Onofrio M MaragÃ³

List of Publications by Year
in descending order

132 papers	6,263 citations	87888 38 h-index	66911 78 g-index
142 all docs	142 docs citations	142 times ranked	7620 citing authors

#	Article	IF	Citations
1	Raman tweezers for tire and road wear micro- and nanoparticles analysis. Environmental Science: Nano, 2022, 9, 145-161.	4.3	14
2	Improved backscattering detection in photonic force microscopy near dielectric surfaces with cylindrical vector beams. Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 258, 107381.	2.3	6
3	T-matrix calculations of spin-dependent optical forces in optically trapped nanowires. European Physical Journal Plus, 2021, 136, 1.	2.6	4
4	Optical tweezers in a dusty universe. European Physical Journal Plus, 2021, 136, 1.	2.6	5
5	Light pressure across all scales: editorial. European Physical Journal Plus, 2021, 136, 582.	2.6	1
6	Improving epidemic testing and containment strategies using machine learning. Machine Learning: Science and Technology, 2021, 2, 035007.	5.0	4
7	Optically induced aggregation by radiation pressure of gold nanorods on graphene for SERS detection of biomolecules. European Physical Journal Plus, 2021, 136, 1.	2.6	0
8	Machine learning to enhance the calculation of optical forces in the geometrical optics approximation. , 2021, , .		1
9	Cosmic dust investigation by optical tweezers for space exploration. , 2021, , .		0
10	Raman Tweezers for single nanoplastic particles analysis in liquid environment. , 2021, , .		0
11	Gain-assisted plasmonic/dielectric nanoshells in Optical Tweezers: Non-linear optomechanics and thermal effects. , 2021, , .		0
12	Detection of microplastics in a digested complex organic medium by Raman Tweezers. , 2021, , .		0
13	Exfoliated 2D-MoS2 nanosheets on carbon and gold screen printed electrodes for enzyme-free electrochemical sensing of tyrosine. Sensors and Actuators B: Chemical, 2020, 303, 127229.	7.8	43
14	Vacuum optomechanics of optically levitated objects. Journal of Physics: Conference Series, 2020, 1461, 012199.	0.4	0
15	Intelligent non-colorimetric indicators for the perishable supply chain by non-wovens with photo-programmed thermal response. Nature Communications, 2020, 11, 5991.	12.8	21
16	Optical tweezers: theory and practice. European Physical Journal Plus, 2020, 135, 1.	2.6	57
17	High-Resolution Photonic Force Microscopy Based on Sharp Nanofabricated Tips. Nano Letters, 2020, 20, 4249-4255.	9.1	9
18	Gain-Assisted Optomechanical Position Locking of Metal/Dielectric Nanoshells in Optical Potentials. ACS Photonics, 2020, 7, 1262-1270.	6.6	15

