Mario Marchetti

List of Publications by Year
in descending order

88 papers	2,948 citations	218677 26 h-index	168389 53 g-index
89 all docs	89 docs citations	89 times ranked	2580 citing authors

#	Article	IF	Citations
1	X-Band microwave characterization of carbon-based nanocomposite material, absorption capability comparison and RAS design simulation. Composites Science and Technology, 2010, 70, 400-409.	7.8	429
2	Synthesis and electromagnetic characterization of frequency selective radar absorbing materials using carbon nanopowders. Carbon, 2014, 77, 756-774.	10.3	289
3	Electromagnetic shielding performance of carbon foams. Carbon, 2012, 50, 1972-1980.	10.3	268
4	Broadband Electromagnetic Absorbers Using Carbon Nanostructure-Based Composites. IEEE Transactions on Microwave Theory and Techniques, 2011, 59, 2633-2646.	4.6	225
5	Electromagnetic characterization and shielding effectiveness of concrete composite reinforced with carbon nanotubes in the mobile phones frequency band. Materials Science and Engineering B: Solid-State Materials for Advanced Technology, 2014, 188, 119-129.	3.5	103
6	Optimization of Multilayer Shields Made of Composite Nanostructured Materials. IEEE Transactions on Electromagnetic Compatibility, 2012, 54, 60-69.	2.2	85
7	Nanoparticles for solid rocket propulsion. Journal of Physics Condensed Matter, 2006, 18, S1991-S2005.	1.8	84
8	Nanostructured composite materials for electromagnetic interference shielding applications. Acta Astronautica, 2011, 69, 747-757.	3.2	83
9	Broadband electromagnetic characterization of carbon foam to metal contact. Carbon, 2014, 68, 149-158.	10.3	80
10	Ballistic and electromagnetic shielding behaviour of multifunctional Kevlar fiber reinforced epoxy composites modified by carbon nanotubes. Carbon, 2016, 104, 141-156.	10.3	79
11	Experimental study of impact resistance in multi-walled carbon nanotube reinforced epoxy. Composite Structures, 2013, 99, 62-68.	5.8	70
12	Electromagnetic shielding of thermal protection system for hypersonic vehicles. Acta Astronautica, 2013, 87, 30-39.	3.2	66
13	Reduction of satellite electromagnetic scattering by carbon nanostructured multilayers. Acta Astronautica, 2013, 88, 61-73.	3.2	66
14	Measurement of Electromagnetic Field Attenuation by Building Walls in the Mobile Phone and Satellite Navigation Frequency Bands. IEEE Antennas and Wireless Propagation Letters, 2015, 14, 698-702.	4.0	60
15	Carbon foam electromagnetic mm-wave absorption in reverberation chamber. Carbon, 2019, 144, 63-71.	10.3	57
16	Electromagnetic properties of carbon nanotube reinforced concrete composites for frequency selective shielding structures. Construction and Building Materials, 2017, 131, 267-277.	7.2	56
17	Matterâ€™s Electromagnetic Signature Reproduction by Graded-Dielectric Multilayer Assembly. IEEE Transactions on Microwave Theory and Techniques, 2017, 65, 2801-2809.	4.6	44
18	Determination of the electrical conductivity of carbon/carbon at high microwave frequencies. Carbon, 2013, 54, 76-85.	10.3	42

