

Nicola Bonora

List of Publications by Year in descending order

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108
papers

2,162
citations

331670

21
h-index

254184

43
g-index

112
all docs

112
docs citations

112
times ranked

1365
citing authors

#	ARTICLE	IF	CITATIONS
1	A nonlinear CDM model for ductile failure. <i>Engineering Fracture Mechanics</i> , 1997, 58, 11-28.	4.3	336
2	Ductile damage evolution under triaxial state of stress: theory and experiments. <i>International Journal of Plasticity</i> , 2005, 21, 981-1007.	8.8	261
3	Modeling ductile damage under fully reversed cycling. <i>Computational Materials Science</i> , 2003, 26, 129-141.	3.0	108
4	CDM modeling of ductile failure in ferritic steels: Assessment of the geometry transferability of model parameters. <i>International Journal of Plasticity</i> , 2006, 22, 2015-2047.	8.8	94
5	Micromechanical modeling of ductile cast iron incorporating damage. Part I: Ferritic ductile cast iron. <i>International Journal of Solids and Structures</i> , 2005, 42, 1401-1424.	2.7	89
6	Simulation of failure under cyclic plastic loading by damage models. <i>International Journal of Plasticity</i> , 2006, 22, 2146-2170.	8.8	79
7	The Pathogenesis of Retinal Damage in Blunt Eye Trauma: Finite Element Modeling. , 2011, 52, 3994.		70
8	Low cycle fatigue life estimation for ductile metals using a nonlinear continuum damage mechanics model. <i>International Journal of Solids and Structures</i> , 1998, 35, 1881-1894.	2.7	59
9	Micromechanical modelling of cyclic plasticity incorporating damage. <i>International Journal of Solids and Structures</i> , 2005, 42, 337-351.	2.7	57
10	Primary Blast Injury to the Eye and Orbit: Finite Element Modeling. , 2012, 53, 8057.		50
11	Practical Applicability and Limitations of the Elastic Modulus Degradation Technique for Damage Measurements in Ductile Metals. <i>Strain</i> , 2011, 47, 241-254.	2.4	43
12	Identification and measurement of ductile damage parameters. <i>Journal of Strain Analysis for Engineering Design</i> , 1999, 34, 463-478.	1.8	42
13	Identification of the parameters of a non-linear continuum damage mechanics model for ductile failure in metals. <i>Journal of Strain Analysis for Engineering Design</i> , 2004, 39, 639-651.	1.8	39
14	On the Effect of Triaxial State of Stress on Ductility Using Nonlinear CDM Model. <i>International Journal of Fracture</i> , 1997, 88, 359-371.	2.2	38
15	Title is missing!. <i>International Journal of Fracture</i> , 2000, 104, 71-87.	2.2	35
16	Constitutive modeling for ductile metals behavior incorporating strain rate, temperature and damage mechanics. <i>International Journal of Impact Engineering</i> , 2001, 26, 53-64.	5.0	31
17	Micromechanical modeling of composites with mechanical interface " Part II: Damage mechanics assessment. <i>Composites Science and Technology</i> , 2006, 66, 323-332.	7.8	29
18	Micromechanical modeling of composites with mechanical interface " Part 1: Unit cell model development and manufacturing process effects. <i>Composites Science and Technology</i> , 2006, 66, 314-322.	7.8	27

