Massimiliano Avalle

List of Publications by Year
in descending order

58 papers	1,876 citations	394421 19 h-index	265206 42 g-index
58 all docs	58 docs citations	58 times ranked	1486 citing authors

#	Article	IF	Citations
1	A study on additive manufacturing build parameters as bonded joint design factors. Journal of Adhesion, 2024, 100, 576-605.	3.0	13
2	Rapid evaluation of notch stress intensity factors using the peak stress method with 3D tetrahedral finite element models: Comparison of commercial codes. Fatigue and Fracture of Engineering Materials and Structures, 2022, 45, 1005-1034.	3.4	16
3	Analysis of the mechanical expansion process of thin-walled tubes for air heat-exchanger production. Proceedings of the Institution of Mechanical Engineers, Part B: Journal of Engineering Manufacture, 2022, 236, 1453-1465.	2.4	2
4	Appraisal of surface preparation in adhesive bonding of additive manufactured substrates. International Journal of Adhesion and Adhesives, 2021, 106, 102802.	2.9	19
5	Development of a gripper for garment handling designed for additive manufacturing. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 2021, 235, 1799-1810.	2.1	6
6	Feasibility study on hybrid weld-bonded joints using additive manufacturing and conductive thermoplastic filament. Journal of Advanced Joining Processes, 2021, 3, 100046.	2.7	6
7	Review of Tailoring Methods for Joints with Additively Manufactured Adherends and Adhesives. Materials, 2020, 13, 3949.	2.9	26
8	The use of low pressure plasma surface modification for bonded joints to assembly a robotic gripper designed to be additive manufactured. Procedia Structural Integrity, 2019, 24, 204-212.	0.8	3
9	A Mechanical Model of Cellular Solids for Energy Absorption. Advanced Engineering Materials, 2019, 21, 1800457.	3.5	13
10	Rapid evaluation of notch stress intensity factors using the peak stress method: Comparison of commercial finite element codes for a range of mesh patterns. Fatigue and Fracture of Engineering Materials and Structures, 2018, 41, 1044-1063.	3.4	41
11	Tribological characterization of modified polymeric blends. Procedia Structural Integrity, 2018, 8, 239-255.	0.8	10
12	Design of an under-bonnet heat exchanger for the improvement of energy efficiency. Procedia Structural Integrity, 2018, 8, 227-238.	0.8	0
13	Experiment based modeling of the mechanical expansion of tubes for the construction of heat exchangers. Procedia Structural Integrity, 2018, 12, 130-144.	0.8	4
14	An improved model to describe the repeated loading-unloading in compression of cellular materials. Procedia Structural Integrity, 2018, 12, 19-31.	0.8	2
15	High Strain Rate Tensile and Compressive Testing and Performance of Mesoporous Invar (FeNi36) Matrix Syntactic Foams Produced by Feedstock Extrusion. Advanced Engineering Materials, 2017, 19, 1600474.	3.5	9
16	Dynamic Brazilian Test for Mechanical Characterization of Ceramic Ballistic Protection. Shock and Vibration, 2017, 2017, 1-10.	0.6	5
17	Rotational acceleration measurement for pedestrian head impact. International Journal of Crashworthiness, 2015, 20, 560-572.	1.9	1
18	Incidences of various passenger vehicle front-end designs on pedestrian lower limb injuries. International Journal of Crashworthiness, 2015, 20, 337-347.	1.9	9

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19	Mechanical properties and impact behavior of a microcellular structural foam. Latin American Journal of Solids and Structures, 2014, 11, 200-222.	1.0	14
20	Experimental and numerical characterization of a mechanical expansion process for thin-walled tubes. Journal of Materials Processing Technology, 2014, 214, 1143-1152.	6.3	13
21	Investigation of the mechanical behaviour of AISI 316L stainless steel syntactic foams at different strain-rates. Composites Part B: Engineering, 2014, 66, 430-442.	12.0	70
22	Quasi-static and Dynamic Mechanical Performance of Glass Microsphere- and Cenosphere-based 316L Syntactic Foams. , 2014, 4, 383-387.		34
23	Numerical and experimental investigation of a lightweight bonnet for pedestrian safety. International Journal of Crashworthiness, 2013, 18, 29-39.	1.9	11
24	Structural and Dynamic Problems in Car Body Design. , 2013, , 943-967.		0
25	Dynamic mechanical behavior of syntactic iron foams with glass microspheres. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 552, 364-375.	5.6	88
26	Syntactic Iron Foams â€“ On Deformation Mechanisms and Strainâ€Rate Dependence of Compressive Properties. Advanced Engineering Materials, 2012, 14, 909-918.	3.5	45
27	Torsion Tests on AV119 Epoxy â€“ Joined SiC. International Journal of Applied Ceramic Technology, 2012, 9, 795-807.	2.1	18
28	A Brazilian Disk Test for the Evaluation of the Shear Strength of Epoxyâ€Joined Ceramics. International Journal of Applied Ceramic Technology, 2012, 9, 808-815.	2.1	8
29	Sheet metal plate design: a structured approach to product optimization in the presence of technological constraints. International Journal of Advanced Manufacturing Technology, 2011, 56, 31-45.	3.0	4
30	Numerical Analysis of Hybrid Joining in Car Body Applications. Journal of Adhesion Science and Technology, 2011, 25, 2409-2433.	2.6	8
31	Comparison of shear strength tests on AV119 epoxy-joined carbon/carbon composites. Composites Part B: Engineering, 2010, 41, 182-191.	12.0	41
32	A New Glass to Join Foam Glass Components. Journal of Materials Engineering and Performance, 2010, 19, 1244-1247.	2.5	4
33	Comparison of shear strength tests on AV119 epoxy-joined ceramics. Journal of Materials Science, 2010, 45, 4401-4405.	3.7	21
34	Mechanical Characterization of Particulate Aluminum Foamsâ€"Strainâ€Rate, Density and Matrix Alloy versus Adhesive Effects. Advanced Engineering Materials, 2010, 12, 596-603.	3.5	30
35	Bi-Material Joining for Car Body Structures: Experimental and Numerical Analysis. Journal of Adhesion, 2010, 86, 539-560.	3.0	13
36	Comparison of the energy absorption capability of crash boxes assembled by spot-weld and continuous joining techniques. International Journal of Impact Engineering, 2009, 36, 498-511.	5.0	65

