

Santhosh Chidangil

List of Publications by Year in descending order

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papers

1,542
citations

361045

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h-index

377514

34
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99
all docs

99
docs citations

99
times ranked

1635
citing authors

#	ARTICLE	IF	CITATIONS
1	Raman Tweezers Spectroscopy of Live, Single Red and White Blood Cells. PLoS ONE, 2010, 5, e10427.	1.1	134
2	Measurements of plasma temperature and electron density in laser-induced copper plasma by time-resolved spectroscopy of neutral atom and ion emissions. Pramana - Journal of Physics, 2010, 74, 983-993.	0.9	117
3	Recent Progress in Fabricating Superaerophobic and Superaerophilic Surfaces. Advanced Materials Interfaces, 2017, 4, 1601088.	1.9	96
4	Optical technologies for the detection of viruses like COVID-19: Progress and prospects. Biosensors and Bioelectronics, 2021, 178, 113004.	5.3	71
5	Flexible superhydrophobic SERS substrates fabricated by in situ reduction of Ag on femtosecond laser-written hierarchical surfaces. Sensors and Actuators B: Chemical, 2018, 272, 485-493.	4.0	63
6	Self-cleaning superhydrophobic surfaces with underwater superaerophobicity. Materials and Design, 2016, 100, 8-18.	3.3	51
7	Calibration-free laser-induced breakdown spectroscopy for quantitative elemental analysis of materials. Pramana - Journal of Physics, 2012, 79, 299-310.	0.9	48
8	A Micro-Raman Study of Live, Single Red Blood Cells (RBCs) Treated with AgNO ₃ Nanoparticles. PLoS ONE, 2014, 9, e103493.	1.1	40
9	Microwave solution route to ceramic ZnAl ₂ O ₄ nanoparticles in 10 minutes: inversion and photophysical changes with thermal history. New Journal of Chemistry, 2017, 41, 5420-5428.	1.4	37
10	Performance evaluation of Laser Induced Breakdown Spectroscopy (LIBS) for quantitative analysis of rare earth elements in phosphate glasses. Optical Materials, 2016, 52, 32-37.	1.7	31
11	A study on air bubble wetting: Role of surface wettability, surface tension, and ionic surfactants. Applied Surface Science, 2017, 410, 117-125.	3.1	29
12	A micro-Raman and chemometric study of urinary tract infection-causing bacterial pathogens in mixed cultures. Analytical and Bioanalytical Chemistry, 2019, 411, 3165-3177.	1.9	29
13	Cr-doped ZnAl ₂ O ₄ : Microwave solution route for ceramic nanoparticles from metalorganic complexes in minutes. Journal of the American Ceramic Society, 2018, 101, 800-811.	1.9	27
14	Micro-Raman Spectroscopy of Silver Nanoparticle Induced Stress on Optically-Trapped Stem Cells. PLoS ONE, 2012, 7, e35075.	1.1	26
15	Probing Nanoparticle-Cell Interaction Using Micro-Raman Spectroscopy: Silver and Gold Nanoparticle-Induced Stress Effects on Optically Trapped Live Red Blood Cells. ACS Omega, 2020, 5, 1439-1447.	1.6	26
16	Probing differentiation in cancer cell lines by single-cell micro-Raman spectroscopy. Journal of Biomedical Optics, 2015, 20, 085001.	1.4	24
17	Hybrid LIBS-Raman-LIF systems for multi-modal spectroscopic applications: a topical review. Applied Spectroscopy Reviews, 2021, 56, 463-491.	3.4	23
18	Breath analysis for the screening and diagnosis of diseases. Applied Spectroscopy Reviews, 2021, 56, 702-732.	3.4	23

