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	Surface plasmon resonance in gold nanoparticles: a review. Journal of Physics Condensed Matter, 2017, 29, 203002.	1.8	1,184
2	Optical trapping and manipulation of nanostructures. Nature Nanotechnology, 2013, 8, 807-819.	31.5	829
3	Vortex Nucleation in Bose-Einstein Condensates in an Oblate, Purely Magnetic Potential. Physical Review Letters, 2001, 88, 010405.	7.8	241
4	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
5	Optical Nanoantennas for Multiband Surface-Enhanced Infrared and Raman Spectroscopy. ACS Nano, 2013, 7, 3522-3531.	14.6	201
6	Brownian Motion of Graphene. ACS Nano, 2010, 4, 7515-7523.	14.6	194
7	Raman Tweezers for Small Microplastics and Nanoplastics Identification in Seawater. Environmental Science & Technology, 2019, 53, 9003-9013.	10.0	194
8	Optical tweezers and their applications. Journal of Quantitative Spectroscopy and Radiative Transfer, 2018, 218, 131-150.	2.3	150
9	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
10	Femtonewton Force Sensing with Optically Trapped Nanotubes. Nano Letters, 2008, 8, 3211-3216.	9.1	118
11	Rotation Detection in Light-Driven Nanorotors. ACS Nano, 2009, 3, 3077-3084.	14.6	112
12	Gold Dimer Nanoantenna with Slanted Gap for Tunable LSPR and Improved SERS. Journal of Physical Chemistry C, 2014, 118, 3209-3219.	3.1	92
13	Optical trapping of nanotubes with cylindrical vector beams. Optics Letters, 2012, 37, 3381.	3.3	91
14	Plasmon-Enhanced Optical Trapping of Gold Nanoaggregates with Selected Optical Properties. ACS Nano, 2011, 5, 905-913.	14.6	84
15	Focusing of high order cylindrical vector beams. Journal of Optics, 2009, 11, 065204.	1.5	82
16	Radiation Torque and Force on Optically Trapped Linear Nanostructures. Physical Review Letters, 2008, 100, 163903.	7.8	81
17	Optical trapping calculations for metal nanoparticles Comparison with experimental data for Au and Ag spheres. Optics Express, 2009, 17, 10231.	3.4	77
18	Polarization-dependent optomechanics mediated by chiral microresonators. Nature Communications, 2014, 5, 3656.	12.8	74

#	ARTICLE	IF	CITATIONS
19	Size-Scaling in Optical Trapping of Silicon Nanowires. Nano Letters, 2011, 11, 4879-4884.	9.1	73
20	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
21	Trapping volume control in optical tweezers using cylindrical vector beams. Optics Letters, 2013, 38, 28.	3.3	72
22	Rotational dynamics of optically trapped nanofibers. Optics Express, 2010, 18, 822.	3.4	69
23	Experimental Observation of Beliaev Coupling in a Bose-Einstein Condensate. Physical Review Letters, 2001, 86, 2196-2199.	7.8	67
24	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
25	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
26	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
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	Sagnac interferometer method for synthesis of fractional polarization vortices. Optics Letters, 2009, 34, 2560.	3.3	57
29	Optical tweezers: theory and practice. European Physical Journal Plus, 2020, 135, 1.	2.6	57
30	Superior plasmon absorption in iron-doped gold nanoparticles. Nanoscale, 2015, 7, 8782-8792.	5.6	52
31	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
32	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
33	A pyramidal magneto-optical trap as a source of slow atoms. Optics Communications, 1998, 157, 303-309.	2.1	47
34	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
35	Optical trapping and optical force positioning of two-dimensional materials. Nanoscale, 2018, 10, 1245-1255.	5.6	44
36	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

