Paola Borri

List of Publications by Year
in descending order

113 papers	3,849 citations	126907 33 h-index	128289 60 g-index
114 all docs	114 docs citations	114 times ranked	3308 citing authors

#	Article	IF	Citations
1	Biofunctionalisation of gallium arsenide with neutravidin. Journal of Colloid and Interface Science, 2022, 608, 2399-2406.	9.4	3
2	A primary effect of palmitic acid on mouse oocytes is the disruption of the structure of the endoplasmic reticulum. Reproduction, 2022, 163, 45-56.	2.6	3
3	Brillouinâ€"Raman microspectroscopy for the morpho-mechanical imaging of human lamellar bone. Journal of the Royal Society Interface, 2022, 19, 20210642.	3.4	8
4	Sizing individual dielectric nanoparticles with quantitative differential interference contrast microscopy. Analyst, The, 2022, 147, 1567-1580.	3.5	6
5	Quantitative morphometric analysis of single gold nanoparticles by optical extinction microscopy: Material permittivity and surface damping effects. Journal of Chemical Physics, 2021, 154, 044702.	3.0	2
6	Quantitative coherent Raman scattering microscopy for bioimaging. , 2021, , .		0
7	Roadmap on bio-nano-photonics. Journal of Optics (United Kingdom), 2021, 23, 073001.	2.2	4
8	Quantification of the nonlinear susceptibility of the hydrogen and deuterium stretch vibration for biomolecules in coherent Raman microâ€spectroscopy. Journal of Raman Spectroscopy, 2021, 52, 1540-1551.	2.5	4
9	Identifying subpopulations in multicellular systems by quantitative chemical imaging using label-free hyperspectral CARS microscopy. Analyst, The, 2021, 146, 2277-2291.	3.5	8
10	Hyperspectral CARS microscopy and quantitative unsupervised analysis of deuterated and non-deuterated fatty acid storage in human cells. Journal of Chemical Physics, 2021, 155, 224202.	3.0	3
11	Background-free 3D four-wave mixing microscopy of single gold nanoparticles inside biological systems. , 2021, , .		0
12	Quantitative Label-Free Imaging of Lipid Domains in Single Bilayers by Hyperspectral Coherent Raman Scattering. Analytical Chemistry, 2020, 92, 14657-14666.	6.5	19
13	Functional imaging of a model unicell: Spironucleus vortens as an anaerobic but aerotolerant flagellated protist. Advances in Microbial Physiology, 2020, 76, 41-79.	2.4	3
14	The optical nanosizer â€" quantitative size and shape analysis of individual nanoparticles by high-throughput widefield extinction microscopy. Nanoscale, 2020, 12, 16215-16228.	5.6	13
15	Quantitative Imaging of B1 Cyclin Expression Across the Cell Cycle Using Green Fluorescent Protein Tagging and Epifluorescence. Cytometry Part A: the Journal of the International Society for Analytical Cytology, 2020, 97, 1066-1072.	1.5	5
16	Quantitative optical microspectroscopy, electron microscopy, and modelling of individual silver nanocubes reveal surface compositional changes at the nanoscale. Nanoscale Advances, 2020, 2, 2485-2496.	4.6	5
17	Four-wave-mixing microscopy reveals non-colocalisation between gold nanoparticles and fluorophore conjugates inside cells. Nanoscale, 2020, 12, 4622-4635.	5.6	10
18	Quantitative Measurement of the Optical Cross Sections of Single Nano-objects by Correlative Transmission and Scattering Microspectroscopy. ACS Photonics, 2019, 6, 2149-2160.	6.6	18

