013, , .		1
78	Polarization-resolved second harmonic generation microscopy with a four-channel Stokes-polarimeter. Optics Express, 2012, 20, 14090.	1.7	56
79	Stokes vector formalism based second harmonic generation microscopy. , 2012, , .		1
80	Luminescence studies of fresh water diatom frustules. Indian Journal of Physics, 2010, 84, 665-669.	0.9	25