Lorenzo Mangolini

List of Publications by Year
in descending order

68 papers	3,284 citations	257357 24 h-index	143943 57 g-index
72 all docs	72 docs citations	72 times ranked	3413 citing authors

#	Article	IF	Citations
1	Energetic characteristics of hydrogenated amorphous silicon nanoparticles. Chemical Engineering Journal, 2022, 430, 133140.	6.6	13
2	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
3	Nanocrystalline Yttria-Stabilized Zirconia Ceramics for Cranial Window Applications. ACS Applied Bio Materials, 2022, 5, 2664-2675.	2.3	0
4	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
5	Interaction Between a Low-Temperature Plasma and Graphene: An <i>in situ</i> Raman Thermometry Study. Physical Review Applied, 2021, 15, .	1.5	3
6	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
7	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
8	Airâ€Stable Silicon Nanocrystalâ€Based Photon Upconversion. Advanced Optical Materials, 2021, 9, 2100453.	3.6	11
9	Tuning the reactivity and energy release rate of I2O5 based ternary thermite systems. Combustion and Flame, 2021, 228, 210-217.	2.8	23
10	Efficient facemask decontamination via forced ozone convection. Scientific Reports, 2021, 11, 12263.	1.6	7
11	Bidirectional triplet exciton transfer between silicon nanocrystals and perylene. Chemical Science, 2021, 12, 6737-6746.	3.7	19
12	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
13	Thermal Properties of the Binaryâ€Filler Hybrid Composites with Graphene and Copper Nanoparticles. Advanced Functional Materials, 2020, 30, 1904008.	7.8	179
14	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
15	Achieving spin-triplet exciton transfer between silicon and molecular acceptors for photon upconversion. Nature Chemistry, 2020, 12, 137-144.	6.6	85
16	Harnessing Plasma Environments for Ammonia Catalysis: Mechanistic Insights from Experiments and Large-Scale <i>Ab Initio</i> Molecular Dynamics. Journal of Physical Chemistry Letters, 2020, 11, 10469-10475.	2.1	22
17	Critical barriers to the large scale commercialization of silicon-containing batteries. Nanoscale Advances, 2020, 2, 4368-4389.	2.2	18
18	Spray pyrolysis of yttria-stabilized zirconia nanoparticles and their densification into bulk transparent windows. Journal of Nanoparticle Research, 2020, 22, 1.	0.8	4

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19	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
20	Low temperature radical initiated hydrosilylation of silicon quantum dots. Faraday Discussions, 2020, 222, 190-200.	1.6	3
21	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
22	Giant low-temperature anharmonicity in silicon nanocrystals. Physical Review Materials, 2020, 4, .	0.9	3
23	Photochemistry of Plasmonic Titanium Nitride Nanocrystals. Journal of Physical Chemistry C, 2019, 123, 21796-21804.	1.5	33
24	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
25	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
26	Plasmonic Coreâ€“Shell Silicon Carbideâ€“Graphene Nanoparticles. ACS Omega, 2019, 4, 10089-10093.	1.6	10
27	Plasma Synthesis of Nanomaterials. World Scientific Series in Nanoscience and Nanotechnology, 2019, , 229-255.	0.1	0
28	Graphitization of Carbon Particles in a Non-thermal Plasma Reactor. Plasma Chemistry and Plasma Processing, 2018, 38, 683-694.	1.1	15
29	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
30	On the nonâ€thermal plasma synthesis of nickel nanoparticles. Plasma Processes and Polymers, 2018, 15, 1700104.	1.6	27
31	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
32	Plasmonic Coreâ€“Shell Zirconium Nitrideâ€“Silicon Oxynitride Nanoparticles. ACS Energy Letters, 2018, 3, 2349-2356.	8.8	51
33	Thermoelectric performance of silicon with oxide nanoinclusions. Materials Research Letters, 2018, 6, 419-425.	4.1	7
34	A Non-Thermal Plasma Route to Plasmonic TiN Nanoparticles. Journal of Physical Chemistry C, 2017, 121, 2316-2322.	1.5	82
35	Oxide-induced grain growth in CZTS nanoparticle coatings. RSC Advances, 2017, 7, 25575-25581.	1.7	4
36	Colloidal Synthesis of Siliconâ€“Carbon Composite Material for Lithiumâ€Ion Batteries. Angewandte Chemie, 2017, 129, 10920-10925.	1.6	36

