Maria Antonietta Ferrara

List of Publications by Year
in descending order

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91 papers	977 citations	394421 19 h-index	477307 29 g-index
91 all docs	91 docs citations	91 times ranked	849 citing authors

#	Article	IF	Citations
1	Special Issue on Recent Advances and Future Trends in Nanophotonics. Applied Sciences (Switzerland), 2022, 12, 663.	2.5	0
2	Noises investigations and image denoising in femtosecond stimulated Raman scattering microscopy. Journal of Biophotonics, 2022, 15, e202100379.	2.3	5
3	Analysis of Pulses Bandwidth and Spectral Resolution in Femtosecond Stimulated Raman Scattering Microscopy. Applied Sciences (Switzerland), 2021, 11, 3903.	2.5	9
4	Multimodal imaging for identification and classification of circulating tumor cells. , 2021, , .		0
5	Underwater Light Manipulation by the Benthic Diatom Ctenophora pulchella: From PAR Efficient Collection to UVR Screening. Nanomaterials, 2021, 11, 2855.	4.1	6
6	Stimulated Raman Microscopy Implemented by Three Femtosecond Laser Sources. EPJ Web of Conferences, 2021, 255, 06003.	0.3	0
7	A Spectral Resolution study in Femtosecond Stimulated Raman Scattering Microscopy. EPJ Web of Conferences, 2021, 255, 11009.	0.3	0
8	Holographic Optical Lenses Recorded on a Glassy Matrix-Based Photopolymer for Solar Concentrators. Photonics, 2021, 8, 585.	2.0	3
9	Integrated Photodetectors Based on Group IV and Colloidal Semiconductors: Current State of Affairs. Micromachines, 2020, 11, 842.	2.9	13
10	Polarization-Sensitive Digital Holographic Imaging for Characterization of Microscopic Samples: Recent Advances and Perspectives. Applied Sciences (Switzerland), 2020, 10, 4520.	2.5	19
11	Extending Femtosecond Stimulated Raman Microscopy Toward Silent and Fingerprint Region of Biomolecules. , 2020, , .		0
12	Adipocyte Differentiation Investigated by Stimulated Raman Microscopy Based on Femtosecond Laser Sources. , 2020, , .		0
13	Integrated Raman Laser: A Review of the Last Two Decades. Micromachines, 2020, 11, 330.	2.9	21
14	Fiber Amplifiers and Fiber Lasers Based on Stimulated Raman Scattering: A Review. Micromachines, 2020, 11, 247.	2.9	43
15	Roadmap on holography. Journal of Optics (United Kingdom), 2020, 22, 123002.	2.2	54
16	Volume Phase Holographic Lenses for Efficient Planar Solar Track-Concentrators. Lecture Notes in Electrical Engineering, 2020, , 9-13.	0.4	0
17	Auto and cross correlation measurements of femtosecond laser beams in SRS microscope. , 2020, , .		0
18	Relative intensity noise measurement of femtosecond laser beams in SRS microscope. , 2020, , .		0

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19	A Polarized Digital Holographic Approach in Biological and Medical Research. , 2020, , .		0
20	Implementation of a Nonlinear Microscope Based on Stimulated Raman Scattering. Journal of Visualized Experiments, 2019, , .	0.3	12
21	Three-dimensional label-free imaging throughout adipocyte differentiation by stimulated Raman microscopy. PLoS ONE, 2019, 14, e0216811.	2.5	27
22	Volume Holographic Optical Elements as Solar Concentrators: An Overview. Applied Sciences (Switzerland), 2019, 9, 193.	2.5	26
23	Combined Raman and polarization sensitive holographic imaging for a multimodal label-free assessment of human sperm function. Scientific Reports, 2019, 9, 4823.	3.3	23
24	Polarized Digital Holography as Valuable Analytical Tool in Biological and Medical Research. , 2019, , .		3
25	Stimulated Raman Imaging of Lipids Droplets. , 2018, , .		0
26	Advanced Label-Free Optical Methods for Spermatozoa Quality Assessment and Selection. , 2018, , .		0
27	Towards Applications of Stimulated Raman Scattering in Nanophotonics. , 2018, , .		0
28	Label-free imaging of lipid droplets in cells by stimulated Raman microscopy. , 2018, , .		1
29	Integration of stimulated Raman gain and stimulated Raman losses detection modes in a single nonlinear microscope. Optics Express, 2018, 26, 26317.	3.4	16
30	Implementation of stimulated Raman losses and stimulated Raman gain microscopy using three femtosecond laser sources. , 2018, , .		0
31	Implementation of stimulated Raman scattering microscopy for single cell analysis. Proceedings of SPIE, 2017, , .	0.8	2
32	Automatic method for features extraction for images achieved by stimulated Raman scattering microscopy. , 2017, , .		0
33	Toward an ideal nanomaterial for on-chip Raman laser. Journal of Nonlinear Optical Physics and Materials, 2017, 26, 1750039.	1.8	13
34	Label-free imaging of small lipid droplets by femtosecond-stimulated Raman scattering microscopy. Journal of Nonlinear Optical Physics and Materials, 2017, 26, 1750052.	1.8	21
35	Advances in stimulated Raman scattering in nanostructures. Advances in Optics and Photonics, 2017, 9, 169.	25.5	40
36	Combined Raman Spectroscopy and Digital Holographic Microscopy for Sperm Cell Quality Analysis. Journal of Spectroscopy, 2017, 2017, 1-14.	1.3	15