#	ARTICLE	IF	CITATIONS
19	Dual functionalized, stable and water dispersible CdTe quantum dots: Facile, one-pot aqueous synthesis, optical tuning and energy transfer applications. <i>Materials Research Bulletin</i> , 2019, 110, 57-66.	2.7	22
20	Biomedical and environmental applications of laser-induced breakdown spectroscopy. <i>Pramana - Journal of Physics</i> , 2014, 82, 397-401.	0.9	21
21	Sensitive detection of mercury using the fluorescence resonance energy transfer between CdTe/CdS quantum dots and Rhodamine 6G. <i>Journal of Nanoparticle Research</i> , 2018, 20, 1.	0.8	20
22	Normal saline-induced deoxygenation of red blood cells probed by optical tweezers combined with the micro-Raman technique. <i>RSC Advances</i> , 2019, 9, 7878-7884.	1.7	20
23	Salivary protein markers: a noninvasive protein profile-based method for the early diagnosis of oral premalignancy and malignancy. <i>Journal of Biomedical Optics</i> , 2013, 18, 101317.	1.4	19
24	Deposition and alignment of cells on laser-patterned quartz. <i>Applied Surface Science</i> , 2014, 305, 375-381.	3.1	19
25	Synthesis and Characterization of Reduced Graphene Oxide for Supercapacitor Application with a Biodegradable Electrolyte. <i>Journal of Electronic Materials</i> , 2020, 49, 985-994.	1.0	19
26	Suppression of ultrafast supercontinuum generation in a salivary protein. <i>Journal of Biomedical Optics</i> , 2007, 12, 020510.	1.4	18
27	Evaluation of high-performance liquid chromatography laser-induced fluorescence for serum protein profiling for early diagnosis of oral cancer. <i>Journal of Biomedical Optics</i> , 2010, 15, 067007.	1.4	18
28	Post annealing induced manipulation of phase and upconversion luminescence of Cr ³⁺ doped NaYF ₄ :Yb,Er crystals. <i>RSC Advances</i> , 2019, 9, 9364-9372.	1.7	18
29	A review on human body fluids for the diagnosis of viral infections: scope for rapid detection of COVID-19. <i>Expert Review of Molecular Diagnostics</i> , 2021, 21, 31-42.	1.5	18
30	Role of cation- π interactions in single chain α -helix proteins. <i>Journal of Theoretical Biology</i> , 2008, 250, 655-662.	0.8	17
31	Effect of infrared light on live blood cells: Role of β -carotene. <i>Journal of Photochemistry and Photobiology B: Biology</i> , 2017, 171, 104-116.	1.7	16
32	Laser-Assisted Tailoring of Surface Wettability - Fundamentals and Applications: A Critical Review. <i>Reviews of Adhesion and Adhesives</i> , 2019, 7, 331-366.	3.3	16
33	Minireview: Laser-Induced Formation of Microbubbles—Biomedical Implications. <i>Langmuir</i> , 2019, 35, 10139-10150.	1.6	15
34	Post-COVID syndrome screening through breath analysis using electronic nose technology. <i>Analytical and Bioanalytical Chemistry</i> , 2022, 414, 3617-3624.	1.9	15
35	Serum protein profile study of normal and cervical cancer subjects by high performance liquid chromatography with laser-induced fluorescence. <i>Journal of Biomedical Optics</i> , 2008, 13, 054062.	1.4	14
36	Protein profile analysis of cellular samples from the cervix for the objective diagnosis of cervical cancer using HPLC-LIF. <i>Journal of Chromatography B: Analytical Technologies in the Biomedical and Life Sciences</i> , 2010, 878, 3225-3230.	1.2	14

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37	A broadband optical pH sensor using upconversion luminescence. Journal of Materials Chemistry C, 2021, 9, 8606-8614.	2.7	14
38	Human tear fluid analysis for clinical applications: progress and prospects. Expert Review of Molecular Diagnostics, 2021, 21, 767-787.	1.5	14
39	Refractive index and formaldehyde sensing with silver nanocubes. RSC Advances, 2021, 11, 8042-8050.	1.7	14
40	Recent Progress in the Fabrication and Optical Properties of Nanoporous Anodic Alumina. Nanomaterials, 2022, 12, 444.	1.9	14
41	A laser Raman tweezers study of eryptosis. Journal of Raman Spectroscopy, 2018, 49, 1155-1164.	1.2	13
42	Facile fabrication of plasmonic wettability contrast paper surface for droplet array-based SERS sensing. Applied Surface Science, 2022, 571, 151188.	3.1	13
43	Ultra-sensitive high performance liquid chromatography-laser-induced fluorescence based proteomics for clinical applications. Journal of Proteomics, 2015, 127, 202-210.	1.2	12
44	Refractive index sensitivity of triangular Ag nanoplates in solution and on glass substrate. Sensors and Actuators A: Physical, 2020, 305, 111948.	2.0	12
45	UV laser-based photoacoustic breath analysis for the diagnosis of respiratory diseases: Detection of Asthma. Sensors and Actuators B: Chemical, 2022, 370, 132367.	4.0	12
46	Real-time and rapid detection of <i>Salmonella</i> Typhimurium using an inexpensive lab-built surface plasmon resonance setup. Laser Physics Letters, 2018, 15, 075701.	0.6	11
47	Photonics of human saliva: potential optical methods for the screening of abnormal health conditions and infections. Biophysical Reviews, 2021, 13, 359-385.	1.5	11
48	Micro-Raman spectroscopy study of blood samples from myocardial infarction patients. Lasers in Medical Science, 2022, 37, 3451-3460.	1.0	10
49	Application of HPLC Combined with Laser Induced Fluorescence for Protein Profile Analysis of Tissue Homogenates in Cervical Cancer. Scientific World Journal, The, 2012, 2012, 1-7.	0.8	9
50	Surface-enhanced Raman spectroscopy study of red blood cells and platelets. Journal of Biomolecular Structure and Dynamics, 2019, 37, 1090-1098.	2.0	9
51	Optical tweezers combined with micro-Raman investigation of alcohol-induced changes on single, live red blood cells in blood plasma. Journal of Raman Spectroscopy, 2019, 50, 1367-1374.	1.2	8
52	Red blood cells under varying extracellular tonicity conditions: an optical tweezers combined with micro-Raman study. Biomedical Physics and Engineering Express, 2020, 6, 015036.	0.6	8
53	Optical Biopsy and Optical Pathology: Affordable Health Care Under Low-Resource Settings. Journal of Biomedical Photonics and Engineering, 2020, 6, .	0.4	8
54	Microfabrication of Fresnel zone plates by laser induced solid ablation. Journal of Optics (United) Tj ETQq0 0 0 rgBT ₁ /Overlock, 10 Tf 50 6	1.0	7

