Lorenzo Mangolini

List of Publications by Year
in descending order

68	3,284	257357 24	143943 57
papers	citations	h-index	g-index

72	72	72	3413
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-Yield Plasma Synthesis of Luminescent Silicon Nanocrystals. Nano Letters, 2005, 5, 655-659.	4.5	668
2	Silicon nanocrystals with ensemble quantum yields exceeding 60%. Applied Physics Letters, 2006, 88, 233116.	1.5	391
3	Plasmaâ€Assisted Synthesis of Silicon Nanocrystal Inks. Advanced Materials, 2007, 19, 2513-2519.	11.1	242
4	Thermal Properties of the Binaryâ€Filler Hybrid Composites with Graphene and Copper Nanoparticles. Advanced Functional Materials, 2020, 30, 1904008.	7.8	179
5	Radial structure of a low-frequency atmospheric-pressure glow discharge in helium. Applied Physics Letters, 2002, 80, 1722-1724.	1.5	150
6	Effects of current limitation through the dielectric in atmospheric pressure glows in helium. Journal Physics D: Applied Physics, 2004, 37, 1021-1030.	1.3	137
7	Selective nanoparticle heating: Another form of nonequilibrium in dusty plasmas. Physical Review E, 2009, 79, 026405.	0.8	121
8	Synthesis, properties, and applications of silicon nanocrystals. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 020801.	0.6	113
9	Plasma synthesis and liquid-phase surface passivation of brightly luminescent Si nanocrystals. Journal of Luminescence, 2006, 121, 327-334.	1.5	98
10	Colloidal Synthesis of Siliconâ€“Carbon Composite Material for Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2017, 56, 10780-10785.	7.2	94
11	Achieving spin-triplet exciton transfer between silicon and molecular acceptors for photon upconversion. Nature Chemistry, 2020, 12, 137-144.	6.6	85
12	A Non-Thermal Plasma Route to Plasmonic TiN Nanoparticles. Journal of Physical Chemistry C, 2017, 121, 2316-2322.	1.5	82
13	Silicon-Coreâ€“Carbon-Shell Nanoparticles for Lithium-Ion Batteries: Rational Comparison between Amorphous and Graphitic Carbon Coatings. Nano Letters, 2019, 19, 7236-7245.	4.5	75
14	Silicon nanocrystal production through non-thermal plasma synthesis: a comparative study between silicon tetrachloride and silane precursors. Nanotechnology, 2012, 23, 255604.	1.3	65
15	Plasmonic Coreâ€“Shell Zirconium Nitrideâ€“Silicon Oxynitride Nanoparticles. ACS Energy Letters, 2018, 3, 2349-2356.	8.8	51
16	Low activation energy for the crystallization of amorphous silicon nanoparticles. Nanoscale, 2014, 6, 1286-1294.	2.8	44
17	Two-dimensional space-time-resolved emission spectroscopy on atmospheric pressure glows in helium with impurities. Journal of Applied Physics, 2004, 96, 1835-1839.	1.1	40
18	On the nucleation and crystallization of nanoparticles in continuous-flow nonthermal plasma reactors. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2014, 32, .	0.6	40

