Luca Mercatelli

List of Publications by Year
in descending order

82 papers	1,924 citations	279487 23 h-index	276539 41 g-index
84 all docs	84 docs citations	84 times ranked	1529 citing authors

#	Article	IF	Citations
1	Sky radiance and spectral gradient are orienting cues for the sandhopperTalitrus saltator(Crustacea, Amphipoda). Journal of Experimental Biology, 2021, 224, .	0.8	3
2	Optical and Transport Properties of Metalâ€“Oil Nanofluids for Thermal Solar Industry: Experimental Characterization, Performance Assessment, and Molecular Dynamics Insights. ACS Sustainable Chemistry and Engineering, 2021, 9, 4194-4205.	3.2	10
3	Efficient Optical Limiting in Carbon-Nanohorn Suspensions. Energies, 2021, 14, 2074.	1.6	2
4	Spectral emittance of ceramics for high temperature solar receivers. Solar Energy, 2021, 222, 74-83.	2.9	18
5	WSe₂ Nanosheets Synthesized by a Solvothermal Process as Advanced Nanofluids for Thermal Solar Energy. ACS Sustainable Chemistry and Engineering, 2020, 8, 1627-1636.	3.2	20
6	Specializations in the compound eye of Talitrus saltator (Crustacea, Amphipoda). Journal of Comparative Physiology A: Neuroethology, Sensory, Neural, and Behavioral Physiology, 2020, 206, 711-723.	0.7	5
7	Optical Limiting of Carbon Nanohorn-Based Aqueous Nanofluids: A Systematic Study. Nanomaterials, 2020, 10, 2160.	1.9	7
8	A Comprehensive Physical Profile for Aqueous Dispersions of Carbon Derivatives as Solar Working Fluids. Applied Sciences (Switzerland), 2020, 10, 528.	1.3	4
9	Exfoliated graphene oxide-based nanofluids with enhanced thermal and optical properties for solar collectors in concentrating solar power. Journal of Molecular Liquids, 2020, 306, 112862.	2.3	32
10	An overview of ultra-refractory ceramics for thermodynamic solar energy generation at high temperature. Renewable Energy, 2019, 133, 1257-1267.	4.3	35
11	Optical and dielectric properties of ethylene glycol-based nanofluids containing nanodiamonds with various purities. Powder Technology, 2019, 356, 508-516.	2.1	18
12	Magnetic-field tunability of optical properties in colloidal suspensions of goethite (Î±-FeOOH) nanorods. Optical Materials, 2019, 96, 109303.	1.7	3
13	Comparative study of different functionalized graphene-nanoplatelet aqueous nanofluids for solar energy applications. Renewable Energy, 2019, 141, 791-801.	4.3	24
14	Round Robin Test for the comparison of spectral emittance measurement apparatuses. Solar Energy Materials and Solar Cells, 2019, 191, 476-485.	3.0	15
15	Ultra-high temperature porous graded ceramics for solar energy applications. Journal of the European Ceramic Society, 2019, 39, 72-78.	2.8	16
16	Optical characterization of hafnium boride and hafnium carbide-based ceramics for solar energy receivers. Solar Energy, 2018, 169, 111-119.	2.9	24
17	Graphite/diamond ethylene glycol-nanofluids for solar energy applications. Renewable Energy, 2018, 126, 692-698.	4.3	43
18	NIR transmittance tuneability under a magnetic field of colloidal suspensions of goethite (Î±-FeOOH) nanorods. RSC Advances, 2017, 7, 12429-12436.	1.7	8