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19	Deformation and texture evolution of OFHC copper during dynamic tensile extrusion. <i>Acta Materialia</i> , 2015, 89, 163-180.	7.9	26
20	Modelling human eye under blast loading. <i>Computer Methods in Biomechanics and Biomedical Engineering</i> , 2015, 18, 107-115.	1.6	25
21	Effect of microstructure on dynamic shear localisation in Alloy 718. <i>Mechanics of Materials</i> , 2017, 109, 88-100.	3.2	23
22	Numerical implementation of a new coupled cyclic plasticity and continuum damage model. <i>Computational Materials Science</i> , 2014, 81, 538-547.	3.0	22
23	A Contribution to New Material Standards for Ductile Irons and Austempered Ductile Irons. <i>International Journal of Metalcasting</i> , 2017, 11, 136-147.	1.9	22
24	On closed form solution for the elastic stress field around holes in orthotropic composite plates under in-plane stress conditions. <i>Composite Structures</i> , 1993, 25, 139-156.	5.8	21
25	Full scale experimental tests and numerical model validation of reinforced concrete slab subjected to direct contact explosion. <i>International Journal of Impact Engineering</i> , 2019, 132, 103309.	5.0	21
26	Microdamage effects on the overall response of long fibre/metal-matrix composites. <i>Composites</i> , 1994, 25, 575-582.	0.7	20
27	A new overall nonlinear damage model for fiber metal laminates based on continuum damage mechanics. <i>Engineering Fracture Mechanics</i> , 2019, 206, 21-33.	4.3	20
28	Continuum damage mechanics modelling incorporating stress triaxiality effect on ductile damage initiation. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2020, 43, 1755-1768.	3.4	20
29	A primary creep model for Class M materials. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 5496-5501.	5.6	19
30	Numerical Simulation of Dynamic Tensile Extrusion Test of OFHC Copper. <i>Journal of Dynamic Behavior of Materials</i> , 2015, 1, 136-152.	1.7	19
31	Flow Stress of bcc Metals over a Wide Range of Temperature and Strain Rates. <i>Metals</i> , 2020, 10, 120.	2.3	19
32	Prediction of fracture toughness in ductile-to-brittle transition region using combined CDM and Beremin models. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 657, 161-172.	5.6	18
33	Stress triaxiality effect on void nucleation in ductile metals. <i>Fatigue and Fracture of Engineering Materials and Structures</i> , 2020, 43, 1473-1486.	3.4	18
34	A computational procedure to calculate stress-strain field around simple shape holes in composite laminates. <i>Computers and Structures</i> , 1994, 53, 1167-1179.	4.4	17
35	Mechanism Based Creep Model Incorporating Damage. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2010, 132, .	1.4	17
36	Effects of off-centered cracks and restraint of induced bending caused by pressure on the crack-opening-area analysis of pipes. <i>Nuclear Engineering and Design</i> , 1996, 167, 55-67.	1.7	16

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37	Time-independent formulation for creep damage modeling in metals based on void and crack evolution. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 510-511, 207-213.	5.6	13
38	COD of off-centred cracks in pipes under bending load: a geometrical solution. <i>International Journal of Fracture</i> , 1996, 75, 1-18.	2.2	12
39	Investigation on the Weibull parameters identification for local approach application in the ductile to brittle transition regime. <i>Engineering Fracture Mechanics</i> , 2007, 74, 549-562.	4.3	12
40	The effect of subcritical ductile crack growth on cleavage fracture probability in the transition regime using continuum damage mechanics simulation. <i>Theoretical and Applied Fracture Mechanics</i> , 2016, 82, 125-135.	4.7	12
41	A new constitutive bulk material model to predict the uniaxial tensile nonlinear behavior of fiber metal laminates. <i>Journal of Strain Analysis for Engineering Design</i> , 2018, 53, 26-35.	1.8	12
42	Analysis of reinforced concrete slabs under blast loading. <i>Procedia Structural Integrity</i> , 2018, 9, 272-278.	0.8	12
43	Determination of Johnson-holmquist constitutive model parameters for fused silica. <i>EPJ Web of Conferences</i> , 2012, 26, 04011.	0.3	11
44	Stress triaxiality effect on cleavage fracture stress. <i>Theoretical and Applied Fracture Mechanics</i> , 2020, 109, 102689.	4.7	10
45	New time-independent formulation for creep damage in polycrystalline metals and its specialisation to high alloy steel for high-temperature applications. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 510-511, 214-218.	5.6	9
46	Experimental modeling of strain-dependent cyclic plasticity for prediction of hysteresis curve. <i>Journal of Strain Analysis for Engineering Design</i> , 2015, 50, 314-324.	1.8	9
47	Dynamic Recrystallization During High-Strain-Rate Tension of Copper. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 2555-2559.	2.2	9
48	Micromechanical modelling of constitutive behavior of austempered ductile iron (ADI) at high strain rate. <i>Theoretical and Applied Fracture Mechanics</i> , 2017, 92, 351-359.	4.7	9
49	Computational analysis of mixed-mode delamination crack growth in a woven laminated ceramic-matrix composite. <i>Composites Science and Technology</i> , 1999, 59, 2287-2292.	7.8	8
50	Experimental Study of the Effect of Triaxiality Ratio on the Formability Limit Diagram and Ductile Damage Evolution in Steel and High Purity Copper. <i>International Journal of Material Forming</i> , 2010, 3, 171-174.	2.0	8
51	Ductile damage evolution in high purity copper taylor impact test. <i>AIP Conference Proceedings</i> , 2012, , .	0.4	8
52	Primary Creep Modeling Based on the Dependence of the Activation Energy on the Internal Stress. <i>Journal of Pressure Vessel Technology, Transactions of the ASME</i> , 2012, 134, .	0.6	8
53	Experimental assessment of ductile damage in P91 steel at high temperature. <i>International Journal of Damage Mechanics</i> , 2014, 23, 567-587.	4.2	8
54	Ductile damage in Taylor-anvil and rod-on-rod impact experiment. <i>Journal of Physics: Conference Series</i> , 2014, 500, 112035.	0.4	8