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37	Volume Holographic Optical Elements as Solar Concentrators. , 2017, , .		2
38	Diatom Valve Three-Dimensional Representation: A New Imaging Method Based on Combined Microscopies. International Journal of Molecular Sciences, 2016, 17, 1645.	4.1	7
39	Subcellular chemical and morphological analysis by stimulated Raman scattering microscopy and image analysis techniques. Biomedical Optics Express, 2016, 7, 1853.	2.9	26
40	Simultaneous Holographic Microscopy and Raman Spectroscopy Monitoring of Human Spermatozoa Photodegradation. IEEE Journal of Selected Topics in Quantum Electronics, 2016, 22, 27-34.	2.9	21
41	Holographic imaging of unlabelled sperm cells for semen analysis: a review. Journal of Biophotonics, 2015, 8, 779-789.	2.3	56
42	Multiplexed holographic lenses : realization and optical characterization. , 2015, , .		4
43	Femtosecond stimulated Raman spectroscopy and preliminary steps for nonlinear microscopy. , 2015, , .		0
44	Tailoring nonlinear nanostructured materials for integrated sources based on stimulated Raman scattering. , 2015, , .		0
45	A combined holographic and Raman microscopy approach for the assessment of spermatozoa. , 2015, , .		1
46	Femtosecond stimulated Raman spectroscopy as a first step for nonlinear microscopy. , 2015, , .		0
47	Photopolymer-based volume holographic optical elements: design and possible applications. Journal of the European Optical Society-Rapid Publications, 2015, 10, 15057.	1.9	20
48	Label-Free Imaging and Biochemical Characterization of Bovine Sperm Cells. Biosensors, 2015, 5, 141-157.	4.7	42
49	Analysis of phase patterns in photochromic polyurethanes by a holographic approach. Optical Materials Express, 2015, 5, 2281.	3.0	4
50	Volume holographic gratings: fabrication and characterization. Proceedings of SPIE, 2015, , .	0.8	8
51	Study of Raman amplification in nanostructured materials. , 2015, , .		1
52	Analysis of bovine sperm cells by a combined holographic and Raman microscopy approach. , 2015, , .		1
53	Stimulated Raman scattering in nanostructured materials. , 2015, , .		1
54	Spermatozoa quality assessment: a combined holographic and Raman microscopy approach. Proceedings of SPIE, 2015, , .	0.8	0

