

# Anna Chiara De Luca

## List of Publications by Year in descending order

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89  
papers

1,902  
citations

186209

28  
h-index

276775

41  
g-index

90  
all docs

90  
docs citations

90  
times ranked

2225  
citing authors

#	ARTICLE	IF	CITATIONS
1	Spectroscopical and mechanical characterization of normal and thalassemic red blood cells by Raman Tweezers. <i>Optics Express</i> , 2008, 16, 7943.	1.7	121
2	Online Fluorescence Suppression in Modulated Raman Spectroscopy. <i>Analytical Chemistry</i> , 2010, 82, 738-745.	3.2	106
3	Optimal algorithm for fluorescence suppression of modulated Raman spectroscopy. <i>Optics Express</i> , 2010, 18, 11382.	1.7	79
4	Surface-Enhanced Raman and Fluorescence Spectroscopy with an All-Dielectric Metasurface. <i>Journal of Physical Chemistry C</i> , 2018, 122, 19738-19745.	1.5	75
5	A reliable Raman-spectroscopy-based approach for diagnosis, classification and follow-up of B-cell acute lymphoblastic leukemia. <i>Scientific Reports</i> , 2016, 6, 24821.	1.6	71
6	Ultrasensitive Surface Refractive Index Imaging Based on Quasi-Bound States in the Continuum. <i>ACS Nano</i> , 2020, 14, 15417-15427.	7.3	67
7	Raman Tweezers as a Diagnostic Tool of Hemoglobin-Related Blood Disorders. <i>Sensors</i> , 2008, 8, 7818-7832.	2.1	63
8	Nanosphere Lithography on Fiber: Towards Engineered Lab-On-Fiber SERS Optrodes. <i>Sensors</i> , 2018, 18, 680.	2.1	60
9	Modulated Raman spectroscopy for enhanced identification of bladder tumor cells in urine samples. <i>Journal of Biomedical Optics</i> , 2011, 16, 037002.	1.4	57
10	Label-Free Probing of G-Quadruplex Formation by Surface-Enhanced Raman Scattering. <i>Analytical Chemistry</i> , 2011, 83, 6849-6855.	3.2	56
11	Quantitative assessment of non-conservative radiation forces in an optical trap. <i>Europhysics Letters</i> , 2009, 86, 38002.	0.7	54
12	Reproducible Surface-Enhanced Raman Quantification of Biomarkers in Multicomponent Mixtures. <i>ACS Nano</i> , 2014, 8, 2575-2583.	7.3	52
13	Modulated Raman Spectroscopy for Enhanced Cancer Diagnosis at the Cellular Level. <i>Sensors</i> , 2015, 15, 13680-13704.	2.1	50
14	Bio-derived Three-Dimensional Hierarchical Nanostructures as Efficient Surface-Enhanced Raman Scattering Substrates for Cell Membrane Probing. <i>ACS Applied Materials &amp; Interfaces</i> , 2018, 10, 12406-12416.	4.0	44
15	Microrheology of complex fluids using optical tweezers: a comparison with macrorheological measurements. <i>Journal of Optics</i> , 2009, 11, 034016.	1.5	43
16	Label-Free Imaging and Biochemical Characterization of Bovine Sperm Cells. <i>Biosensors</i> , 2015, 5, 141-157.	2.3	42
17	Internalization kinetics and cytoplasmic localization of functionalized diatomite nanoparticles in cancer cells by Raman imaging. <i>Journal of Biophotonics</i> , 2018, 11, e201700207.	1.1	41
18	Raman detection and identification of normal and leukemic hematopoietic cells. <i>Journal of Biophotonics</i> , 2018, 11, e201700265.	1.1	37