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55	Firecracker eye exposure: experimental study and simulation. Biomechanics and Modeling in Mechanobiology, 2017, 16, 1401-1411.	2.8	8
56	Modification of the Bonora Damage Model for shear failure. Frattura Ed Integrita Strutturale, 2018, 12, 140-150.	0.9	8
57	On the Role of Material Post-Necking Stress-Strain Curve in the Simulation of Dynamic Impact. AIP Conference Proceedings, 2006, , .	0.4	7
58	Crack Initiation and Growth in Bimetallic Girth Welds. , 2014, , .		7
59	High strain rate fracture behaviour of fused silica. Journal of Physics: Conference Series, 2014, 500, 182036.	0.4	7
60	Ductile fracture assessment of X65 steel using damage mechanics. Procedia Structural Integrity, 2017, 3, 508-516.	0.8	7
61	DAMAGE DEVELOPMENT IN HIGH PURITY COPPER UNDER VARYING DYNAMIC CONDITIONS AND MICROSTRUCTURAL STATES USING CONTINUUM DAMAGE MECHANICS. , 2009, , .		6
62	Modeling ductile metals under large strain, pressure and high strain rate incorporating damage and microstructure evolution. AIP Conference Proceedings, 2012, , .	0.4	6
63	Influence of anterior capsulorhexis shape, centration, size, and location on intraocular lens position: finite element model. Journal of Cataract and Refractive Surgery, 2022, 48, 222-229.	1.5	6
64	Experimental verification and theoretical simulation of fracture behaviours of composite materials. Composite Structures, 1993, 23, 87-97.	5.8	5
65	On the postbuckling of flawed shear panels considering crack growth effect. Thin-Walled Structures, 2015, 97, 186-198.	5.3	5
66	Numerical simulation of self-piercing riveting process (SRP) using continuum damage mechanics modelling. Frattura Ed Integrita Strutturale, 2018, 12, 161-172.	0.9	5
67	A Revised Approach to Damage Measurement Based on Stiffness Loss Technique. , 2008, , .		4
68	Assessment of an engineering approach to the evaluation of the cod of off-centered crack in pipes under bending for LBB design. Engineering Fracture Mechanics, 2012, 81, 69-79.	4.3	4
69	Simplified Approach for Fracture Integrity Assessment of Bimetallic Girth Weld Joint. , 2013, , .		4
70	Crack Initiation and Propagation Clad Pipe Girth Weld Flaws. , 2014, , .		4
71	Plasticity damage self-consistent model incorporating stress triaxiality and shear controlled fracture mechanisms " Model formulation. Engineering Fracture Mechanics, 2022, 271, 108634.	4.3	4
72	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

