

Addis A Kidane

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/7578308/publications.pdf>

Version: 2024-02-01

87
papers

1,510
citations

279798

23
h-index

361022

35
g-index

95
all docs

95
docs citations

95
times ranked

1234
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of filler loading, geometry, dispersion and temperature on thermal conductivity of polymer nanocomposites. <i>Polymer Testing</i> , 2017, 57, 101-106.	4.8	126
2	Investigation of the dynamic stress-strain response of compressible polymeric foam using a non-parametric analysis. <i>International Journal of Impact Engineering</i> , 2016, 91, 170-182.	5.0	83
3	Design optimization of continuously and discretely graded foam materials for efficient energy absorption. <i>Materials and Design</i> , 2016, 102, 151-161.	7.0	81
4	A DIC-based study of in-plane mechanical response and fracture of orthotropic carbon fiber reinforced composite. <i>Composites Part B: Engineering</i> , 2014, 66, 388-399.	12.0	65
5	On the dynamically stored energy of cold work in pure single crystal and polycrystalline copper. <i>Acta Materialia</i> , 2012, 60, 3719-3728.	7.9	59
6	Effect of specimen size, compressibility and inertia on the response of rigid polymer foams subjected to high velocity direct impact loading. <i>International Journal of Impact Engineering</i> , 2016, 98, 62-74.	5.0	46
7	Experimental determination of Representative Volume Element (RVE) size in woven composites. <i>Optics and Lasers in Engineering</i> , 2017, 90, 59-71.	3.8	46
8	Local Deformation and Failure Mechanisms of Polymer Bonded Energetic Materials Subjected to High Strain Rate Loading. <i>Journal of Dynamic Behavior of Materials</i> , 2016, 2, 146-156.	1.7	45
9	Quasi-static and dynamic fracture initiation toughness of Ti/TiB layered functionally graded material under thermo-mechanical loading. <i>Engineering Fracture Mechanics</i> , 2010, 77, 479-491.	4.3	44
10	Verification and validation of the Optimal Transportation Meshfree (OTM) simulation of terminal ballistics. <i>International Journal of Impact Engineering</i> , 2012, 42, 25-36.	5.0	43
11	Multiscale damage evolution in polymer bonded sugar under dynamic loading. <i>Mechanics of Materials</i> , 2017, 114, 97-106.	3.2	39
12	Meso-scale strain localization and failure response of an orthotropic woven glass-fiber reinforced composite. <i>Composites Part B: Engineering</i> , 2015, 78, 308-318.	12.0	37
13	Determining the tensile response of materials at high temperature using DIC and the Virtual Fields Method. <i>Optics and Lasers in Engineering</i> , 2017, 91, 53-61.	3.8	37
14	Experimental investigation of prepreg slit tape wrinkling during automated fiber placement process using StereoDIC. <i>Composites Part B: Engineering</i> , 2019, 160, 546-557.	12.0	37
15	Mixed-mode dynamic crack propagation in graded materials under thermo-mechanical loading. <i>Engineering Fracture Mechanics</i> , 2010, 77, 2864-2880.	4.3	33
16	Fracture Behavior of Prestressed Composites Subjected to Shock Loading: A DIC-Based Study. <i>Experimental Mechanics</i> , 2015, 55, 211-225.	2.0	30
17	Characterizing the constitutive response and energy absorption of rigid polymeric foams subjected to intermediate-velocity impact. <i>Polymer Testing</i> , 2016, 54, 48-58.	4.8	30
18	Analysis of dynamic bending test using ultra high speed DIC and the virtual fields method. <i>International Journal of Impact Engineering</i> , 2017, 110, 299-310.	5.0	30