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19	Titanium diboride ceramics for solar thermal absorbers. Solar Energy Materials and Solar Cells, 2017, 169, 313-319.	3.0	69
20	Lanthanum hexaboride for solar energy applications. Scientific Reports, 2017, 7, 718.	1.6	46
21	Optical CAD Utilization for the Design and Testing of a LED Streetlamp. Materials, 2017, 10, 985.	1.3	1
22	Processing, Mechanical and Optical Properties of Additive-Free ZrC Ceramics Prepared by Spark Plasma Sintering. Materials, 2016, 9, 489.	1.3	9
23	Process and composition dependence of optical properties of zirconium, hafnium and tantalum borides for solar receiver applications. Solar Energy Materials and Solar Cells, 2016, 155, 368-377.	3.0	33
24	Optical properties of dense zirconium and tantalum diborides for solar thermal absorbers. Renewable Energy, 2016, 91, 340-346.	4.3	46
25	Compositional dependence of optical properties of zirconium, hafnium and tantalum carbides for solar absorber applications. Solar Energy, 2016, 131, 199-207.	2.9	44
26	Design and test of a new facility for assessing spectral normal emittance of solid materials at high temperature. , 2016, , .		2
27	Led Streetlamp Only with Reflection Optics. , 2015, , .		0
28	Facility for assessing spectral normal emittance of solid materials at high temperature. Applied Optics, 2015, 54, 8700.	2.1	14
29	Optical properties of black and white ZrO2 for solar receiver applications. Solar Energy Materials and Solar Cells, 2015, 140, 477-482.	3.0	33
30	Optical design of a light-emitting diode lamp for a maritime lighthouse. Applied Optics, 2015, 54, 3252.	2.1	13
31	Mirror Surface Check on Solar Troughs by Optical Profilometry. Energy Procedia, 2014, 57, 2819-2827.	1.8	3
32	Implementation and Test of a LED-Based Lamp for a Lighthouse. International Journal of Photoenergy, 2014, 2014, 1-6.	1.4	1
33	Mirrors array for a solar furnace: Optical analysis and simulation results. Renewable Energy, 2014, 63, 263-271.	4.3	12
34	Optical properties of boride ultrahigh-temperature ceramics for solar thermal absorbers. Journal of Photonics for Energy, 2014, 4, 045599.	0.8	21
35	Optical test procedures for solar components. , 2014, , .		0
36	Tantalum diboride-based ceramics for bulk solar absorbers. Solar Energy Materials and Solar Cells, 2014, 130, 208-216.	3.0	42

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37	Optical damage tests on reflecting materials for solar applications. , 2014, , .		0
38	Software tools for optical design of solar plants. , 2014, , .		0
39	Profile control on solar parabolic troughs. , 2014, , .		1
40	New sustainable source for traffic signalling. , 2014, , .		0
41	Ultra-refractory Diboride Ceramics for Solar Plant Receivers. Energy Procedia, 2014, 49, 468-477.	1.8	15
42	Optical Damage Tests on Reflecting Materials for Solar Applications Using Concentrated Sunlight. Energy Procedia, 2014, 57, 2848-2857.	1.8	2
43	Do sandhoppers use the skylight polarization as a compass cue?. Animal Behaviour, 2013, 86, 427-434.	0.8	7
44	Suitability of ultra-refractory diboride ceramics as absorbers for solar energy applications. Solar Energy Materials and Solar Cells, 2013, 109, 8-16.	3.0	80
45	Porous and dense hafnium and zirconium ultra-high temperature ceramics for solar receivers. Optical Materials, 2013, 36, 163-168.	1.7	60
46	Measurement uncertainty in the profile detection on solar troughs. , 2013, , .		1
47	Solar Divergence Collimators for Optical Characterisation of Solar Components. International Journal of Photoenergy, 2013, 2013, 1-10.	1.4	10
48	New Strategies and Simulation Tools to Optically Design a Field of Heliostats. International Journal of Photoenergy, 2013, 2013, 1-7.	1.4	1
49	Simple Methods to Approximate CPC Shape to Preserve Collection Efficiency. International Journal of Photoenergy, 2012, 2012, 1-7.	1.4	7
50	Fat emulsions as diffusive reference standards for tissue simulating phantoms?. Applied Optics, 2012, 51, 7176.	0.9	30
51	The skylight gradient of luminance helps sandhoppers in sun and moon identification. Journal of Experimental Biology, 2012, 215, 2814-2819.	0.8	17
52	Evaluation of Surface Slope Irregularity in Linear Parabolic Solar Collectors. International Journal of Photoenergy, 2012, 2012, 1-6.	1.4	15
53	Spectrally selective ultra-high temperature ceramic absorbers for high-temperature solar plants. Journal of Renewable and Sustainable Energy, 2012, 4, .	0.8	76
54	Carbon nanohorn-based nanofluids: characterization of the spectral scattering albedo. Nanoscale Research Letters, 2012, 7, 96.	3.1	30