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73	Investigation on flying plate diameter to thickness ratio influence on damage pattern and spall signal. International Journal of Impact Engineering, 2003, 29, 127-138.	5.0	3
74	Dynamic Crack Tip Opening Displacement (DCTOD) as governing parameters for material fragmentation. Journal of Physics: Conference Series, 2014, 500, 112009.	0.4	3
75	Strain capacity assessment of API X65 steel using damage mechanics. Frattura Ed Integrita Strutturale, 2017, 11, 315-327.	0.9	3
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	DUCTILE DAMAGE EVOLUTION ASSESSMENT IN HIGH PURITY COPPER AND STAINLESS STEEL SUBJECTED TO DIFFERENT SHOCK-LOADING PROFILES USING COHESIVE MODELING. , 2009, , .		2
78	Failure Assessment of Pipe Tee Element Using Continuum Damage Mechanics. , 2013, , .		2
79	Integrity Assessment of Clad Pipe Girth Welds. , 2014, , .		2
80	Predicting Creep Rupture Using Damage Mechanics. , 2014, , .		2
81	Traumatic eye injuries as a result of blunt impact: computational issues. Journal of Physics: Conference Series, 2014, 500, 102003.	0.4	2
82	Deformation and failure of OFHC copper under high strain rate shear compression. AIP Conference Proceedings, 2017, , .	0.4	2
83	Constitutive behavior modelling of AA1100-O at large strain and high strain rates. AIP Conference Proceedings, 2018, , .	0.4	2
84	On the Presence of the Elastic Precursor in Re-Shock Experiment: An Unorthodox Explanation. AIP Conference Proceedings, 2006, , .	0.4	1
85	Mechanism Based Unified Creep Model Incorporating Damage. , 2008, , .		1
86	The pathogenesis of retinal damage in human eye under impact and blast load. , 2012, , .		1
87	COD of Off-Centered Cracks in Pipes Under Bending: Experimental Measures and Model Validation. , 2013, , .		1
88	A Novel Procedure for Measuring the Dynamic Fracture Toughness Using Direct Tension Hopkinson Bar. , 2013, , .		1
89	Fracture Integrity Assessment of Flawed Bi-Metallic Girth Weld Joint. , 2013, , .		1
90	Modeling of Multiaxial Stress Effects on the Creep Resistance of High Chromium Steel. , 2013, , .		1

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91	Mechanoluminescence of nylon under high velocity impact. Journal of Physics: Conference Series, 2014, 500, 182005.	0.4	1
92	The Role of Weld Processing on the Integrity Assessment of Bimetallic Girth Welds. , 2014, , .		1
93	EMBEDDED COHESIVE ELEMENTS (ECE) APPROACH TO THE SIMULATION OF SPALL FRACTURE EXPERIMENT. , 2008, , .		0
94	Primary Creep Modeling Based on the Dependence of the Activation Energy on the Internal Stress. , 2010, , .		0
95	Ultrafine particle size distribution during high velocity impact of high density metals. , 2012, , .		0
96	An Integrated Creep Model Based on Internal Stress Evolution. , 2014, , .		0
97	Experimental measurement and model validation of COD in pipe under bending with off-centered circumferential crack. Frattura Ed Integrita Strutturale, 2014, 8, 42-50.	0.9	0
98	Use of Circumferentially Cracked Bar sample for CTOD fracture toughness determination in the upper shelf regime. Frattura Ed Integrita Strutturale, 2014, 8, 252-262.	0.9	0
99	Modeling and Simulation of Creep Crack Growth in High Chromium Steels. , 2014, , .		0
100	Evaluation of Constraint Effect on Creep Crack Growth by Advanced Creep Modeling and Damage Mechanics. , 2014, , .		0
101	Numerical simulation and validation of damage in AA1100 aluminum symmetric Taylor impact (ROR). AIP Conference Proceedings, 2018, , .	0.4	0
102	High-rate characterization of additively manufactured Ti-6Al-4V using Taylor cylinder impact test: Experiments. Material Design and Processing Communications, 2021, 3, e192.	0.9	0
103	Assessment of Potential Damage to Ductile Cast Iron Cask as a Result of Exceptional Impact Loading. , 2003, , .		0
104	Failure Mode of Pipes Containing Circumferential Cracks Under Bending and Its Consequence on the Application of NSCM Criterion. , 2003, , .		0
105	Ballistic tests and numerical simulations for containment capability characterisation of Waspaloy® alloy. WIT Transactions on Modelling and Simulation, 2007, , .	0.0	0
106	NICKEL BASED SUPERALLOY CONTAINMENT CASE DESIGN: CONSTITUTIVE MODELING AND COMPUTATIONAL ANALYSIS. , 2008, , .		0
107	An Investigation on Circumferentially Cracked Bar Geometry for Critical CTOD Determination. , 2014, , .		0
108	Plasticity damage self-consistent model incorporating stress triaxiality and shear controlled fracture mechanisms – Model verification and validation. Engineering Fracture Mechanics, 2022, 271, 108635.	4.3	0