#	ARTICLE	IF	CITATIONS
19	Effects of cell-wall instability and local failure on the response of closed-cell polymeric foams subjected to dynamic loading. <i>Mechanics of Materials</i> , 2018, 116, 67-76.	3.2	30
20	The deformation and failure response of closed-cell PMDI foams subjected to dynamic impact loading. <i>Polymer Testing</i> , 2015, 44, 112-124.	4.8	28
21	Experimental characterization of compaction wave propagation in cellular polymers. <i>International Journal of Solids and Structures</i> , 2018, 139-140, 270-282.	2.7	26
22	Rigorous model-based uncertainty quantification with application to terminal ballistics, part I: Systems with controllable inputs and small scatter. <i>Journal of the Mechanics and Physics of Solids</i> , 2012, 60, 983-1001.	4.8	24
23	Dynamic constitutive behavior of Ti/TiB FGM under thermo-mechanical loading. <i>Journal of Materials Science</i> , 2008, 43, 2771-2777.	3.7	23
24	Simulations and experiments for automated fiber placement of prepreg slit tape: Wrinkle formation and fundamental observations. <i>Composites Part B: Engineering</i> , 2020, 201, 108287.	12.0	22
25	In situ deformation characterization of density-graded foams in quasi-static and impact loading conditions. <i>International Journal of Impact Engineering</i> , 2021, 150, 103820.	5.0	22
26	Dynamic curving cracks in functionally graded materials under thermo-mechanical loading. <i>International Journal of Solids and Structures</i> , 2012, 49, 1637-1655.	2.7	19
27	A multiscale experimental approach for correlating global and local deformation response in woven composites. <i>Composite Structures</i> , 2018, 194, 328-334.	5.8	18
28	Note: Dynamic meso-scale full field surface deformation measurement of heterogeneous materials. <i>Review of Scientific Instruments</i> , 2016, 87, 036108.	1.3	16
29	Meso-scale study of non-linear tensile response and fiber trellising mechanisms in woven composites. <i>Journal of Reinforced Plastics and Composites</i> , 2016, 35, 986-995.	3.1	16
30	Experimental characterization of meso-scale deformation mechanisms and the RVE size in plastically deformed carbon steel. <i>Strain</i> , 2017, 53, e12217.	2.4	15
31	Thermo-mechanical stress fields and strain energy associated with a mixed-mode propagating crack. <i>Acta Mechanica</i> , 2010, 215, 57-69.	2.1	14
32	Mode-I dynamic fracture initiation toughness using torsion load. <i>Engineering Fracture Mechanics</i> , 2019, 213, 53-71.	4.3	14
33	Strain Rate Effects in Polymer Matrix Composites Under Shear Loading: A Critical Review. <i>Journal of Dynamic Behavior of Materials</i> , 2017, 3, 110-132.	1.7	13
34	The Effect of Nano-Fillers on the In-Plane and Interlaminar Shear Properties of Carbon Fiber Reinforced Composite. <i>Journal of Dynamic Behavior of Materials</i> , 2018, 4, 296-307.	1.7	13
35	Measured Surface Deformation and Strains in Thin Thermoplastic Prepreg Tapes Steered along Curved Paths without Adhesion Using StereoDIC. <i>Experimental Mechanics</i> , 2019, 59, 531-547.	2.0	13
36	On the Failure and Fracture of Polymer Foam Containing Discontinuities. <i>ISRN Materials Science</i> , 2013, 2013, 1-9.	1.0	12