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19	Optical trapping of microparticles and yeast cells at ultra-low intensity by intracavity nonlinear feedback forces. , 2020, , .		0
20	Position Locking/Channelling Optomechanically Gain-Assisted of Plasmonic/Dielectric Nanoshells in a Optical Tweezers. , 2020, , .		0
21	Raman Tweezers for Small Microplastics and Nanoplastics Identification in Seawater. Environmental Science & Technology, 2019, 53, 9003-9013.	10.0	194
22	Superchiral Surface Waves for All-Optical Enantiomer Separation. Journal of Physical Chemistry C, 2019, 123, 28336-28342.	3.1	11
23	Chiral optical tweezers for optically active particles in the T-matrix formalism. Scientific Reports, 2019, 9, 29.	3.3	22
24	Intracavity optical trapping of microscopic particles in a ring-cavity fiber laser. Nature Communications, 2019, 10, 2683.	12.8	21
25	Wavelength-Dependent Optical Force Aggregation of Gold Nanorods for SERS in a Microfluidic Chip. Journal of Physical Chemistry C, 2019, 123, 5608-5615.	3.1	38
26	Resonant Coupling and Gain Singularities in Metal/Dielectric Multishells: Quasi-Static Versus T-Matrix Calculations. Journal of Physical Chemistry C, 2019, 123, 29291-29297.	3.1	6
27	Optical Trapping, Optical Binding, and Rotational Dynamics of Silicon Nanowires in Counter-Propagating Beams. Nano Letters, 2019, 19, 342-352.	9.1	63
28	Optical Force Positioning and Aggregation of Nanoparticles. , 2019, , .		0
29	Biomineral Amorphous Lasers through Light-Scattering Surfaces Assembled by Electrospun Fiber Templates (Laser Photonics Rev. 12(1)/2018). Laser and Photonics Reviews, 2018, 12, 1870011.	8.7	0
30	Electrospun Conjugated Polymer/Fullerene Hybrid Fibers: Photoactive Blends, Conductivity through Tunneling-AFM, Light Scattering, and Perspective for Their Use in Bulk-Heterojunction Organic Solar Cells. Journal of Physical Chemistry C, 2018, 122, 3058-3067.	3.1	15
31	Biomineral Amorphous Lasers through Lightâ€Scattering Surfaces Assembled by Electrospun Fiber Templates. Laser and Photonics Reviews, 2018, 12, 1700224.	8.7	6
32	Optical trapping and optical force positioning of two-dimensional materials. Nanoscale, 2018, 10, 1245-1255.	5.6	44
33	Low cost tips for tip-enhanced Raman spectroscopy fabricated by two-step electrochemical etching of 125 Âµm diameter gold wires. Beilstein Journal of Nanotechnology, 2018, 9, 2718-2729.	2.8	13
34	Optical Aggregation of Gold Nanoparticles for SERS Detection of Proteins and Toxins in Liquid Environment: Towards Ultrasensitive and Selective Detection. Materials, 2018, 11, 440.	2.9	42
35	Optical tweezers and their applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 218, 131-150.	2.3	150
36	Nanoscale Discrimination between Toxic and Nontoxic Protein Misfolded Oligomers with Tipâ€Enhanced Raman Spectroscopy. Small, 2018, 14, e1800890.	10.0	35

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37	Optical force decoration of 3D microstructures with plasmonic particles. Optics Letters, 2018, 43, 5170.	3.3	8
38	Random optical media based on hybrid organic-inorganic nanowires: multiple scattering, field localization, and light diffusion. , 2017, , .		0
39	Surface plasmon resonance in gold nanoparticles: a review. Journal of Physics Condensed Matter, 2017, 29, 203002.	1.8	1,184
40	Optical Binding of Nanowires. Nano Letters, 2017, 17, 3485-3492.	9.1	39
41	Optical Trapping of Plasmonic Mesocapsules: Enhanced Optical Forces and SERS. Journal of Physical Chemistry C, 2017, 121, 691-700.	3.1	21
42	Spectral shift between the near-field and far-field optoplasmonic response in gold nanospheres, nanoshells, homo- and hetero-dimers. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 195, 97-106.	2.3	18
43	Ferdinando Borghese (26 May 1940â€“19 January 2017). Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 201, 226-228.	2.3	4
44	Double-Wall Nanotubes and Graphene Nanoplatelets for Hybrid Conductive Adhesives with Enhanced Thermal and Electrical Conductivity. ACS Applied Materials & Interfaces, 2016, 8, 23244-23259.	8.0	63
45	SERS detection of Biomolecules at Physiological pH via aggregation of Gold Nanorods mediated by Optical Forces and Plasmonic Heating. Scientific Reports, 2016, 6, 26952.	3.3	141
46	Light-induced rotations of chiral birefringent microparticles in optical tweezers. Scientific Reports, 2016, 6, 31977.	3.3	31
47	Photonic Torque Microscopy of the Nonconservative Force Field for Optically Trapped Silicon Nanowires. Nano Letters, 2016, 16, 4181-4188.	9.1	39
48	Surface-enhanced Raman spectroscopy in 3D electrospun nanofiber mats coated with gold nanorods. Analytical and Bioanalytical Chemistry, 2016, 408, 1357-1364.	3.7	27
49	Optimization of electrospinning techniques for the realization of nanofiber plastic lasers. Proceedings of SPIE, 2016, , .	0.8	5
50	On the SERS depolarization ratio. Nanospectroscopy, 2015, 1, .	0.7	6
51	Electromagnetic theory. , 2015, , 106-153.		1
52	Optical tweezers: a non-destructive tool for soft and biomaterial investigations. Rendiconti Lincei, 2015, 26, 203-218.	2.2	9
53	Superior plasmon absorption in iron-doped gold nanoparticles. Nanoscale, 2015, 7, 8782-8792.	5.6	52
54	Optical trapping of silver nanoplatelets. Optics Express, 2015, 23, 8720.	3.4	23