#	Article	IF	Citations
19	Hollow silicon carbide nanoparticles from a non-thermal plasma process. Journal of Applied Physics, 2015, 117, .	1.1	37
20	Colloidal Synthesis of Siliconâ€“Carbon Composite Material for Lithiumâ€Ion Batteries. Angewandte Chemie, 2017, 129, 10920-10925.	1.6	36
21	A stable silicon anode based on the uniform dispersion of quantum dots in a polymer matrix. Journal of Power Sources, 2015, 273, 638-644.	4.0	33
22	Photochemistry of Plasmonic Titanium Nitride Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 21796-21804.	1.5	33
23	On the nonâ€thermal plasma synthesis of nickel nanoparticles. Plasma Processes and Polymers, 2018, 15, 1700104.	1.6	27
24	Plasma synthesis of group IV quantum dots for luminescence and photovoltaic applications. Pure and Applied Chemistry, 2008, 80, 1901-1908.	0.9	24
25	Tuning the reactivity and energy release rate of I2O5 based ternary thermite systems. Combustion and Flame, 2021, 228, 210-217.	2.8	23
26	Harnessing Plasma Environments for Ammonia Catalysis: Mechanistic Insights from Experiments and Large-Scale Ab Initio Molecular Dynamics. Journal of Physical Chemistry Letters, 2020, 11, 10469-10475.	2.1	22
27	Characterization of Siâ€“Ge alloy nanocrystals produced in a non-thermal plasma reactor. Materials Letters, 2013, 101, 76-79.	1.3	21
28	Tin nanoparticles as an effective conductive additive in silicon anodes. Scientific Reports, 2016, 6, 30952.	1.6	21
29	Silicon Nanoparticles for the Reactivity and Energetic Density Enhancement of Energetic-Biocidal Mesoparticle Composites. ACS Applied Materials & Interfaces, 2021, 13, 458-467.	4.0	21
30	Bidirectional triplet exciton transfer between silicon nanocrystals and perylene. Chemical Science, 2021, 12, 6737-6746.	3.7	19
31	Deposition of vertically oriented carbon nanofibers in atmospheric pressure radio frequency discharge. Journal of Applied Physics, 2006, 99, 024310.	1.1	18
32	Critical barriers to the large scale commercialization of silicon-containing batteries. Nanoscale Advances, 2020, 2, 4368-4389.	2.2	18
33	Monitoring non-thermal plasma processes for nanoparticle synthesis. Journal Physics D: Applied Physics, 2017, 50, 373003.	1.3	17
34	Graphitization of Carbon Particles in a Non-thermal Plasma Reactor. Plasma Chemistry and Plasma Processing, 2018, 38, 683-694.	1.1	15
35	Silicon-carbon composites for lithium-ion batteries: A comparative study of different carbon deposition approaches. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2018, 36, .	0.6	15
36	Tin disulfide segregation on CZTS films sulfurized at high pressure. Materials Letters, 2016, 165, 41-44.	1.3	14

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37	Electron emission from particles strongly affects the electron energy distribution in dusty plasmas. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2020, 38, .	0.9	14
38	Grain-to-Grain Compositional Variations and Phase Segregation in Copperâ€“Zincâ€“Tinâ€“Sulfide Films. ACS Applied Materials & Interfaces, 2016, 8, 22971-22976.	4.0	13
39	Energetic characteristics of hydrogenated amorphous silicon nanoparticles. Chemical Engineering Journal, 2022, 430, 133140.	6.6	13
40	Spray pyrolysis of yolkâ€“shell particles and their use for anodes in lithium-ion batteries. Electrochemistry Communications, 2015, 53, 1-5.	2.3	12
41	Core/shell silicon/polyaniline particles via in-flight plasma-induced polymerization. Journal Physics D: Applied Physics, 2015, 48, 314009.	1.3	11
42	In situ monitoring of hydrogen desorption from silicon nanoparticles dispersed in a nonthermal plasma. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2016, 34, .	0.6	11
43	Airâ€Stable Silicon Nanocrystalâ€Based Photon Upconversion. Advanced Optical Materials, 2021, 9, 2100453.	3.6	11
44	Structural homogenization and cation ordering in CZTS films during sulfurization as probed via in-situ Raman. Thin Solid Films, 2019, 684, 21-30.	0.8	10
45	Plasmonic Coreâ€“Shell Silicon Carbideâ€“Graphene Nanoparticles. ACS Omega, 2019, 4, 10089-10093.	1.6	10
46	Synthesis, characterization, and cytocompatibility of yttria stabilized zirconia nanopowders for creating a window to the brain. Journal of Biomedical Materials Research - Part B Applied Biomaterials, 2020, 108, 925-938.	1.6	10
47	Stabilizing the Plasmonic Response of Titanium Nitride Nanocrystals with a Silicon Oxynitride Shell: Implications for Refractory Optical Materials. ACS Applied Nano Materials, 2020, 3, 4504-4511.	2.4	10
48	Spray pyrolysis of CZTS nanoplatelets. Chemical Communications, 2014, 50, 11366-11369.	2.2	8
49	Langmuir probe characterisation of an Arâ€“H₂ non-thermal plasma loaded with carbon nanoparticles. Plasma Sources Science and Technology, 2018, 27, 104003.	1.3	7
50	Thermoelectric performance of silicon with oxide nanoinclusions. Materials Research Letters, 2018, 6, 419-425.	4.1	7
51	Efficient facemask decontamination via forced ozone convection. Scientific Reports, 2021, 11, 12263.	1.6	7
52	Controlled growth of silicon particles via plasma pulsing and their application as battery material. Journal Physics D: Applied Physics, 2022, 55, 094002.	1.3	7
53	Application of machine learning for the estimation of electron energy distribution from optical emission spectra. Journal Physics D: Applied Physics, 2021, 54, 265202.	1.3	5
54	Oxide-induced grain growth in CZTS nanoparticle coatings. RSC Advances, 2017, 7, 25575-25581.	1.7	4