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19	Lipid Bilayer Thickness Measured by Quantitative DIC Reveals Phase Transitions and Effects of Substrate Hydrophilicity. Langmuir, 2019, 35, 13805-13814.	3.5	34
20	Dynamic label-free imaging of lipid droplets and their link to fatty acid and pyruvate oxidation in mouse eggs. Journal of Cell Science, 2019, 132, .	2.0	12
21	Label-Free Volumetric Quantitative Imaging of the Human Somatic Cell Division by Hyperspectral Coherent Anti-Stokes Raman Scattering. Analytical Chemistry, 2019, 91, 2813-2821.	6.5	25
22	Label-free volumetric quantitative imaging of human osteosarcoma cells by hyperspectral coherent anti-Stokes Raman scattering. , 2019, , .		0
23	Imaging lipids in living mammalian oocytes and early embryos by coherent Raman scattering microscopy. , 2019, , .		1
24	Measuring sub-nanometre thickness changes during phase transitions of supported lipid bilayers with quantitative differential interference contrast microscopy. , 2019, , .		0
25	Imaging and tracking single plasmonic nanoparticles in 3D background-free with four-wave mixing interferometry. , 2019, , .		1
26	Heterodyne dual-polarization epi-detected CARS microscopy for chemical and topographic imaging of interfaces. , 2019, , .		0
27	Quantitative high-throughput optical sizing of individual colloidal nanoparticles by wide-field imaging extinction microscopy. , 2019, , .		1
28	Optimisation of multimodal coherent anti-Stokes Raman scattering microscopy for the detection of isotope-labelled molecules. , 2019, , .		0
29	Switching of Macromolecular Ligand Display by Thermoresponsive Polymers Mediates Endocytosis of Multiconjugate Nanoparticles. Bioconjugate Chemistry, 2018, 29, 1030-1046.	3.6	16
30	Bessel-Beam Hyperspectral CARS Microscopy with Sparse Sampling: Enabling High-Content High-Throughput Label-Free Quantitative Chemical Imaging. Analytical Chemistry, 2018, 90, 3775-3785.	6.5	20
31	Labelâ€free quantitative chemical imaging and classification analysis of adipogenesis using mouse embryonic stem cells. Journal of Biophotonics, 2018, 11, e201700219.	2.3	6
32	Wide-Field Imaging of Single-Nanoparticle Extinction with Sub- <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:msup><mml:mrow><mml:mi>nm</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn></m Sensitivity. Physical Review Applied, 2018, 9, .	3.8	8
33	Hyperspectral analysis applied to micro-Brillouin maps of amyloid-beta plaques in Alzheimer's disease brains. Analyst, The, 2018, 143, 6095-6102.	3.5	21
34	Long Exciton Dephasing Time and Coherent Phonon Coupling in CsPbBr₂Cl Perovskite Nanocrystals. Nano Letters, 2018, 18, 7546-7551.	9.1	60
35	Production of Metal-Free Diamond Nanoparticles. ACS Omega, 2018, 3, 16099-16104.	3.5	10
36	Invited Article: Heterodyne dual-polarization epi-detected CARS microscopy for chemical and topographic imaging of interfaces. APL Photonics, 2018, 3, 092402.	5.7	8