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19	UV-shielding and wavelength conversion by centric diatom nanopatterned frustules. Scientific Reports, 2018, 8, 16285.	1.6	37
20	Biologically enabled sub-diffractive focusing. Optics Express, 2014, 22, 27214.	1.7	36
21	Biosensing Using SERS Active Gold Nanostructures. Nanomaterials, 2021, 11, 2679.	1.9	35
22	On the interaction of nano-sized organic carbon particles with model lipid membranes. Carbon, 2009, 47, 2950-2957.	5.4	34
23	Optical eigenmode imaging. Physical Review A, 2011, 84, .	1.0	34
24	Non-invasive sex assessment in bovine semen by Raman spectroscopy. Laser Physics Letters, 2014, 11, 055604.	0.6	32
25	SERS Quantification of Galunisertib Delivery in Colorectal Cancer Cells by Plasmonic-Assisted Diatomite Nanoparticles. Small, 2021, 17, e2101711.	5.2	32
26	Diffusion in Polymer Blends by Raman Microscopy. Macromolecules, 2008, 41, 5512-5514.	2.2	31
27	Gold decorated porous biosilica nanodevices for advanced medicine. Nanotechnology, 2018, 29, 235601.	1.3	29
28	Observation of spin-polarized directive coupling of light at bound states in the continuum. Optica, 2019, 6, 1305.	4.8	29
29	Enhancing Raman Tweezers by Phase-Sensitive Detection. Analytical Chemistry, 2007, 79, 3708-3715.	3.2	28
30	[INVITED] Raman microscopy based sensing of leukemia cells: A review. Optics and Laser Technology, 2018, 108, 7-16.	2.2	28
31	Tailoring lab-on-fiber SERS optrodes towards biological targets of different sizes. Sensors and Actuators B: Chemical, 2021, 339, 129321.	4.0	28
32	Surface-enhanced Raman scattering study of nano-sized organic carbon particles produced in combustion processes. Carbon, 2008, 46, 335-341.	5.4	25
33	Gold Nanoparticles Modulate BCG-Induced Innate Immune Memory in Human Monocytes by Shifting the Memory Response towards Tolerance. Cells, 2020, 9, 284.	1.8	25
34	Diffusive Mixing of Polymers Investigated by Raman Microspectroscopy and Microrheology. Langmuir, 2010, 26, 14223-14230.	1.6	23
35	Combined Raman and polarization sensitive holographic imaging for a multimodal label-free assessment of human sperm function. Scientific Reports, 2019, 9, 4823.	1.6	23
36	Raman Microscopy: Progress in Research on Cancer Cell Sensing. Sensors, 2020, 20, 5525.	2.1	22

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37	Coherent control of plasmonic nanoantennas using optical eigenmodes. <i>Scientific Reports</i> , 2013, 3, 1808.	1.6	21
38	Simultaneous Holographic Microscopy and Raman Spectroscopy Monitoring of Human Spermatozoa Photodegradation. <i>IEEE Journal of Selected Topics in Quantum Electronics</i> , 2016, 22, 27-34.	1.9	21
39	Enhanced bioanalyte detection in waveguide confined Raman spectroscopy using wavelength modulation. <i>Journal of Biophotonics</i> , 2011, 4, 514-518.	1.1	20
40	Nonredundant Raman imaging using optical eigenmodes. <i>Optica</i> , 2014, 1, 257.	4.8	20
41	Phase-sensitive detection in Raman tweezers. <i>Applied Physics Letters</i> , 2006, 89, 261116.	1.5	18
42	Interaction of nanoparticles with endotoxin <i>Importance in nanosafety testing and exploitation for endotoxin binding</i>. <i>Nanotoxicology</i> , 2021, 15, 558-576.	1.6	16
43	Combined Raman Spectroscopy and Digital Holographic Microscopy for Sperm Cell Quality Analysis. <i>Journal of Spectroscopy</i> , 2017, 2017, 1-14.	0.6	15
44	Interaction between Macrophages and Nanoparticles: In Vitro 3D Cultures for the Realistic Assessment of Inflammatory Activation and Modulation of Innate Memory. <i>Nanomaterials</i> , 2021, 11, 207.	1.9	15
45	Real-time actin-cytoskeleton depolymerization detection in a single cell using optical tweezers. <i>Optics Express</i> , 2007, 15, 7922.	1.7	14
46	Plasmon-like surface states in negative refractive index photonic crystals. <i>Applied Physics Letters</i> , 2013, 102, 081113.	1.5	14
47	SERS Sensing of Bacterial Endotoxin on Gold Nanoparticles. <i>Frontiers in Immunology</i> , 2021, 12, 758410.	2.2	14
48	Detection of HCl and HF by TTFMS and WMS. <i>Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy</i> , 2006, 63, 923-928.	2.0	11
49	Diatom biosilica in plasmonics: applications in sensing, diagnostics and therapeutics [Invited]. <i>Biomedical Optics Express</i> , 2022, 13, 3080.	1.5	11
50	Resistance and Raman spectroscopy analysis of <i>Parageobacillus thermantarcticus</i> spores after $\hat{1}^3$ -ray exposure. <i>Extremophiles</i> , 2018, 22, 931-941.	0.9	10
51	Mechanical changes of living oocytes at maturation investigated by multiple particle tracking. <i>Applied Physics Letters</i> , 2009, 95, 093702.	1.5	8
52	Normal-State Optical Features Study of Nd123 and Gd1212 HTSC Materials for Photonics and Metamaterials Fabrication. <i>IEEE Transactions on Applied Superconductivity</i> , 2016, 26, 1-4.	1.1	4
53	Polarized Digital Holography as Valuable Analytical Tool in Biological and Medical Research. , 2019, , .		3
54	Innate Memory Reprogramming by Gold Nanoparticles Depends on the Microbial Agents That Induce Memory. <i>Frontiers in Immunology</i> , 2021, 12, 751683.	2.2	3