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55	Spray pyrolysis of yttria-stabilized zirconia nanoparticles and their densification into bulk transparent windows. Journal of Nanoparticle Research, 2020, 22, 1.	0.8	4
56	Low temperature radical initiated hydrosilylation of silicon quantum dots. Faraday Discussions, 2020, 222, 190-200.	1.6	3
57	Interaction Between a Low-Temperature Plasma and Graphene: An in situ Raman Thermometry Study. Physical Review Applied, 2021, 15, .	1.5	3
58	Laserâ€induced cavitation in plasmonic nanoparticle solutions: A comparative study between gold and titanium nitride. Journal of Biomedical Materials Research - Part A, 2021, 109, 2483-2492.	2.1	3
59	Giant low-temperature anharmonicity in silicon nanocrystals. Physical Review Materials, 2020, 4, .	0.9	3
60	Crystallization Kinetics of Plasma-Produced Amorphous Silicon Nanoparticles. Materials Research Society Symposia Proceedings, 2013, 1536, 213-218.	0.1	2
61	High-Yield Synthesis of Luminescent Silicon Quantum Dots in a Continuous Flow Nonthermal Plasma Reactor. Materials Research Society Symposia Proceedings, 2005, 862, 431.	0.1	1
62	Single precursor synthesis of copper sulfide nanocrystals using aerosol spray pyrolysis. MRS Communications, 2013, 3, 57-60.	0.8	1
63	Enhanced thermoelectric ZT in the tails of the Fermi distribution via electron filtering by nanoinclusions: Model electron transport in nanocomposites. Physical Review Materials, 2022, 6, .	0.9	1
64	Inside Front Cover: Plasma-Assisted Synthesis of Silicon Nanocrystal Inks (Adv. Mater. 18/2007). Advanced Materials, 2007, 19, NA-NA.	11.1	0
65	Silicon Quantum Dots-Carbon Nanotube Composite as Anode Material for Lithium Ion Battery. Materials Research Society Symposia Proceedings, 2013, 1540, 3801.	0.1	0
66	(Invited) Non-Thermal Plasmas for the Production of Sustainable Functional Materials. ECS Transactions, 2017, 77, 63-69.	0.3	0
67	Plasma Synthesis of Nanomaterials. World Scientific Series in Nanoscience and Nanotechnology, 2019, , 229-255.	0.1	0
68	Nanocrystalline Yttria-Stabilized Zirconia Ceramics for Cranial Window Applications. ACS Applied Bio Materials, 2022, 5, 2664-2675.	2.3	0