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19	Degradation of the surfaces exposed to the space environment. Acta Astronautica, 2007, 60, 166-174.	3.2	36
20	Electromagnetic characterization of advanced nanostructured materials and multilayer design optimization for metrological and low radar observability applications. Acta Astronautica, 2017, 134, 33-40.	3.2	36
21	A probabilistic sizing tool and Monte Carlo analysis for entry vehicle ablative thermal protection systems. Acta Astronautica, 2010, 66, 821-835.	3.2	32
22	Elasto-plastic behavior of thermoplastic composite laminates under cyclic loading. Composite Structures, 1995, 32, 375-382.	5.8	31
23	A new technology for production of high thickness carbon/carbon composites for launchers application. Acta Astronautica, 2016, 128, 277-285.	3.2	31
24	Tunable nanostructured composite with built-in metallic wire-grid electrode. AIP Advances, 2013, 3, .	1.3	29
25	Outgassing effect in polymeric composites exposed to space environment thermal-vacuum conditions. Acta Astronautica, 2020, 170, 466-471.	3.2	29
26	Advanced Radar Absorbing Ceramic-Based Materials for Multifunctional Applications in Space Environment. Materials, 2018, 11, 1730.	2.9	28
27	Temperature, atomic oxygen and outgassing effects on dielectric parameters and electrical properties of nanostructured composite carbon-based materials. Acta Astronautica, 2012, 76, 127-135.	3.2	24
28	Stochastic analysis of the vibrations of an uncertain composite truss for space applications. Composites Science and Technology, 2006, 66, 273-282.	7.8	23
29	Electromagnetic Shielding of Building Walls: From Roman times to the present age. IEEE Antennas and Propagation Magazine, 2016, 58, 20-31.	1.4	23
30	Process simulation for a large composite aeronautic beam by resin transfer molding. Composites Part B: Engineering, 2014, 57, 47-55.	12.0	22
31	Electromagnetic Characterization of Materials by Vector Network Analyzer Experimental Setup. , 2017, , 195-236.		22
32	On closed form solution for the elastic stress field around holes in orthotropic composite plates under in-plane stress conditions. Composite Structures, 1993, 25, 139-156.	5.8	21
33	Coating effects on thermal properties of carbon carbon and carbon silicon carbide composites for space thermal protection systems. Acta Astronautica, 2014, 99, 276-282.	3.2	21
34	Evaluation of atomic oxygen effects on nano-coated carbon-carbon structures for re-entry applications. Acta Astronautica, 2019, 161, 276-282.	3.2	21
35	Microdamage effects on the overall response of long fibre/metal-matrix composites. Composites, 1994, 25, 575-582.	0.7	20
36	Shielding effectiveness of carbon nanotube reinforced concrete composites by reverberation chamber measurements. , 2015, , .		19

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37	Thermal analysis of advanced plate structures based on ceramic coating on carbon/carbon substrates for aerospace Re-Entry Re-Useable systems. Acta Astronautica, 2021, 183, 153-161.	3.2	18
38	A computational procedure to calculate stress-strain field around simple shape holes in composite laminates. Computers and Structures, 1994, 53, 1167-1179.	4.4	17
39	Designing complex shape filament-wound structures. Composites Manufacturing, 1992, 3, 53-58.	0.2	16
40	Atomic Oxygen Degradation of Polymeric Thin Films in Low Earth Orbit. AIAA Journal, 2003, 41, 1525-1534.	2.6	16
41	Densification of High Thickness C/C Composites by Chemical Vapor Infiltration. Procedia Engineering, 2015, 109, 381-389.	1.2	14
42	Electromagnetic absorption properties of spacecraft and space debris. Acta Astronautica, 2017, 133, 128-135.	3.2	14
43	CVD nano-coating of carbon composites for space materials atomic oxygen shielding. Procedia Structural Integrity, 2017, 3, 208-216.	0.8	14
44	Atomic Force Microscopy Characterization of Carbon Nanotubes. Journal of Physics: Conference Series, 2007, 61, 99-104.	0.4	13
45	Prediction of failure envelopes of composite tubes subjected to biaxial loadings. Acta Astronautica, 1996, 39, 355-368.	3.2	12
46	Carbon/carbon high thickness shell for advanced space vehicles. International Journal of Heat and Mass Transfer, 2019, 128, 613-622.	4.8	12
47	Space Environment Exposure Effects on Ceramic Coating for Thermal Protection Systems. Journal of Spacecraft and Rockets, 2021, 58, 1387-1393.	1.9	11
48	Advanced concrete materials for EMI reduction in protected environment and IEMI threats suppression. , 2015, , .		10
49	Analysis of the effects of simulated synergistic LEO environment on solar panels. Acta Astronautica, 2007, 60, 175-185.	3.2	9
50	Modeling of Moisture Diffusion in Carbon Braided Composites. International Journal of Aerospace Engineering, 2008, 2008, 1-10.	0.9	9
51	Effects of moisture and thermal ageing on structural stability of sandwich panels. Acta Astronautica, 1984, 11, 489-508.	3.2	8
52	A new conceptual design approach for habitative space modules. Acta Astronautica, 2014, 97, 1-8.	3.2	7
53	Modeling of microwave absorbing structure using winning particle optimization applied on electrically conductive nanostructured composite material. , 2010, , .		6
54	Prediction of thermal expansion coefficients of sandwiches using finite elements methods validated by experimental test results. Acta Astronautica, 1983, 10, 409-427.	3.2	5

