Fabrizio Messina

List of Publications by Year
in descending order

93	2,048	236612	264894
papers	citations	25 h-index	42 g-index

95	95	95	2878
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Enhancing carbon dots fluorescence via plasmonic resonance energy transfer. Materials Research Bulletin, 2022, 149, 111746.	2.7	6
2	Decagram-Scale Synthesis of Multicolor Carbon Nanodots: Self-Tracking Nanoheaters with Inherent and Selective Anticancer Properties. ACS Applied Materials & Interfaces, 2022, 14, 2551-2563.	4.0	15
3	Photo-Activated Phosphorescence of Ultrafine ZnS:Mn Quantum Dots: On the Lattice Strain Contribution. Journal of Physical Chemistry C, 2022, 126, 1531-1541.	1.5	1
4	Photoinduced charge separation in functional carbon-silver nanohybrids. Physical Chemistry Chemical Physics, 2022, , .	1.3	0
5	Printable Thermo- and Photo-stable Poly(D,L-lactide)/Carbon Nanodots Nanocomposites via Heterophase Melt-Extrusion Transesterification. Chemical Engineering Journal, 2022, 443, 136525.	6.6	8
6	Photocycle of point defects in highly- and weakly-germanium doped silica revealed by transient absorption measurements with femtosecond tunable pump. Scientific Reports, 2022, 12, .	1.6	1
7	Electron transfer between carbon dots and tetranuclear Dawson-derived sandwich polyanions. Physical Chemistry Chemical Physics, 2022, 24, 17654-17664.	1.3	1
8	Disclosing the emissive surface traps in green-emitting carbon nanodots. Carbon, 2021, 173, 454-461.	5.4	16
9	Micro-photoluminescence of Carbon Dots Deposited on Twisted Double-Layer Graphene Grown by Chemical Vapor Deposition. ACS Applied Materials & Interfaces, 2021, 13, 7324-7333.	4.0	3
10	Transient absorption with a femtosecond tunable excitation pump reveals the emission kinetics of color centers in amorphous silica. Optics Letters, 2021, 46, 1736.	1.7	1
11	A Comparative Study of Top-Down and Bottom-Up Carbon Nanodots and Their Interaction with Mercury Ions. Nanomaterials, 2021, 11, 1265.	1.9	25
12	Fluorescent Carbon Nanodots as Sensors of Toxic Metal Ions and Pesticides. Engineering Proceedings, 2021, 6, .	0.4	1
13	Ultrafast Interface Charge Separation in Carbon Nanodotâ€“Nanotube Hybrids. ACS Applied Materials & Interfaces, 2021, 13, 49232-49241.	4.0	5
14	Sensing of Transition Metals by Top-Down Carbon Dots. Applied Sciences (Switzerland), 2021, 11, 10360.	1.3	3
15	Synthesis of multi-color luminescent ZnO nanoparticles by ultra-short pulsed laser ablation. Applied Surface Science, 2020, 506, 144954.	3.1	21
16	Simultaneous Photonic and Excitonic Coupling in Spherical Quantum Dot Supercrystals. ACS Nano, 2020, 14, 13806-13815.	7.3	22
17	Pressure-Dependent Tuning of Photoluminescence and Size Distribution of Carbon Nanodots for Theranostic Anticancer Applications. Materials, 2020, 13, 4899.	1.3	8
18	Photocycle of Excitons in Nitrogen-Rich Carbon Nanodots: Implications for Photocatalysis and Photovoltaics. ACS Applied Nano Materials, 2020, 3, 6925-6934.	2.4	11