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37	Colloidal Synthesis of Siliconâ€“Carbon Composite Material for Lithiumâ€Ion Batteries. Angewandte Chemie - International Edition, 2017, 56, 10780-10785.	7.2	94
38	Monitoring non-thermal plasma processes for nanoparticle synthesis. Journal Physics D: Applied Physics, 2017, 50, 373003.	1.3	17
39	(Invited) Non-Thermal Plasmas for the Production of Sustainable Functional Materials. ECS Transactions, 2017, 77, 63-69.	0.3	0
40	<i>In situ</i> 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
41	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
42	Tin nanoparticles as an effective conductive additive in silicon anodes. Scientific Reports, 2016, 6, 30952.	1.6	21
43	Tin disulfide segregation on CZTS films sulfurized at high pressure. Materials Letters, 2016, 165, 41-44.	1.3	14
44	Core/shell silicon/polyaniline particles via in-flight plasma-induced polymerization. Journal Physics D: Applied Physics, 2015, 48, 314009.	1.3	11
45	Spray pyrolysis of yolkâ€“shell particles and their use for anodes in lithium-ion batteries. Electrochemistry Communications, 2015, 53, 1-5.	2.3	12
46	Hollow silicon carbide nanoparticles from a non-thermal plasma process. Journal of Applied Physics, 2015, 117, .	1.1	37
47	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
48	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
49	Low activation energy for the crystallization of amorphous silicon nanoparticles. Nanoscale, 2014, 6, 1286-1294.	2.8	44
50	Spray pyrolysis of CZTS nanoplatelets. Chemical Communications, 2014, 50, 11366-11369.	2.2	8
51	Characterization of Siâ€“Ge alloy nanocrystals produced in a non-thermal plasma reactor. Materials Letters, 2013, 101, 76-79.	1.3	21
52	Synthesis, properties, and applications of silicon nanocrystals. Journal of Vacuum Science and Technology B:Nanotechnology and Microelectronics, 2013, 31, 020801.	0.6	113
53	Single precursor synthesis of copper sulfide nanocrystals using aerosol spray pyrolysis. MRS Communications, 2013, 3, 57-60.	0.8	1
54	Silicon Quantum Dots-Carbon Nanotube Composite as Anode Material for Lithium Ion Battery. Materials Research Society Symposia Proceedings, 2013, 1540, 3801.	0.1	0

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55	Crystallization Kinetics of Plasma-Produced Amorphous Silicon Nanoparticles. Materials Research Society Symposia Proceedings, 2013, 1536, 213-218.	0.1	2
56	Silicon nanocrystal production through non-thermal plasma synthesis: a comparative study between silicon tetrachloride and silane precursors. Nanotechnology, 2012, 23, 255604.	1.3	65
57	Selective nanoparticle heating: Another form of nonequilibrium in dusty plasmas. Physical Review E, 2009, 79, 026405.	0.8	121
58	Plasma synthesis of group IV quantum dots for luminescence and photovoltaic applications. Pure and Applied Chemistry, 2008, 80, 1901-1908.	0.9	24
59	Plasmaâ€Assisted Synthesis of Silicon Nanocrystal Inks. Advanced Materials, 2007, 19, 2513-2519.	11.1	242
60	Inside Front Cover: Plasma-Assisted Synthesis of Silicon Nanocrystal Inks (Adv. Mater. 18/2007). Advanced Materials, 2007, 19, NA-NA.	11.1	0
61	Silicon nanocrystals with ensemble quantum yields exceeding 60%. Applied Physics Letters, 2006, 88, 233116.	1.5	391
62	Plasma synthesis and liquid-phase surface passivation of brightly luminescent Si nanocrystals. Journal of Luminescence, 2006, 121, 327-334.	1.5	98
63	Deposition of vertically oriented carbon nanofibers in atmospheric pressure radio frequency discharge. Journal of Applied Physics, 2006, 99, 024310.	1.1	18
64	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
65	High-Yield Plasma Synthesis of Luminescent Silicon Nanocrystals. Nano Letters, 2005, 5, 655-659.	4.5	668
66	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
67	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
68	Radial structure of a low-frequency atmospheric-pressure glow discharge in helium. Applied Physics Letters, 2002, 80, 1722-1724.	1.5	150