

Tito Andriollo

List of Publications by Year in descending order

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Version: 2024-02-01

25
papers

277
citations

840776

11
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940533

16
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25
all docs

25
docs citations

25
times ranked

171
citing authors

#	ARTICLE	IF	CITATIONS
1	Three-dimensional local residual stress and orientation gradients near graphite nodules in ductile cast iron. <i>Acta Materialia</i> , 2016, 121, 173-180.	7.9	32
2	On the isotropic elastic constants of graphite nodules in ductile cast iron: Analytical and numerical micromechanical investigations. <i>Mechanics of Materials</i> , 2016, 96, 138-150.	3.2	28
3	Modeling the elastic behavior of ductile cast iron including anisotropy in the graphite nodules. <i>International Journal of Solids and Structures</i> , 2016, 100-101, 523-535.	2.7	28
4	Microstructure and residual elastic strain at graphite nodules in ductile cast iron analyzed by synchrotron X-ray microdiffraction. <i>Acta Materialia</i> , 2019, 167, 221-230.	7.9	26
5	Impact of micro-scale residual stress on in-situ tensile testing of ductile cast iron: Digital volume correlation vs. model with fully resolved microstructure vs. periodic unit cell. <i>Journal of the Mechanics and Physics of Solids</i> , 2019, 125, 714-735.	4.8	25
6	Analysis of the correlation between micro-mechanical fields and fatigue crack propagation path in nodular cast iron. <i>Acta Materialia</i> , 2020, 188, 302-314.	7.9	21
7	A micro-mechanical analysis of thermo-elastic properties and local residual stresses in ductile iron based on a new anisotropic model for the graphite nodules. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2016, 24, 055012.	2.0	20
8	Probing the structure and mechanical properties of the graphite nodules in ductile cast irons via nano-indentation. <i>Mechanics of Materials</i> , 2018, 122, 85-95.	3.2	17
9	Modeling of damage in ductile cast iron - The effect of including plasticity in the graphite nodules. <i>IOP Conference Series: Materials Science and Engineering</i> , 2015, 84, 012027.	0.6	15
10	Uncovering the local inelastic interactions during manufacture of ductile cast iron: How the substructure of the graphite particles can induce residual stress concentrations in the matrix. <i>Journal of the Mechanics and Physics of Solids</i> , 2018, 111, 333-357.	4.8	15
11	Micromechanical impact of solidification regions in ductile iron revealed via a 3D strain partitioning analysis method. <i>Scripta Materialia</i> , 2020, 178, 463-467.	5.2	11
12	Analysis of the equivalent indenter concept used to extract Young's modulus from a nano-indentation test: some new insights into the Oliver-Pharr method. <i>Modelling and Simulation in Materials Science and Engineering</i> , 2017, 25, 045004.	2.0	8
13	Unraveling compacted graphite evolution during solidification of cast iron using in-situ synchrotron X-ray tomography. <i>Carbon</i> , 2021, 184, 799-810.	10.3	6
14	In situ synchrotron investigation of degenerate graphite nodule evolution in ductile cast iron. <i>Acta Materialia</i> , 2021, 221, 117367.	7.9	6
15	Investigation of the elastoplastic and fracture behavior of solid materials considering microstructural anisotropy: A discrete element modeling study. <i>Computational Materials Science</i> , 2019, 170, 109164.	3.0	5
16	A simplified formula to estimate the size of the cyclic plastic zone in metals containing elastic particles. <i>Engineering Fracture Mechanics</i> , 2021, 241, 107428.	4.3	4
17	Distance map based micromechanical analysis of the impact of matrix heterogeneities on the yield stress of nodular cast iron. <i>Mechanics of Materials</i> , 2020, 148, 103414.	3.2	4
18	Analytical solution to the 1D Lemaitre's isotropic damage model and plane stress projected implicit integration procedure. <i>Applied Mathematical Modelling</i> , 2016, 40, 5759-5774.	4.2	2

#	ARTICLE	IF	CITATIONS
19	Synchrotron measurements of local microstructure and residual strains in ductile cast iron. IOP Conference Series: Materials Science and Engineering, 2017, 219, 012054.	0.6	2
20	Residual Stresses around Individual Graphite Nodules in Ductile Iron: Impact on the Tensile Mechanical Properties. Materials Science Forum, 0, 925, 465-472.	0.3	1
21	Modeling the deformation of fresh porcine bellies: A quantitative comparison of different constitutive formulations. Mechanics of Materials, 2020, 150, 103597.	3.2	1
22	Impact of local Si segregation on strain localization in ductile cast iron. IOP Conference Series: Materials Science and Engineering, 2020, 861, 012038.	0.6	0
23	X-ray tomography, digital volume correlation and FE modelling: A synergistic combination to study the processing-structure-property relations in ductile iron. IOP Conference Series: Materials Science and Engineering, 2020, 861, 012037.	0.6	0
24	Creep of the Matrix During Coalescence and Overgrowth of Graphite Precipitates in a High-Silicon Spheroidal Graphite Iron Submitted to Thermal Cycling in the Ferritic Domain. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2020, 51, 2685-2688.	2.2	0
25	Recent trends in X-ray based characterization of nodular cast iron. Material Design and Processing Communications, 2021, 3, e212.	0.9	0