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55	Optical cooling and trapping: introduction. Journal of the Optical Society of America B: Optical Physics, 2015, 32, OCT1.	2.1	0
56	Focus issue introduction: optical cooling and trapping. Optics Express, 2015, 23, 9917.	3.4	1
57	Scaling of optical forces on Auâ€"PEG coreâ€"shell nanoparticles. RSC Advances, 2015, 5, 93139-93146.	3.6	15
58	Step-by-step guide to the realization of advanced optical tweezers. Journal of the Optical Society of America B: Optical Physics, 2015, 32, B84.	2.1	64
59	Red shifted spectral dependence of the SERS enhancement in a random array of gold nanoparticles covered with a silica shell: extinction versus scattering. Journal of Optics (United Kingdom), 2015, 17, 114016.	2.2	25
60	Optical Binding and Synchronisation in Arrays of Non-Spherical Particles. , 2015, , .		0
61	Polarization Dependent Optical Forces on Chiral Microresonators. , 2014, , .		0
62	Novel architectures for plasmon-enhanced vibrational spectroscopy and biomolecular sensing. , 2014, , .		1
63	Polarization-dependent optomechanics mediated by chiral microresonators. Nature Communications, 2014, 5, 3656.	12.8	74
64	Gold Dimer Nanoantenna with Slanted Gap for Tunable LSPR and Improved SERS. Journal of Physical Chemistry C, 2014, 118, 3209-3219.	3.1	92
65	A Shape-Engineered Surface-Enhanced Raman Scattering Optical Fiber Sensor Working from the Visible to the Near-Infrared. Plasmonics, 2013, 8, 13-23.	3.4	36
66	Optical trapping and manipulation of nanostructures. Nature Nanotechnology, 2013, 8, 807-819.	31.5	829
67	Optical Nanoantennas for Multiband Surface-Enhanced Infrared and Raman Spectroscopy. ACS Nano, 2013, 7, 3522-3531.	14.6	201
68	Optical binding of nanowires in counterpropagating beams. Proceedings of SPIE, 2013, , .	0.8	1
69	Intracavity optical trapping with Ytterbium doped fiber ring laser. , 2013, , .		1
70	Trapping volume control in optical tweezers using cylindrical vector beams. Optics Letters, 2013, 38, 28.	3.3	72
71	Shaping of the trapping volume in optical tweezers using cylindrical vector beams. , 2013, , .		0
72	Shaping of the trapping volume in optical tweezers using cylindrical vector beams. Proceedings of SPIE, 2012, , .	0.8	0