#	Article	IF	Citations
37	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
38	Photonic Torque Microscopy of the Nonconservative Force Field for Optically Trapped Silicon Nanowires. Nano Letters, 2016, 16, 4181-4188.	9.1	39
39	Optical Binding of Nanowires. Nano Letters, 2017, 17, 3485-3492.	9.1	39
40	Atomic gallium laser spectroscopy with violet/blue diode lasers. Applied Physics B: Lasers and Optics, 2003, 77, 809-815.	2.2	38
41	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
42	Photoionization cross sections for excited laser-cooled cesium atoms. Physical Review A, 1998, 57, R4110-R4113.	2.5	36
43	Optical trapping of carbon nanotubes. Physica E: Low-Dimensional Systems and Nanostructures, 2008, 40, 2347-2351.	2.7	36
44	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
45	Nanoscale Discrimination between Toxic and Nontoxic Protein Misfolded Oligomers with Tipâ€Enhanced Raman Spectroscopy. Small, 2018, 14, e1800890.	10.0	35
46	Measurement of elastic cross section for cold cesium collisions. Physical Review A, 2000, 61, .	2.5	34
47	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
48	Light-induced rotations of chiral birefringent microparticles in optical tweezers. Scientific Reports, 2016, 6, 31977.	3.3	31
49	Fano-Doppler Laser Cooling of Hybrid Nanostructures. ACS Nano, 2011, 5, 7354-7361.	14.6	27
50	Surface-enhanced Raman spectroscopy in 3D electrospun nanofiber mats coated with gold nanorods. Analytical and Bioanalytical Chemistry, 2016, 408, 1357-1364.	3.7	27
51	Parametrization of trapping forces on microbubbles in scanning optical tweezers. Journal of Optics, 2007, 9, S278-S283.	1.5	26
52	Direct Observation of Irrotational Flow and Evidence of Superfluidity in a Rotating Bose-Einstein Condensate. Physical Review Letters, 2002, 88, 070406.	7.8	25
53	Raman and IR spectroscopy of manganese superoxide dismutase, a pathology biomarker. Vibrational Spectroscopy, 2012, 62, 50-58.	2.2	25
54	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

#	Article	IF	Citations
55	PFabrication of gold tips by chemical etching in aqua regia. Review of Scientific Instruments, 2007, 78, 103702.	1.3	23
56	Optical trapping of porous silicon nanoparticles. Nanotechnology, 2011, 22, 505704.	2.6	23
57	Optical trapping of silver nanoplatelets. Optics Express, 2015, 23, 8720.	3.4	23
58	Chiral optical tweezers for optically active particles in the T-matrix formalism. Scientific Reports, 2019, 9, 29.	3.3	22
59	Optical Trapping of Plasmonic Mesocapsules: Enhanced Optical Forces and SERS. Journal of Physical Chemistry C, 2017, 121, 691-700.	3.1	21
60	Intracavity optical trapping of microscopic particles in a ring-cavity fiber laser. Nature Communications, 2019, 10, 2683.	12.8	21
61	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
62	Pulsed laser deposition of multiwalled carbon nanotubes thin films. Applied Surface Science, 2007, 254, 1260-1263.	6.1	20
63	Calculation of mode coupling for quadrupole excitations in a Bose-Einstein condensate. Physical Review A, 2002, 65, .	2.5	18
64	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
65	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
66	Trapping and deformation of microbubbles in a dual-beam fibre-optic trap. Journal of Optics (United) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 5	2.2	16
67	Scaling of optical forces on Auâ€“PEG coreâ€“shell nanoparticles. RSC Advances, 2015, 5, 93139-93146.	3.6	15
68	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
69	Gain-Assisted Optomechanical Position Locking of Metal/Dielectric Nanoshells in Optical Potentials. ACS Photonics, 2020, 7, 1262-1270.	6.6	15
70	Raman tweezers for tire and road wear micro- and nanoparticles analysis. Environmental Science: Nano, 2022, 9, 145-161.	4.3	14
71	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
72	Superchiral Surface Waves for All-Optical Enantiomer Separation. Journal of Physical Chemistry C, 2019, 123, 28336-28342.	3.1	11

#	Article	IF	Citations
73	Optical tweezers: a non-destructive tool for soft and biomaterial investigations. Rendiconti Lincei, 2015, 26, 203-218.	2.2	9
74	High-Resolution Photonic Force Microscopy Based on Sharp Nanofabricated Tips. Nano Letters, 2020, 20, 4249-4255.	9.1	9
75	Optical force decoration of 3D microstructures with plasmonic particles. Optics Letters, 2018, 43, 5170.	3.3	8
76	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
77	On the SERS depolarization ratio. Nanospectroscopy, 2015, 1, .	0.7	6
78	Biomineral Amorphous Lasers through Lightâ€Scattering Surfaces Assembled by Electrospun Fiber Templates. Laser and Photonics Reviews, 2018, 12, 1700224.	8.7	6
79	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
80	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
81	Photonic Force Microscopy: From Femtonewton Force Sensing to Ultra-Sensitive Spectroscopy. Nanoscience and Technology, 2010, , 23-56.	1.5	6
82	Optimization of electrospinning techniques for the realization of nanofiber plastic lasers. Proceedings of SPIE, 2016, , .	0.8	5
83	Optical tweezers in a dusty universe. European Physical Journal Plus, 2021, 136, 1.	2.6	5
84	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
85	Ferdinando Borghese (26 May 1940â€"19 January 2017). Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 201, 226-228.	2.3	4
86	T-matrix calculations of spin-dependent optical forces in optically trapped nanowires. European Physical Journal Plus, 2021, 136, 1.	2.6	4
87	Improving epidemic testing and containment strategies using machine learning. Machine Learning: Science and Technology, 2021, 2, 035007.	5.0	4
88	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
89	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
90	Resist-assisted atom lithography with group III elements. Applied Physics B: Lasers and Optics, 2006, 85, 487-491.	2.2	2