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37	Background-Free 3D Nanometric Localization and Sub-nm Asymmetry Detection of Single Plasmonic Nanoparticles by Four-Wave Mixing Interferometry with Optical Vortices. Physical Review X, 2017, 7, .	8.9	11
38	Effect of slurry composition on the chemical mechanical polishing of thin diamond films. Science and Technology of Advanced Materials, 2017, 18, 654-663.	6.1	28
39	Quantitative imaging of lipids in live mouse oocytes and early embryos using CARS microscopy. Development (Cambridge), 2016, 143, 2238-47.	2.5	61
40	Hyperspectral volumetric coherent antiâ€Stokes Raman scattering microscopy: quantitative volume determination and NaCl as nonâ€resonant standard. Journal of Raman Spectroscopy, 2016, 47, 1167-1173.	2.5	20
41	Quantitative Spatiotemporal Chemical Profiling of Individual Lipid Droplets by Hyperspectral CARS Microscopy in Living Human Adipose-Derived Stem Cells. Analytical Chemistry, 2016, 88, 3677-3685.	6.5	39
42	Hyperspectral image analysis for CARS, SRS, and Raman data. Journal of Raman Spectroscopy, 2015, 46, 727-734.	2.5	37
43	Giant exciton oscillator strength and radiatively limited dephasing in two-dimensional platelets. Physical Review B, 2015, 91, .	3.2	143
44	Plasmonics, Tracking and Manipulating, and Living Cells: general discussion. Faraday Discussions, 2015, 184, 451-473.	3.2	9
45	Optical micro-spectroscopy of single metallic nanoparticles: quantitative extinction and transient resonant four-wave mixing. Faraday Discussions, 2015, 184, 305-320.	3.2	11
46	Receptor Crosslinking: A General Method to Trigger Internalization and Lysosomal Targeting of Therapeutic Receptor:Ligand Complexes. Molecular Therapy, 2015, 23, 1888-1898.	8.2	83
47	Hyperspectral and differential CARS microscopy for quantitative chemical imaging in human adipocytes. Biomedical Optics Express, 2014, 5, 1378.	2.9	47
48	Sparse sampling for fast hyperspectral coherent anti-Stokes Raman scattering imaging. Optics Express, 2014, 22, 4021.	3.4	11
49	Chemicallyâ€specific dual/differential CARS microâ€spectroscopy of saturated and unsaturated lipid droplets. Journal of Biophotonics, 2014, 7, 68-76.	2.3	20
50	Coherent anti-Stokes Raman scattering microscopy of single nanodiamonds. Nature Nanotechnology, 2014, 9, 940-946.	31.5	56
51	Quantitative Chemical Imaging and Unsupervised Analysis Using Hyperspectral Coherent Anti-Stokes Raman Scattering Microscopy. Analytical Chemistry, 2013, 85, 10820-10828.	6.5	87
52	Nonlinear vibrational microscopy applied to lipid biology. Progress in Lipid Research, 2013, 52, 615-632.	11.6	93
53	Polarization-resolved ultrafast dynamics of the complex polarizability in single gold nanoparticles. Physical Chemistry Chemical Physics, 2013, 15, 4226.	2.8	17
54	Quadruplex CARS microâ€spectroscopy. Journal of Raman Spectroscopy, 2013, 44, 255-261.	2.5	7

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55	Dual/differential coherent anti-Stokes Raman scattering module for multiphoton microscopes with a femtosecond Ti:sapphire oscillator. Journal of Biomedical Optics, 2013, 18, 1.	2.6	5
56	Simultaneous hyperspectral differential-CARS, TPF and SHG microscopy with a single 5 fs Ti:Sa laser. Optics Express, 2013, 21, 7096.	3.4	58
57	Polarization-resolved extinction and scattering cross-sections of individual gold nanoparticles measured by wide-field microscopy on a large ensemble. Applied Physics Letters, 2013, 102, 131107.	3.3	23
58	MasiaetÂal.Reply:. Physical Review Letters, 2012, 109, .	7.8	1
59	Spin-Flip Limited Exciton Dephasing in<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mi>CdSe</mml:mi><mml:mo>/</mml:mo><mml:mi>ZnS</mml:mi></mml:math>Colloidal Quantum Dots. Physical Review Letters, 2012, 108, 087401.	7.8	48
60	Live Cell Imaging with Chemical Specificity Using Dual Frequency CARS Microscopy. Methods in Enzymology, 2012, 504, 273-291.	1.0	9
61	Measurement of the dynamics of plasmons inside individual gold nanoparticles using a femtosecond phase-resolved microscope. Physical Review B, 2012, 85, .	3.2	69
62	Role of interband and photoinduced absorption in the nonlinear refraction and absorption of resonantly excited PbS quantum dots around 1550 nm. Physical Review B, 2012, 85, .	3.2	17
63	Engineering the Spinâ€"Flip Limited Exciton Dephasing in Colloidal CdSe/CdS Quantum Dots. ACS Nano, 2012, 6, 5227-5233.	14.6	40
64	Doing More with Less: A Method for Low Total Mass, Affinity Measurement Using Variable-Length Nanotethers. Analytical Chemistry, 2011, 83, 8900-8905.	6.5	0
65	Ultrafast conditional carrier dynamics in semiconductor quantum dots. Proceedings of SPIE, 2011, , .	0.8	0
66	Triply surface-plasmon resonant four-wave mixing imaging of gold nanoparticles. Proceedings of SPIE, 2011, , .	0.8	2
67	Exciton dephasing in lead sulfide quantum dots by<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline"><mml:mrow><mml:mi>X</mml:mi></mml:mrow></mml:math>-point phonons. Physical Review B, 2011, 83, .	3.2	21
68	Ultrafast exciton dephasing in PbS colloidal quantum dots. , 2011, , .		0
69	Differential CARS microscopy with chirped femtosecond laser pulses. , 2011, , .		0
70	Differential CARS microscopy with linearly chirped femtosecond laser pulses. Proceedings of SPIE, 2011, , .	0.8	0
71	Measurement of the ultrafast gain recovery in InGaAs/GaAs quantum dots: Beyond a mean-field description. Physical Review B, 2010, 82, .	3.2	7
72	Ultrafast gain dynamics in InP quantum-dot optical amplifiers. Applied Physics Letters, 2010, 97, 211103.	3.3	13