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73	Optically bound particle structures in evanescent wave traps. , 2012, , .		0
74	Optical trapping of nanotubes with cylindrical vector beams. Optics Letters, 2012, 37, 3381.	3.3	91
75	Trapping and deformation of microbubbles in a dual-beam fibre-optic trap. Journal of Optics (United) Tj ETQq1 1 0.784314 rgBT /Over	2.2	16
76	Optical squeezing of microbubbles: ray optics and Mie scattering calculations. , 2012, , .		1
77	Evanescent wave optical trapping and transport of micro- and nanoparticles on tapered optical fibers. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2512-2520.	2.3	48
78	Tuning the structural and optical properties of gold/silver nano-alloys prepared by laser ablation in liquids for optical limiting, ultra-sensitive spectroscopy, and optical trapping. Journal of Quantitative Spectroscopy and Radiative Transfer, 2012, 113, 2490-2498.	2.3	31
79	Raman and IR spectroscopy of manganese superoxide dismutase, a pathology biomarker. Vibrational Spectroscopy, 2012, 62, 50-58.	2.2	25
80	Optical Feedback Radiation Forces: Intracavity Optical Trapping with Feedback-locked Diode Lasers. , 2012, , .		1
81	Radially Polarized Optical Tweezers. , 2011, , .		0
82	Manipulation and Raman Spectroscopy with Optically Trapped Metal Nanoparticles Obtained by Pulsed Laser Ablation in Liquids. Journal of Physical Chemistry C, 2011, 115, 5115-5122.	3.1	65
83	Size-Scaling in Optical Trapping of Silicon Nanowires. Nano Letters, 2011, 11, 4879-4884.	9.1	73
84	Fano-Doppler Laser Cooling of Hybrid Nanostructures. ACS Nano, 2011, 5, 7354-7361.	14.6	27
85	Plasmon-Enhanced Optical Trapping of Gold Nanoaggregates with Selected Optical Properties. ACS Nano, 2011, 5, 905-913.	14.6	84
86	Optical trapping of porous silicon nanoparticles. Nanotechnology, 2011, 22, 505704.	2.6	23
87	Micro and anoparticle Optical Trapping Using Cylindrical Vector Beams. , 2011, , .		0
88	Plasmon-enhanced optical trapping of metal nanoparticles: force calculations and light-driven rotations of nanoaggregates. , 2010, , .		2
89	A Raman Study of MMP2 and MnSOD, Two Pathology Biomarkers. , 2010, , .		0
90	Single wall carbon nanotubes deposited on stainless steel sheet substrates as novel counter electrodes for ruthenium polypyridine based dye sensitized solar cells. Dalton Transactions, 2010, 39, 2903.	3.3	48

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91	Brownian Motion of Graphene. ACS Nano, 2010, 4, 7515-7523.	14.6	194
92	Rotational dynamics of optically trapped nanofibers. Optics Express, 2010, 18, 822.	3.4	69
93	Photonic Force Microscopy: From Femtonewton Force Sensing to Ultra-Sensitive Spectroscopy. Nanoscience and Technology, 2010, , 23-56.	1.5	6
94	Focusing of high order cylindrical vector beams. Journal of Optics, 2009, 11, 065204.	1.5	82
95	Sagnac interferometer method for synthesis of fractional polarization vortices. Optics Letters, 2009, 34, 2560.	3.3	57
96	Optical trapping calculations for metal nanoparticles Comparison with experimental data for Au and Ag spheres. Optics Express, 2009, 17, 10231.	3.4	77
97	Rotation Detection in Light-Driven Nanorotors. ACS Nano, 2009, 3, 3077-3084.	14.6	112
98	Optical trapping of carbon nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2347-2351.	2.7	36
99	Radiation Torque and Force on Optically Trapped Linear Nanostructures. Physical Review Letters, 2008, 100, 163903.	7.8	81
100	Femtonewton Force Sensing with Optically Trapped Nanotubes. Nano Letters, 2008, 8, 3211-3216.	9.1	118
101	PFabrication of gold tips by chemical etching in aqua regia. Review of Scientific Instruments, 2007, 78, 103702.	1.3	23
102	Parametrization of trapping forces on microbubbles in scanning optical tweezers. Journal of Optics, 2007, 9, S278-S283.	1.5	26
103	Pulsed laser deposition of multiwalled carbon nanotubes thin films. Applied Surface Science, 2007, 254, 1260-1263.	6.1	20
104	Resist-assisted atom lithography with group III elements. Applied Physics B: Lasers and Optics, 2006, 85, 487-491.	2.2	2
105	Magnetic induced dichroism and frequency stabilization of violet-blue diode lasers on gallium atomic transitions. Journal of the Optical Society of America B: Optical Physics, 2005, 22, 1325.	2.1	3
106	Towards fabrication of ordered gallium nanostructures by laser manipulation of neutral atoms: study of self-assembling phenomena. Superlattices and Microstructures, 2004, 36, 219-226.	3.1	3
107	Atomic gallium laser spectroscopy with violet/blue diode lasers. Applied Physics B: Lasers and Optics, 2003, 77, 809-815.	2.2	38
108	Calculation of mode coupling for quadrupole excitations in a Bose-Einstein condenstate. Physical Review A, 2002, 65, .	2.5	18