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55	Volume holographic gratings as optical sensor for heavy metal in bathing waters. Proceedings of SPIE, 2015, , .	0.8	7
56	Optical Properties of Diatom Nanostructured Biosilica in Arachnoidiscus sp: Micro-Optics from Mother Nature. PLoS ONE, 2014, 9, e103750.	2.5	82
57	Non-invasive sex assessment in bovine semen by Raman spectroscopy. Laser Physics Letters, 2014, 11, 055604.	1.4	32
58	Label-free biochemical characterization of bovine sperm cells using Raman microscopy. Proceedings of SPIE, 2014, , .	0.8	0
59	Raman amplifier based on Si-nc. , 2014, , .		2
60	Raman sex sorting of bovine spermatozoa. , 2014, , .		1
61	Three-dimensional imaging using digital holography and scanning electron microscopy. , 2014, , .		0
62	Characterization of photopolymers as optical recording materials by means of digital holography microscopy. , 2013, , .		6
63	Optics with diatoms: towards efficient, bioinspired photonic devices at the micro-scale. , 2013, , .		10
64	Nonlinear optics at nanoscale: The stimulated raman effect. , 2013, , .		0
65	Label-free biochemical characterization of bovine sperm cells using Raman microscopy. Proceedings of SPIE, 2013, , .	0.8	0
66	Nonlinear optics at nanoscale: The stimulated Raman effect. , 2013, , .		0
67	EXPERIMENTAL INVESTIGATION OF STIMULATED RAMAN SCATTERING GAIN IN SILICON NANOCOMPOSITE AND IN AMORPHOUS SILICON NANOPARTICLES. Journal of Nonlinear Optical Physics and Materials, 2012, 21, 1250039.	1.8	7
68	Raman Amplifier Based on Amorphous Silicon Nanoparticles. International Journal of Photoenergy, 2012, 2012, 1-5.	2.5	13
69	Giant Raman gain in silicon nanocrystals. Nature Communications, 2012, 3, 1220.	12.8	91
70	Enhanced gain coefficient in Raman amplifier based on silicon nanocomposites. Photonics and Nanostructures - Fundamentals and Applications, 2011, 9, 1-7.	2.0	29
71	Stimulated Raman scattering in quantum dots and nanocomposites silicon based materials. , 2011, , .		1
72	New perspectives and applications of silicon nanophotonics. Proceedings of SPIE, 2010, , .	0.8	0

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73	Observation of stimulated Raman scattering in silicon nanocomposites. Applied Physics Letters, 2009, 94, 221106.	3.3	27
74	Enhanced Stimulated Raman Scattering in silicon nanocrystals embedded in silicon-rich nitride/silicon superlattice structures. , 2009, , .		0
75	Micro and nanophotonics in silicon: new perspectives and applications. , 2009, , .		0
76	Prospects for a waveguide Raman amplifier in porous silicon at 1.5 Î¼m. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 1644-1647.	0.8	1
77	Study of strain and wetting phenomena in porous silicon by Raman scattering. Journal of Raman Spectroscopy, 2008, 39, 199-204.	2.5	32
78	RAMAN APPROACH IN POROUS SILICON AT 1.5 Î¼M. Journal of Nonlinear Optical Physics and Materials, 2008, 17, 37-48.	1.8	0
79	Investigation of Porous Silicon Wetting by Raman Scattering. Spectroscopy Letters, 2008, 41, 174-178.	1.0	2
80	Enhanced stimulated Raman scattering in silicon nanocrystals embedded in silicon-rich nitride/silicon superlattice structures. Applied Physics Letters, 2008, 93, 251104.	3.3	29
81	Measurements of adsorption strain in porous silicon by Raman scattering. , 2007, , .		2
82	Study of the effects on the Raman spectra of adsorption strain in porous silicon. , 2007, , .		0
83	Raman approach for study of amplification in porous silicon at 1.5 Î¼m. , 2006, , .		0
84	Spontaneous Raman emission in porous silicon at 1.5 Âµm and prospects for a Raman amplifier. Journal of Optics, 2006, 8, S574-S577.	1.5	8
85	Broadening and tuning of spontaneous Raman emission in porous silicon at 1.5Î¼m. Applied Physics Letters, 2006, 88, 211105.	3.3	27
86	Raman sensing of vapors and liquids in porous silicon. , 2005, , .		0
87	Raman emission in porous silicon at 1.5 micron: a possible approach. , 2005, , .		0
88	Spontaneous Raman emission and tunable Stokes shift in porous silicon. , 0, , .		0
89	Stimulated Raman Scattering in Micro- and Nanophotonics. , 0, , .		1
90	Femtosecond Stimulated Raman Microscopy in Câ–¬H Region of Raman Spectra of Biomolecules and Its Extension to Silent and Fingerprint Regions. , 0, , .		0

#	Article	IF	Citations
91	CHAPTER 5. Micro- and Nano-optical Devices from Diatom Nanostructures: Light Control by Mother Nature. RSC Nanoscience and Nanotechnology, 0, , 111-125.	0.2	1