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55	Laser Raman tweezer spectroscopy to explore the bisphenol A-induced changes in human erythrocytes. RSC Advances, 2019, 9, 15933-15940.	1.7	7
56	Laser induced graphene with biopolymer electrolyte for supercapacitor applications. Materials Today: Proceedings, 2022, 48, 365-370.	0.9	7
57	Optical Trapping and Micro-Raman Spectroscopy of Functional Red Blood Cells Using Vortex Beam for Cell Membrane Studies. Analytical Chemistry, 2021, 93, 5484-5493.	3.2	7
58	Laser induced fluorescence of cervical tissues: an in-vitro study for the diagnosis of cervical cancer from the cervicitis. Journal of Optics (United Kingdom), 2022, 24, 054002.	1.0	7
59	Development and performance evaluation of a multi-modal optical spectroscopic sensor. Journal of Analytical Atomic Spectrometry, 2021, 36, 2391-2403.	1.6	6
60	Laser-induced assembly of biological cells and colloids onto a candle soot coated substrate. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2021, 616, 126357.	2.3	6
61	Refractive index sensitivity of Au nanostructures in solution and on the substrate. Journal of Materials Science: Materials in Electronics, 2022, 33, 4011-4024.	1.1	6
62	Optical Interferometric Properties of Porous Anodic Alumina Nanostructures. Materials Today: Proceedings, 2016, 3, 2443-2449.	0.9	5
63	Luminomagnetic Nd 3+ doped fluorapatite coated Fe 3 O 4 nanostructures for biomedical applications. Journal of the American Ceramic Society, 2019, 102, 2558-2568.	1.9	5
64	Micro-Raman Spectroscopy Analysis of Optically Trapped Erythrocytes in Jaundice. Frontiers in Physiology, 2020, 11, 821.	1.3	5
65	Development of a spectroscopic technique that enables the saliva based detection of COVID-19 at safe distances. Results in Chemistry, 2021, 3, 100210.	0.9	5
66	Microwave-assisted synthesis and upconversion luminescence of NaYF4:Yb, Gd, Er and NaYF4:Yb, Gd, Tm nanorods. Methods and Applications in Fluorescence, 2022, 10, 024004.	1.1	5
67	Optical Screening of Oral Cancer: Technology for Emerging Markets. Annual International Conference of the IEEE Engineering in Medicine and Biology Society, 2007, 2007, 2807-10.	0.5	4
68	A Comparison of Protein Profiles of Cervical Tissue Homogenate, Exfoliated Cells from Cervix and Serum in Normal and Cervical Malignancy Conditions. Journal of Chromatographic Science, 2015, 53, 167-176.	0.7	4
69	Effect of nucleants in photothermally assisted crystallization. Photochemical and Photobiological Sciences, 2017, 16, 870-882.	1.6	4
70	Effect of biocompatible nucleants in rapid crystallization of natural amino acids using a CW Nd:YAG laser. Scientific Reports, 2018, 8, 16018.	1.6	4
71	Single cell spectroscopy of red blood cells in intravenous crystalloid fluids. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 257, 119726.	2.0	4
72	Fluorescence-based detection of mercury ions using carbon dots: role of synthesis route. Materials Technology, 2022, 37, 2893-2906.	1.5	4