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19	Dynamic Modification of Fermi Energy in Single-Layer Graphene by Photoinduced Electron Transfer from Carbon Dots. Nanomaterials, 2020, 10, 528.	1.9	9
20	Highly Efficient Electron Transfer in a Carbon Dotâ€“Polyoxometalate Nanohybrid. Journal of Physical Chemistry Letters, 2020, 11, 4379-4384.	2.1	16
21	UV photobleaching of carbon nanodots investigated by in situ optical methods. Physical Chemistry Chemical Physics, 2020, 22, 13398-13407.	1.3	21
22	Ultrafast spectroscopic investigation on fluorescent carbon nanodots: the role of passivation. Physical Chemistry Chemical Physics, 2019, 21, 16459-16467.	1.3	19
23	Highly Homogeneous Biotinylated Carbon Nanodots: Red-Emitting Nanoheaters as Theranostic Agents toward Precision Cancer Medicine. ACS Applied Materials & Interfaces, 2019, 11, 19854-19866.	4.0	61
24	Effect of Halogen Ions on the Photocycle of Fluorescent Carbon Nanodots. Journal of Carbon Research, 2019, 5, 64.	1.4	1
25	On the Colloidal Stability of Nitrogen-Rich Carbon Nanodots Aqueous Dispersions. Journal of Carbon Research, 2019, 5, 74.	1.4	13
26	Luminescence Efficiency of Si/SiO 2 Nanoparticles Produced by Laser Ablation. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800565.	0.8	3
27	Carbon Dots Dispersed on Graphene/SiO 2 /Si: A Morphological Study. Physica Status Solidi (A) Applications and Materials Science, 2019, 216, 1800559.	0.8	6
28	Photoinduced charge transfer from Carbon Dots to Graphene in solid composite. Thin Solid Films, 2019, 669, 620-624.	0.8	6
29	Î²-C₃N₄ Nanocrystals: Carbon Dots with Extraordinary Morphological, Structural, and Optical Homogeneity. Chemistry of Materials, 2018, 30, 1695-1700.	3.2	76
30	Enhancing the luminescence efficiency of silicon-nanocrystals by interaction with H⁺ ions. Physical Chemistry Chemical Physics, 2018, 20, 10445-10449.	1.3	10
31	Carbon Nanodots: A Reviewâ€”From the Current Understanding of the Fundamental Photophysics to the Full Control of the Optical Response. Journal of Carbon Research, 2018, 4, 67.	1.4	137
32	Tailoring the Emission Color of Carbon Dots through Nitrogen-Induced Changes of Their Crystalline Structure. Journal of Physical Chemistry C, 2018, 122, 19897-19903.	1.5	54
33	Disentangling size effects and spectral inhomogeneity in carbon nanodots by ultrafast dynamical hole-burning. Nanoscale, 2018, 10, 15317-15323.	2.8	33
34	One-pot synthesis of graphene quantum dots and simultaneous nanostructured self-assembly via a novel microwave-assisted method: impact on triazine removal and efficiency monitoring. RSC Advances, 2018, 8, 29939-29946.	1.7	35
35	The interaction of photoexcited carbon nanodots with metal ions disclosed down to the femtosecond scale. Nanoscale, 2017, 9, 11902-11911.	2.8	47
36	Design of Carbon Dots Photoluminescence through Organo-Functional Silane Grafting for Solid-State Emitting Devices. Scientific Reports, 2017, 7, 5469.	1.6	68