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55	Experimental verification and theoretical simulation of fracture behaviours of composite materials. Composite Structures, 1993, 23, 87-97.	5.8	5
56	A variable stiffness dual boundary element method for mixed-mode elastoplastic crack problems. Theoretical and Applied Fracture Mechanics, 1996, 25, 43-49.	4.7	5
57	Design of amall deployable satellite. Acta Astronautica, 2003, 53, 533-540.	3.2	5
58	<title>Composite materials based on carbon nanotubes for aerospace applications</title>. , 2005, , .		5
59	The FLECS expandable module concept for future space missions and an overall description on the material validation. Acta Astronautica, 2006, 59, 220-229.	3.2	5
60	Thermoplastic Polymeric Materials for Spacecraft Applications: Flame Retardant Properties and UV/AtOx Aging Analysis. Applied Sciences (Switzerland), 2021, 11, 949.	2.5	5
61	Structural behaviour of aeronautical tungsten carbide/carbon-coated titanium ball screws under space thermal-vacuum conditions. Fatigue and Fracture of Engineering Materials and Structures, 2005, 28, 309-319.	3.4	4
62	Characterization of Low Density Open-Cell Foams for Space Inflatable Applications. Journal of Spacecraft and Rockets, 2009, 46, 210-217.	1.9	4
63	Ballistic characterization of nanocomposite materials by means of “Coil Gun” electromagnetic accelerator. , 2010, , .		4
64	Dynamic response of large space structures. Acta Astronautica, 1982, 9, 455-471.	3.2	3
65	Evaluation of the built-in stresses and residual distortions on cured composites for space antenna reflectors applications. Composite Structures, 1987, 7, 267-283.	5.8	3
66	Design and manufacturing criteria for high precision composite antenna reflectors. Prediction of the residual distortions after the manufacturing process. Composite Structures, 1990, 16, 209-235.	5.8	3
67	Theoretical Forecasting and Experimental Validation of Damage Tolerance and Accumulation in Glass/Epoxy Laminates. Journal of Reinforced Plastics and Composites, 1992, 11, 56-81.	3.1	3
68	Degradation of Silicon Carbide Reflective Surfaces in the LEO Environment. , 2009, , .		3
69	Modeling and measuring of microwave absorbing and shielding nanostructured materials. , 2012, , .		3
70	Shell absorbing nanostructure for low radar observable missile. , 2015, , .		3
71	A new advanced railgun system for debris impact study. Procedia Structural Integrity, 2017, 3, 545-552.	0.8	3
72	Study and ground simulations of outgassing and hypervelocity impacts on carbon-based materials for space applications. , 2018, , .		3

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73	Porosity evaluation in graphite-epoxy composite materials. Materials Chemistry, 1982, 7, 43-56.	0.3	2
74	Damping of composite plate for space structures: Prediction and measurement methods. Acta Astronautica, 1987, 15, 157-164.	3.2	2
75	Elasto-plasto overall response in single and mixed mode crack configurations. International Journal of Fracture, 1990, 43, 25-45.	2.2	2
76	Cleavage fracture prediction and assessment of a nuclear pressure vessel carbon steel using local approach criteria. Nuclear Engineering and Design, 1993, 144, 1-7.	1.7	2
77	Stochastic differential equation for wave diffusion in random media. , 2013, , .		2
78	Behaviour of Hybrid Titanium Composite Laminate (HTCL) under In-Plane Loading. Advanced Composites Letters, 2004, 13, 096369350401300.	1.3	1
79	Carbon micro- and nano-structured multilayer composites for microwave metrological design. , 2016, , .		1
80	Experimental Reflection Evaluation for Attitude Monitoring of Space Orbiting Systems with NRL Arch Method. Applied Sciences (Switzerland), 2021, 11, 8632.	2.5	1
81	Space Environment Effect on Polymeric Nano-Composite Materials. Aerotecnica Missili & Spazio, 2021, 100, 25-32.	0.9	1
82	Stress distributions in cracked thin cylindrical shells: Series expansion. Theoretical and Applied Fracture Mechanics, 1990, 13, 39-51.	4.7	0
83	DEVELOPMENT AND VALIDATION OF A NEW FACILITY FOR LOW EARTH ORBIT THERMAL CYCLING SIMULATION. Experimental Techniques, 2009, 33, 18-24.	1.5	0
84	Microwave behavior of nanostructured composite for low observable nanosatellites. , 2015, , .		0
85	High Thickness Kevlar/Carbon Nanostructured Composite for Impact Protection. Aerotecnica Missili & Spazio, 2016, 95, 50-56.	0.9	0
86	Fully Configurable Electromagnetic Wave Absorbers by Using Carbon Nanostructures. , 2016, , .		0
87	Space Carbon-Carbon Thermal Protection System Electromagnetic Characterization in Reverberation Chamber. Aerotecnica Missili & Spazio, 2016, 95, 92-98.	0.9	0
88	Low-Orbit Environment Effects on Carbon/SiC Composites: Experimental and Numerical Approaches. Journal of Engineering Thermophysics, 2020, 29, 561-575.	1.4	0