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73	Femtosecond laser induced forward transfer of indium thin films. <i>Laser and Particle Beams</i> , 2014, 32, 55-61.	0.4	3
74	Micro-patterning of Indium thin film for generation of micron and submicron particles using femtosecond laser-induced forward transfer. <i>Laser and Particle Beams</i> , 2015, 33, 449-454.	0.4	3
75	Human red blood cell behaviour in hydroxyethyl starch: probed by single cell spectroscopy. <i>RSC Advances</i> , 2020, 10, 31453-31462.	1.7	3
76	A chemometric study combined with spectroscopy for the quantification of secondary structure of flagellar-associated protein 174 (FAP174). <i>Journal of Chemometrics</i> , 2020, 34, e3221.	0.7	3
77	A micro-Raman spectroscopy study of inflammatory condition of human cervix: Probing of Tissues and blood plasma samples. <i>Photodiagnosis and Photodynamic Therapy</i> , 2022, , 102948.	1.3	3
78	Structural features of FAP174, a MYCBP-1 orthologue from <i>Chlamydomonas reinhardtii</i> , revealed by computational and experimental analyses. <i>RSC Advances</i> , 2017, 7, 51391-51402.	1.7	2
79	Strong Strand Breaks in DNA Induced by Thermal Energy Particles and Their Electrostatic Inhibition by Nanostructures. <i>Journal of Physical Chemistry A</i> , 2019, 123, 3241-3247.	1.1	2
80	Plasma spectroscopy + chemometrics: An ideal approach for the spectrochemical analysis of iron phosphate glass samples. <i>Journal of Chemometrics</i> , 2020, 34, e3310.	0.7	2
81	Thermal Energy Electrons and OH-Radicals Induce Strand Breaks in DNA in an Aqueous Environment: Some Salts Offer Protection Against Strand Breaks. <i>Journal of Physical Chemistry A</i> , 2020, 124, 1508-1514.	1.1	2
82	Laser Induced Fluorescence Spectroscopy of Soft Tissues of the Oral Cavity. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	1
83	Objective Diagnosis of Cervical Cancer by Tissue Protein Profile Analysis. <i>AIP Conference Proceedings</i> , 2011, , .	0.3	1
84	Raman tweezers spectroscopy study of free radical induced oxidative stress leading to eryptosis. , 2016, , .		1
85	Influence of static electric field on Raman polarizability of optically trapped polystyrene beads. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2020, 228, 117726.	2.0	1
86	Review of synthesis and sensing applications of anisotropic silver and gold nanostructures. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2021, 39, 050801.	0.6	1
87	Conditions Leading to Eryptosis in Erythrocytes: A Raman Tweezers Study. , 2016, , .		1
88	Facile fabrication of superhydrophobic gold loaded nanoporous anodic alumina as surface-enhanced Raman spectroscopy substrates. <i>Journal of Optics (United Kingdom)</i> , 2022, 24, 044002.	1.0	1
89	Protein profile study of clinical samples using laser induced fluorescence as the detection method: case of malignant and normal cervical tissues. <i>Proceedings of SPIE</i> , 2009, , .	0.8	0
90	Surface Enhanced Fluorescence of Tryptophan by Silver-Nano-particles. , 2011, , .		0

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91	Early diagnosis of tongue malignancy using laser induced fluorescence spectroscopy technique. Proceedings of SPIE, 2015, , .	0.8	0
92	Opto-mechanical door locking system. Proceedings of SPIE, 2015, , .	0.8	0
93	Micro-Raman spectroscopy for identification and classification of UTI bacteria. , 2017, , .		0
94	Red blood cells under externally induced stressors probed by micro-Raman spectroscopy. , 2022, , 141-165.		0
95	Effect of OH substitution in 3-benzylchroman-4-ones: crystallographic, CSD, DFT, FTIR, Hirshfeld surface, and energy framework analysis. RSC Advances, 2021, 11, 20123-20136.	1.7	0
96	Early Diagnosis of Tongue Malignancy Using Laser Induced Fluorescence Spectroscopy Technique. , 2015, , .		0
97	Zone Plate Fabrication Using a Low Power Femtosecond Laser. Advanced Science Letters, 2017, 23, 1745-1748.	0.2	0
98	Design and development of a photoacoustic set up for breath analysis: a preliminary study. , 2021, , .		0