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55	Colorimetric comparison of light-filtering intraocular lenses and human crystalline lenses at various ages. Journal of Cataract and Refractive Surgery, 2011, 37, 758-762.	0.7	7
56	Potential of carbon nanohorn-based suspensions for solar thermal collectors. Solar Energy Materials and Solar Cells, 2011, 95, 2994-3000.	3.0	182
57	Ultra-refractory ceramics for high-temperature solar absorbers. Scripta Materialia, 2011, 65, 775-778.	2.6	73
58	Absorption and scattering properties of carbon nanohorn-based nanofluids for direct sunlight absorbers. Nanoscale Research Letters, 2011, 6, 282.	3.1	109
59	Optical collection efficiency and orientation of a solar trough medium-power plant installed in Italy. Renewable Energy, 2011, 36, 2341-2347.	4.3	31
60	Optical characterisation of Carbon-Nanohorn based nanofluids for solar energy and life science applications. , 2011, , .		4
61	Pointing Sensors and Sun Tracking Techniques. International Journal of Photoenergy, 2011, 2011, 1-9.	1.4	17
62	Hafnium and tantalum carbides for high temperature solar receivers. Journal of Renewable and Sustainable Energy, 2011, 3, .	0.8	64
63	Intrinsic spectral selectivity in ultra-high temperature ceramics for solar applications. , 2011, , .		2
64	Innovative flooded mask for a well-corrected vision both under water and above water. , 2010, , .		0
65	Photoresponses of the Compound Eye of the Sandhopper Talitrus saltator (Crustacea,) Tj ETQq1 1 0.784314 rgBT /Overlock 1	0.7	20
66	Flooded mask for underwater and above-water vision. Applied Optics, 2010, 49, 6134.	2.1	0
67	Carbon nanohorns-based nanofluids as direct sunlight absorbers. Optics Express, 2010, 18, 5179.	1.7	189
68	Seawater Ca2+ concentration influences solar orientation in Talitrus saltator (Crustacea,) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 222 Td	0.8	3
69	Difference in skylight intensity is a new celestial cue for sandhopper orientation (Amphipoda,) Tj ETQq1 1 0.784314 rgBT /Overlock 1	0.8	22
70	Indoor illumination by solar light collectors. Lighting Research and Technology, 2008, 40, 323-332.	1.2	23
71	Particles size measurement by spectrophotometric method. , 2007, , .		0
72	Profile detection by projection of coloured patterns. , 2007, , .		0

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73	Moon orientation on moonless nights. Animal Behaviour, 2007, 73, 453-456.	0.8	11
74	AcrySof Natural intraocular lens optical characteristics during and after different doses of ultraviolet-visible light illumination. Journal of Cataract and Refractive Surgery, 2006, 32, 1961-1965.	0.7	3
75	Solar internal lighting using optical collectors and fibers. , 2006, , .		8
76	Plane development of lateral surfaces for inspection systems. , 2006, , .		0
77	Green land and blue sea: a coloured landscape in the orientation of the sandhopper Talitrus saltator (Montagu) (Amphipoda, Talitridae). Journal of Experimental Biology, 2006, 209, 2509-2514.	0.8	14
78	Mirror shape detection by reflection grating moire method with optical design validation. , 2005, , .		6
79	Moon orientation in adult and young sandhoppers under artificial light. Proceedings of the Royal Society B: Biological Sciences, 2005, 272, 2189-2194.	1.2	28
80	Optical characterization of a radiochromic film by total reflectance and transmittance measurements. Medical Physics, 2004, 31, 2147-2154.	1.6	12
81	Scattering and absorption properties of carbon nanohorn-based nanofluids for solar energy applications. Journal of the European Optical Society-Rapid Publications, 0, 6, .	0.9	22
82	Ultra-High Temperature Ceramics for solar receivers: spectral and high-temperature emittance characterization. Journal of the European Optical Society-Rapid Publications, 0, 7, .	0.9	40