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73	Dephasing of excitons and multiexcitons in undoped andp-doped InAs/GaAs quantum dots-in-a-well. Physical Review B, 2010, 82, .	3.2	11
74	Four-wave-mixing imaging and carrier dynamics of PbS colloidal quantum dots. Physical Review B, 2010, 82, .	3.2	13
75	Ultrafast pulse-pair amplification in InGaAs quantum-dot amplifiers. , 2009, , .		0
76	Single source coherent anti-Stokes Raman microspectroscopy using spectral focusing. Applied Physics Letters, 2009, 95, 081109.	3.3	46
77	CARS Microscopy using linearly-chirped ultrafast laser pulses. , 2009, , .		0
78	Four-wave mixing of gold nanoparticles for three-dimensional cell microscopy. , 2009, , .		0
79	CARS microscopy using linearly chirped ultrafast laser pulses. , 2009, , .		0
80	Coherent antiâ€Stokes Raman microâ€spectroscopy using spectral focusing: theory and experiment. Journal of Raman Spectroscopy, 2009, 40, 800-808.	2.5	55
81	Fabrication and optical properties of thin silicaâ€coated CdSe/ZnS quantum dots. Physica Status Solidi (A) Applications and Materials Science, 2009, 206, 2822-2825.	1.8	3
82	Novel multi-photon microscopy based on resonant nonlinear optics of colloidal quantum dots. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 916-919.	0.8	2
83	Resonant four-wave mixing of gold nanoparticles for three-dimensional cell microscopy. Optics Letters, 2009, 34, 1816.	3.3	41
84	Differential coherent anti-Stokes Raman scattering microscopy with linearly chirped femtosecond laser pulses. Optics Letters, 2009, 34, 2258.	3.3	49
85	Comparison of Methods for Generating Planar DNA-Modified Surfaces for Hybridization Studies. ACS Applied Materials & Interfaces, 2009, 1, 1793-1798.	8.0	11
86	The role of p-doping in the gain dynamics of InAs/GaAs quantum dots at low temperature. Applied Physics Letters, 2009, 94, 041110.	3.3	11
87	Modelling the response of whispering-gallery-mode optical resonators for biosensing applications. , 2009, , .		0
88	Whispering-gallery modes in dielectric microspheres for biosensing applications. , 2009, , .		0
89	Refractive Index Dynamics and Linewidth Enhancement Factor in p-Doped InAsâ€“GaAs Quantum-Dot Amplifiers. IEEE Journal of Quantum Electronics, 2009, 45, 579-585.	1.9	15
90	Multiphoton microscopy based on four-wave mixing of colloidal quantum dots. Applied Physics Letters, 2008, 93, 021114.	3.3	11