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55	Doppler-free spectroscopy of xenon in the mid-infrared using difference-frequency radiation. Optics Express, 2005, 13, 8357.	1.7	2
56	Modulated Raman spectroscopy technique for real-time fluorescence rejection. , 2010, , .		1
57	Observation of resonant states in negative refractive photonic crystals. Journal of the European Optical Society-Rapid Publications, 0, 9, .	0.9	1
58	SERS sensing of cancer biomarkers. , 2014, , .		1
59	Raman sex sorting of bovine spermatozoa. , 2014, , .		1
60	A combined holographic and Raman microscopy approach for the assessment of spermatozoa. , 2015, , .		1
61	Discrimination and classification of acute lymphoblastic leukemia cells by Raman spectroscopy. Proceedings of SPIE, 2015, , .	0.8	1
62	Analysis of bovine sperm cells by a combined holographic and Raman microscopy approach. , 2015, , .		1
63	Raman Characterization of Melt-Textured Gd1212 Superconductors in the Normal State. IEEE Transactions on Applied Superconductivity, 2018, 28, 1-4.	1.1	1
64	Bound-state in the continuum of a photonic crystal metasurface: a platform for ultrasensitive sensing and near field amplification. Journal of Physics: Conference Series, 2020, 1461, 012138.	0.3	1
65	Fluorescence background suppression in Raman spectroscopy. , 2010, , .		1
66	Enhancing light-matter interaction in all-dielectric photonic crystal metasurfaces. , 2019, , .		1
67	Enhancing Raman analysis in Optical Tweezers by phase-sensitive detection. , 2007, , .		0
68	Fluorescence-free biochemical characterization of cells using modulated Raman spectroscopy. Proceedings of SPIE, 2010, , .	0.8	0
69	Fluorescence-Free Biochemical Characterization of Cells Using Modulated Raman Spectroscopy. , 2010, , .		0
70	Optical eigenmodes for imaging applications. , 2012, , .		0
71	Negative index resonant states: a route toward nonmetal plasmonics and metamaterials. , 2013, , .		0
72	Label-free biochemical characterization of bovine sperm cells using Raman microscopy. Proceedings of SPIE, 2013, , .	0.8	0

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73	The negative refraction under out-of-plane incident condition: an experimental study. , 2014, , .		0
74	Biomolecular sensing for cancer diagnostics using highly reproducible SERS substrates. , 2014, , .		0
75	Label-free biochemical characterization of bovine sperm cells using Raman microscopy. Proceedings of SPIE, 2014, , .	0.8	0
76	Sub-diffractive light confinement: A biological-based approach. , 2014, , .		0
77	Combining focusing properties of a single diatom valve with optical eigenmodes in ultra-shrinking of light. , 2014, , .		0
78	Spermatozoa quality assessment: a combined holographic and Raman microscopy approach. Proceedings of SPIE, 2015, , .	0.8	0
79	Enhanced fluorescence emission using bound states in continuum in a photonic crystal membrane. , 2017, , .		0
80	Advanced Label-Free Optical Methods for Spermatozoa Quality Assessment and Selection. , 2018, , .		0
81	Raman Spectroscopy for Biomedical Applications: From Label-free Cancer Cell Sorting to Imaging. , 2019, , .		0
82	SERS Quantification of Galunisertib Delivery in Colorectal Cancer Cells by Plasmonic-Assisted Diatomite Nanoparticles (Small 34/2021). Small, 2021, 17, 2170178.	5.2	0
83	Diatomite nanovectors uptake in cancer cells: a Raman imaging study. , 2018, , .		0
84	Quantum spin Hall effect in bound states in continuum. , 2019, , .		0
85	Lab-on-fiber SERS substrates for biomolecular recognition. , 2019, , .		0
86	Intracellular SERS monitoring of drug release from plasmonic-assisted biosilica nanoparticles. EPJ Web of Conferences, 2021, 255, 13002.	0.1	0
87	Inverse-Doped Melt-Textured Gd1212 Superconductors Samples: Normal State Raman Characterisation Study. IEEE Transactions on Applied Superconductivity, 2022, 32, 1-5.	1.1	0
88	Lab-on-fiber SERS optrodes for biological target detection. , 2021, , .		0
89	The loss of Profilin 1 is a driver of chromosome instability in osteosarcoma. Bone Reports, 2022, 16, 101183.	0.2	0