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37	Different natures of surface electronic transitions of carbon nanoparticles. Physical Chemistry Chemical Physics, 2017, 19, 22670-22677.	1.3	37
38	A collision timing monitor for SuperKEKB. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2017, 869, 95-106.	0.7	3
39	Characteristic Excitation Wavelength Dependence of Fluorescence Emissions in Carbon â€œQuantumâ€• Dots. Journal of Physical Chemistry C, 2017, 121, 28180-28186.	1.5	93
40	Nitrogen-doped carbon dots embedded in a SiO2 monolith for solid-state fluorescent detection of Cu2+ ions. Journal of Nanoparticle Research, 2017, 19, 1.	0.8	17
41	Ge-doped silica nanoparticles: production and characterisation. Optical Materials Express, 2016, 6, 2213.	1.6	4
42	Dual Luminescence, Interligand Decay, and Nonradiative Electronic Relaxation of Cyclometalated Iridium Complexes in Solution. Journal of Physical Chemistry C, 2016, 120, 16459-16469.	1.5	42
43	Controlling the oxidation processes of Zn nanoparticles produced by pulsed laser ablation in aqueous solution. Journal of Applied Physics, 2016, 120, .	1.1	7
44	Self-limiting and complete oxidation of silicon nanostructures produced by laser ablation in water. Journal of Applied Physics, 2016, 120, .	1.1	13
45	Luminescence mechanisms of defective ZnO nanoparticles. Physical Chemistry Chemical Physics, 2016, 18, 16237-16244.	1.3	89
46	Fluorescent nitrogen-rich carbon nanodots with an unexpected Î²-C₃N₄nanocrystalline structure. Journal of Materials Chemistry C, 2016, 4, 2598-2605.	2.7	53
47	Solvatochromism Unravels the Emission Mechanism of Carbon Nanodots. Journal of Physical Chemistry Letters, 2016, 7, 3419-3423.	2.1	179
48	Effect of thermal annealing on the luminescence of defective ZnO nanoparticles synthesized by pulsed laser ablation in water. Physica Status Solidi C: Current Topics in Solid State Physics, 2016, 13, 890-894.	0.8	4
49	Photoluminescence of Carbon Dots Embedded in a SiO2 Matrix. Materials Today: Proceedings, 2016, 3, S258-S265.	0.9	12
50	Observation of Ligand-Centred Fluorescence and Intramolecular Relaxation at Sub-Vibrational Time Scales. , 2016, , .		0
51	Oxidation of Zn nanoparticles probed by online optical spectroscopy during nanosecond pulsed laser ablation of a Zn plate in H2O. Applied Physics Letters, 2015, 107, .	1.5	16
52	Ligand-Centred Fluorescence and Electronic Relaxation Cascade at Vibrational Time Scales in Transition-Metal Complexes. Journal of Physical Chemistry Letters, 2015, 6, 4475-4480.	2.1	29
53	Effects of Pressure, Thermal Treatment, and O₂ Loading in MCM41, MSU-H, and MSU-F Mesoporous Silica Systems Probed by Raman Spectroscopy. Journal of Physical Chemistry C, 2015, 119, 27434-27441.	1.5	5
54	Aging of MCM41, MSU-H and MSU-F mesoporous systems investigated through the Raman spectroscopy. , 2014, , .		0

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55	Luminescent silicon nanocrystals produced by near-infrared nanosecond pulsed laser ablation in water. Applied Surface Science, 2014, 302, 62-65.	3.1	37
56	Real-time observation of the charge transfer to solvent dynamics. Nature Communications, 2013, 4, 2119.	5.8	62
57	Importance of Spin-Orbit Interaction for the Electron Spin Relaxation in Organic Semiconductors. Physical Review Letters, 2013, 110, 216602.	2.9	62
58	Ultrafast Solventâ€Assisted Electronic Level Crossing in 1â€Naphthol. Angewandte Chemie - International Edition, 2013, 52, 6871-6875.	7.2	24
59	Ultrafast Relaxation Dynamics of Osmiumâ€“Polypyridine Complexes in Solution. Journal of Physical Chemistry C, 2013, 117, 15958-15966.	1.5	35
60	The Role of Site-Specific Hydrogen Bonding Interactions in the Solvation Dynamics of N-Acetyltryptophanamide. Journal of Physical Chemistry B, 2012, 116, 10730-10738.	1.2	10
61	Polychromatic femtosecond fluorescence studies of metalâ€“polypyridine complexes in solution. Chemical Physics, 2012, 393, 51-57.	0.9	84
62	Unraveling exciton dynamics in amorphous silicon dioxide: Interpretation of the optical features from 8 to 11 eV. Physical Review B, 2011, 83, .	1.1	53
63	Effects induced by 4.7eV UV laser irradiation on pure silica core multimode optical fibers investigated by in situ optical absorption measurements. Journal of Non-Crystalline Solids, 2011, 357, 1985-1988.	1.5	3
64	Irradiation induced germanium lone pair centers in Ge-doped solâ€“gel SiO2: Luminescence lifetime and temperature dependence. Journal of Luminescence, 2010, 130, 1866-1871.	1.5	2
65	Generation and excitation of point defects in silica by synchrotron radiation above the absorption edge. Physical Review B, 2010, 81, .	1.1	29
66	Spectroscopic studies of the origin of radiation-induced degradation in phosphorus-doped optical fibers and preforms. Journal of Applied Physics, 2010, 108, .	1.1	20
67	Evidence of Delocalized Excitons in Amorphous Solids. Physical Review Letters, 2010, 105, 116401.	2.9	31
68	Optical properties of phosphorus-related point defects in silica fiber preforms. Physical Review B, 2009, 80, .	1.1	27
69	Inhomogeneous width of oxygen-deficient centers induced by electron irradiation of silica. Physical Review B, 2009, 79, .	1.1	7
70	Photoluminescence spectral dispersion as a probe of structural inhomogeneity in silica. Journal of Physics Condensed Matter, 2009, 21, 115803.	0.7	1
71	Room Temperature Instability of Eâ€²Î³ Centers Induced by Î³ Irradiation in Amorphous SiO2. Journal of Physical Chemistry A, 2009, 113, 1026-1032.	1.1	10
72	Temperature dependence of the generation and decay of Eâ€² centers induced in silica by 4.7eV laser radiation. Journal of Non-Crystalline Solids, 2009, 355, 1038-1041.	1.5	4