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109	Direct Observation of Irrotational Flow and Evidence of Superfluidity in a Rotating Bose-Einstein Condensate. Physical Review Letters, 2002, 88, 070406.	7.8	25
110	The moment of inertia and the scissors mode of a Bose-condensed gas. Journal of Physics Condensed Matter, 2002, 14, 343-354.	1.8	4
111	Temperature Dependence of Damping and Frequency Shifts of the Scissors Mode of a Trapped Bose-Einstein Condensate. Physical Review Letters, 2001, 86, 3938-3941.	7.8	72
112	Experimental Observation of Beliaev Coupling in a Bose-Einstein Condensate. Physical Review Letters, 2001, 86, 2196-2199.	7.8	67
113	Vortex Nucleation in Bose-Einstein Condensates in an Oblate, Purely Magnetic Potential. Physical Review Letters, 2001, 88, 010405.	7.8	241
114	Bose-Einstein condensation in a stiff TOP trap with adjustable geometry. Journal of Physics B: Atomic, Molecular and Optical Physics, 2000, 33, 4087-4094.	1.5	7
115	Measurement of elastic cross section for cold cesium collisions. Physical Review A, 2000, 61, .	2.5	34
116	Observation of Harmonic Generation and Nonlinear Coupling in the Collective Dynamics of a Bose-Einstein Condensate. Physical Review Letters, 2000, 85, 692-695.	7.8	45
117	Observation of the Scissors Mode and Evidence for Superfluidity of a Trapped Bose-Einstein Condensed Gas. Physical Review Letters, 2000, 84, 2056-2059.	7.8	234
118	Bose-Einstein condensation in a rotating anisotropic TOP trap. Journal of Physics B: Atomic, Molecular and Optical Physics, 1999, 32, 5861-5869.	1.5	17
119	A pyramidal magneto-optical trap as a source of slow atoms. Optics Communications, 1998, 157, 303-309.	2.1	47
120	Photoionization cross sections for excited laser-cooled cesium atoms. Physical Review A, 1998, 57, R4110-R4113.	2.5	36
121	Ray optics. , 0, , 19-41.		0
122	Dipole approximation. , 0, , 42-75.		0
123	Optical beams and focusing. , 0, , 76-105.		0
124	Computational methods. , 0, , 154-187.		0
125	Building an optical tweezers. , 0, , 221-254.		0
126	Data acquisition and optical tweezers calibration. , 0, , 255-295.		0

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127	Wavefront engineering and holographic optical tweezers. , 0, , 319-344.		0
128	Optofluidics and lab-on-a-chip. , 0, , 409-421.		0
129	Plasmonics. , 0, , 470-483.		0
130	Nanostructures. , 0, , 484-497.		0
131	Laser cooling and trapping of atoms. , 0, , 498-523.		0
132	Towards the quantum regime at the mesoscale. , 0, , 524-536.		0