#	Article	IF	Citations
91	Plasmon-enhanced optical trapping of metal nanoparticles: force calculations and light-driven rotations of nanoaggregates. , 2010, , .		2
92	Optical squeezing of microbubbles: ray optics and Mie scattering calculations. , 2012, , .		1
93	Optical binding of nanowires in counterpropagating beams. Proceedings of SPIE, 2013, , .	0.8	1
94	Intracavity optical trapping with Ytterbium doped fiber ring laser. , 2013, , .		1
95	Novel architectures for plasmon-enhanced vibrational spectroscopy and biomolecular sensing. , 2014, , .		1
96	Electromagnetic theory. , 2015, , 106-153.		1
97	Focus issue introduction: optical cooling and trapping. Optics Express, 2015, 23, 9917.	3.4	1
98	Light pressure across all scales: editorial. European Physical Journal Plus, 2021, 136, 582.	2.6	1
99	Optical Feedback Radiation Forces: Intracavity Optical Trapping with Feedback-locked Diode Lasers. , 2012, , .		1
100	Machine learning to enhance the calculation of optical forces in the geometrical optics approximation. , 2021, , .		1
101	A Raman Study of MMP2 and MnSOD, Two Pathology Biomarkers. , 2010, , .		0
102	Radially Polarized Optical Tweezers. , 2011, , .		0
103	Shaping of the trapping volume in optical tweezers using cylindrical vector beams. Proceedings of SPIE, 2012, , .	0.8	0
104	Optically bound particle structures in evanescent wave traps. , 2012, , .		0
105	Polarization Dependent Optical Forces on Chiral Microresonators. , 2014, , .		0
106	Ray optics. , 0, , 19-41.		0
107	Dipole approximation. , 0, , 42-75.		0
108	Optical beams and focusing. , 0, , 76-105.		0

#	Article	IF	Citations
109	Computational methods. , 0, , 154-187.		0
110	Building an optical tweezers. , 0, , 221-254.		0
111	Data acquisition and optical tweezers calibration. , 0, , 255-295.		0
112	Wavefront engineering and holographic optical tweezers. , 0, , 319-344.		0
113	Optofluidics and lab-on-a-chip. , 0, , 409-421.		0
114	Plasmonics. , 0, , 470-483.		0
115	Nanostructures. , 0, , 484-497.		0
116	Laser cooling and trapping of atoms. , 0, , 498-523.		0
117	Towards the quantum regime at the mesoscale. , 0, , 524-536.		0
118	Optical cooling and trapping: introduction. Journal of the Optical Society of America B: Optical Physics, 2015, 32, OCT1.	2.1	0
119	Random optical media based on hybrid organic-inorganic nanowires: multiple scattering, field localization, and light diffusion. , 2017, , .		0
120	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
121	Vacuum optomechanics of optically levitated objects. Journal of Physics: Conference Series, 2020, 1461, 012199.	0.4	0
122	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
123	Micro and anoparticle Optical Trapping Using Cylindrical Vector Beams. , 2011, , .		0
124	Shaping of the trapping volume in optical tweezers using cylindrical vector beams. , 2013, , .		0
125	Optical Binding and Synchronisation in Arrays of Non-Spherical Particles. , 2015, , .		0
126	Optical Force Positioning and Aggregation of Nanoparticles. , 2019, , .		0

#	Article	IF	Citations
127	Optical trapping of microparticles and yeast cells at ultra-low intensity by intracavity nonlinear feedback forces. , 2020, , .		0
128	Position Locking/Channelling Optomechanically Gain-Assisted of Plasmonic/Dielectric Nanoshells in a Optical Tweezers. , 2020, , .		0
129	Cosmic dust investigation by optical tweezers for space exploration. , 2021, , .		0
130	Raman Tweezers for single nanoplastic particles analysis in liquid environment. , 2021, , .		0
131	Gain-assisted plasmonic/dielectric nanoshells in Optical Tweezers: Non-linear optomechanics and thermal effects. , 2021, , .		0
132	Detection of microplastics in a digested complex organic medium by Raman Tweezers. , 2021, , .		0