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37	AlSi7 metallic foams â€“ aspects of material modelling for crash analysis. International Journal of Crashworthiness, 2009, 14, 269-285.	1.9	28
38	The mechanical behaviour of polyurethane foam: multiaxial and dynamic behaviour. International Journal of Materials Engineering Innovation, 2009, 1, 154.	0.5	9
39	Aluminum foam-polymer hybrid structures (APM aluminum foam) in compression testing. International Journal of Solids and Structures, 2008, 45, 5627-5641.	2.7	51
40	The mechanical behaviour of aluminium foam structures in different loading conditions. International Journal of Impact Engineering, 2008, 35, 644-658.	5.0	117
41	Improvements to the protection of vulnerable road users: Retrofittable, energy-absorbing front end for heavy goods vehicles. International Journal of Crashworthiness, 2008, 13, 609-627.	1.9	7
42	Development of a device to increase the protection of vulnerable road users in the case of impact against heavy vehicles. WIT Transactions on the Built Environment, 2008, , .	0.0	0
43	Optimisation of a vehicle energy absorbing steel component with experimental validation. International Journal of Impact Engineering, 2007, 34, 843-858.	5.0	27
44	Mechanical models of cellular solids: Parameters identification from experimental tests. International Journal of Impact Engineering, 2007, 34, 3-27.	5.0	155
45	High strain-rate compression test on metallic foam using a multiple pulse SHPB Apparatus. European Physical Journal Special Topics, 2006, 134, 609-616.	0.2	9
46	The Mechanical Behaviour of Aluminium Foam Structures in Different Loading Conditions. , 2006, , 655.		10
47	Sensitivity and stochastic analysis in a crash simulation environment. Vehicle System Dynamics, 2006, 44, 443-454.	3.7	0
48	Shear Strength Tests of Joined Advanced Ceramics. , 2006, , .		4
49	Multiaxial characterization of the mechanical behaviour of aluminium foam. WIT Transactions on the Built Environment, 2006, , .	0.0	2
50	Experimental investigation of the energy absorption capability of bonded crash boxes. WIT Transactions on the Built Environment, 2006, , .	0.0	5
51	Design optimization by response surface methodology: application to crashworthiness design of vehicle structures. Structural and Multidisciplinary Optimization, 2002, 24, 325-332.	3.5	81
52	Maximisation of the crushing performance of a tubular device by shape optimisation. Computers and Structures, 2002, 80, 2425-2432.	4.4	39
53	Casting defects and fatigue strength of a die cast aluminium alloy: a comparison between standard specimens and production components. International Journal of Fatigue, 2002, 24, 1-9.	5.7	96
54	Characterization of polymeric structural foams under compressive impact loading by means of energy-absorption diagram. International Journal of Impact Engineering, 2001, 25, 455-472.	5.0	518

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55	Optimization of a Passive Safety Device by Means of the Response Surface Methodology. , 1999, , 85-92.		3
56	Experimental evaluation of the strain field history during plastic progressive folding of aluminium circular tubes. International Journal of Mechanical Sciences, 1997, 39, 575-583.	6.7	25
57	A theoretical approach to the optimization of flexural stiffness of symmetric laminates. Composite Structures, 1995, 31, 75-86.	5.8	7
58	ADDITIVE MANUFACTURING PROCESS PARAMETER INFLUENCE ON MECHANICAL STRENGTH OF ADHESIVE JOINTS, PRELIMINARY ACTIVITIES. Acta Polytechnica CTU Proceedings, 0, 25, 41-47.	0.3	11