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73	In situ observation of Î²-ray induced UV optical absorption in a-SiO2: Radiation darkening and room temperature recovery. Journal of Non-Crystalline Solids, 2009, 355, 1042-1045.	1.5	3
74	10 keV X-ray irradiation effects on phosphorus-doped fibers and preforms: Electron spin resonance and optical studies. , 2009, , .		2
75	Homogeneous and inhomogeneous contributions to the luminescence linewidth of point defects in amorphous solids: Quantitative assessment based on time-resolved emission spectroscopy. Physical Review B, 2008, 78, .	1.1	28
76	Isoelectronic Series of Oxygen Deficient Centers in Silica: Experimental Estimation of Homogeneous and Inhomogeneous Spectral Widths. Journal of Physical Chemistry A, 2008, 112, 12104-12108.	1.1	5
77	Generation of defects in amorphous SiO₂assisted by two-step absorption on impurity sites. Journal of Physics Condensed Matter, 2008, 20, 275210.	0.7	18
78	Stability of Eâ€² centers induced by 4.7eV laser radiation in SiO2. Journal of Non-Crystalline Solids, 2007, 353, 522-525.	1.5	7
79	Role of diffusing molecular hydrogen on relaxation processes in Ge-doped glass. Journal of Non-Crystalline Solids, 2007, 353, 447-450.	1.5	3
80	Optical properties of Ge-oxygen deficient centers embedded in silica films. Journal of Non-Crystalline Solids, 2007, 353, 670-673.	1.5	3
81	Character of the Reaction between Molecular Hydrogen and a Silicon Dangling Bond in Amorphous SiO2. Journal of Physical Chemistry C, 2007, 111, 6663-6667.	1.5	19
82	Structural inhomogeneity of Ge-doped amorphous SiO2 probed by photoluminescence lifetime measurements under synchrotron radiation. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 934-937.	0.8	2
83	Optical absorption induced by UV laser radiation in Ge-doped amorphous silica probed by in situ spectroscopy. Physica Status Solidi C: Current Topics in Solid State Physics, 2007, 4, 1143-1146.	0.8	1
84	Ultraviolet-induced paramagnetic centers and absorption changes in singlemode Ge-doped optical fibers. Optics Express, 2006, 14, 5885.	1.7	9
85	Photochemical generation of Eâ€² centres from Siâ€“H in amorphous SiO2under pulsed ultraviolet laser radiation. Journal of Physics Condensed Matter, 2006, 18, 9967-9973.	0.7	16
86	Influence of hydrogen on paramagnetic defects induced by UV laser exposure in natural silica. Physica Status Solidi C: Current Topics in Solid State Physics, 2005, 2, 616-619.	0.8	5
87	In situobservation of the generation and annealing kinetics of E â€² centres induced in amorphous SiO2by 4.7 eV laser irradiation. Journal of Physics Condensed Matter, 2005, 17, 3837-3842.	0.7	17
88	Hydrogen-related conversion processes of Ge-related point defects in silica triggered by ultraviolet laser irradiation. Physical Review B, 2005, 72, .	1.1	14
89	H(II) Centers in natural silica under repeated UV laser irradiations. Journal of Non-Crystalline Solids, 2005, 351, 1770-1773.	1.5	3
90	Nd:YAG laser induced Eâ€² centers probed by in situ absorption measurements. Journal of Non-Crystalline Solids, 2005, 351, 1780-1783.	1.5	8

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91	Bleaching of optical activity induced by UV laser exposure in natural silica. Journal of Non-Crystalline Solids, 2004, 345-346, 433-437.	1.5	7
92	Growth of H(II) centers in natural silica after UV laser exposure. Journal of Non-Crystalline Solids, 2003, 322, 90-94.	1.5	9
93	UV-photoinduced defects in Ge-doped optical fibers. , 0, , .		0