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91	Coherent anti-Stokes Raman microspectroscopy using spectral focusing with glass dispersion. Applied Physics Letters, 2008, 93, .	3.3	112
92	A monolithic optical sensor based on whispering-gallery modes in polystyrene microspheres. Applied Physics Letters, 2008, 93, .	3.3	42
93	Sensitive optical biosensor based on whispering-gallery modes of dielectric microspheres. , 2007, , .		0
94	High Q optical resonances of polystyrene microspheres in water controlled by optical tweezers. Applied Physics Letters, 2007, 91, 141116.	3.3	24
95	Four-wave mixing dynamics of excitons in InGaAs self-assembled quantum dots. Journal of Physics Condensed Matter, 2007, 19, 295201.	1.8	34
96	Ultrafast gain dynamics in 1.3Î¼m InAsâ^•GaAs quantum-dot optical amplifiers: The effect of p doping. Applied Physics Letters, 2007, 90, 201103.	3.3	33
97	Ultrafast carrier dynamics in InGaAs quantum dot materials and devices. Journal of Optics, 2006, 8, S33-S46.	1.5	75
98	Linewidth enhancement factor in InGaAs quantum-dot amplifiers. IEEE Journal of Quantum Electronics, 2004, 40, 1423-1429.	1.9	73
99	Dephasing processes in InGaAs quantum dots and quantum-dot molecules. , 2004, , .		0
100	Exciton Dephasing in Quantum Dot Molecules. Physical Review Letters, 2003, 91, 267401.	7.8	100
101	Biexcitons in semiconductor microcavities. Semiconductor Science and Technology, 2003, 18, S351-S360.	2.0	14
102	Semiconductor quantum-dot lasers and amplifiers. , 2002, , .		2
103	Exciton relaxation and dephasing in quantum-dot amplifiers from room to cryogenic temperature. IEEE Journal of Selected Topics in Quantum Electronics, 2002, 8, 984-991.	2.9	93
104	Ultrafast Optical Properties of Quantum Dot Amplifiers. Nanoscience and Technology, 2002, , 411-430.	1.5	2
105	Ultrafast carrier dynamics and dephasing in InAs quantum-dot amplifiers emitting near 1.3-Î¼m-wavelength at room temperature. Applied Physics Letters, 2001, 79, 2633-2635.	3.3	69
106	Ultralong Dephasing Time in InGaAs Quantum Dots. Physical Review Letters, 2001, 87, 157401.	7.8	870
107	Separation of coherent and incoherent nonlinearities in a heterodyne pump-probe experiment. Optics Express, 2000, 7, 107.	3.4	23
108	Spectral hole-burning and carrier-heating dynamics in InGaAs quantum-dot amplifiers. IEEE Journal of Selected Topics in Quantum Electronics, 2000, 6, 544-551.	2.9	161

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109	Ultrafast gain dynamics in InAs-InGaAs quantum-dot amplifiers. IEEE Photonics Technology Letters, 2000, 12, 594-596.	2.5	156
110	Time-resolved optical characterization of InAs/InGaAs quantum dots emitting at 1.3 Î¼m. Applied Physics Letters, 2000, 76, 3430-3432.	3.3	85
111	Heterodyne pump-probe and four-wave mixing in semiconductor optical amplifiers using balanced lock-in detection. Optics Communications, 1999, 169, 317-324.	2.1	66
112	Dephasing in InAs/GaAs quantum dots. Physical Review B, 1999, 60, 7784-7787.	3.2	117
113	Simultaneous microscopic imaging of thickness and refractive index of thin layers by heterodyne interferometric reï¬,ectometry (HiRef). Journal Physics D: Applied Physics, 0, , .	2.8	0