#	ARTICLE	IF	CITATIONS
37	Modeling functionally graded materials containing multiple heterogeneities. <i>Acta Mechanica</i> , 2014, 225, 1931-1943.	2.1	12
38	Through Thickness Elastic Profile Determination of Functionally Graded Materials. <i>Experimental Mechanics</i> , 2015, 55, 1427-1440.	2.0	12
39	Geometry factors for Mode I stress intensity factor of a cylindrical specimen with spiral crack subjected to torsion. <i>Engineering Fracture Mechanics</i> , 2019, 214, 79-94.	4.3	11
40	Gradual damage evolution and propagation in quasi-isotropic CFRC under quasi-static loading. <i>Composite Structures</i> , 2018, 185, 186-192.	5.8	10
41	Characterizing fracture response of cracked transversely graded materials. <i>Composite Structures</i> , 2019, 229, 111439.	5.8	10
42	Radial and axial inertia stresses in high strain rate deformation of polymer foams. <i>International Journal of Mechanical Sciences</i> , 2020, 181, 105679.	6.7	10
43	On the effect of microstructure on the torsional response of AA7050-T7651 at elevated strain rates. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2015, 639, 280-287.	5.6	9
44	Effect of Particle Mass Fraction on the Multiscale Dynamic Failure Behavior of Particulate Polymer Composites. <i>Experimental Mechanics</i> , 2019, 59, 599-609.	2.0	9
45	Characterization of Mode I and Mode II traction-separation laws for cohesive separation of uncured thermoset tows. <i>International Journal of Fracture</i> , 2020, 221, 25-38.	2.2	9
46	Thermomechanically Tunable Elastic Metamaterials With Compliant Porous Structures. <i>Journal of Engineering Materials and Technology, Transactions of the ASME</i> , 2018, 140, 021004.	1.4	8
47	A General Approach to Evaluate the Dynamic Fracture Toughness of Materials. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2017, , 185-194.	0.5	8
48	Effect of elastic properties of material composition on the fracture response of transversely graded ceramic/metal material. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2014, 619, 281-289.	5.6	7
49	Using Digital Image Correlation to Characterize Local Strains on Vascular Tissue Specimens. <i>Journal of Visualized Experiments</i> , 2016, , e53625.	0.3	7
50	Full Field Deformation Measurements in Tensile Kolsky Bar Experiments: Studies and Detailed Analysis of the Early Time History. <i>Journal of Dynamic Behavior of Materials</i> , 2018, 4, 95-113.	1.7	7
51	Weak-shock wave propagation in polymer-based particulate composites. <i>Journal of Applied Physics</i> , 2019, 125, .	2.5	7
52	Closed-form solution for shock wave propagation in density-graded cellular material under impact. <i>Theoretical and Applied Mechanics Letters</i> , 2021, 11, 100288.	2.8	7
53	Hybrid Computational and Experimental Approach to Identify the Dynamic Initiation Fracture Toughness at High Loading Rate. <i>Conference Proceedings of the Society for Experimental Mechanics</i> , 2018, , 141-146.	0.5	7
54	An experimental investigation concerning the effect of AFP defects on progressive damage in CFRP coupons. <i>Composite Structures</i> , 2022, 279, 114725.	5.8	7

#	ARTICLE	IF	CITATIONS
55	A New Approach to Determine the Quasi-Static and Dynamic Fracture Toughness of Engineering Materials. Conference Proceedings of the Society for Experimental Mechanics, 2013, , 545-551.	0.5	6
56	A novel method to determine the mixed mode (I/III) dynamic fracture initiation toughness of materials. International Journal of Fracture, 2020, 224, 47-65.	2.2	6
57	Effect of Nanodiamond (ND) Surface Functionalization on the Properties of ND/PEEK Composites. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2017, , 1-13.	2.5	5
58	Effect of Crystal Density on Dynamic Deformation Behavior of PBX. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 87-92.	0.5	5
59	A Progression on the Determination of Dynamic Fracture Initiation Toughness Using Spiral Crack. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 89-95.	0.5	5
60	Characterization of viscoelastic bending stiffness of uncured carbon-epoxy prepreg slit tape. Composite Structures, 2021, 275, 114295.	5.8	5
61	A New Method for Dynamic Fracture Toughness Determination Using Torsion Hopkinson Pressure Bar. Conference Proceedings of the Society for Experimental Mechanics, 2014, , 307-312.	0.5	5
62	Meso-scale Deformation Mechanisms of Polymer Bonded Energetic Materials Under Dynamic Loading. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 451-456.	0.5	5
63	Modification of Benthem Solution for Mode I Fracture of Cylinder with Spiral Crack Subjected to Torsion. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 57-63.	0.5	5
64	Cross-property interaction between stiffness, damage and thermal conductivity in particulate nanocomposite. Polymer Testing, 2017, 64, 127-135.	4.8	4
65	In-situ quantification of intra and intergranular deformation in pure magnesium using full-field measurements at low and high strain rates. Mechanics of Materials, 2018, 126, 36-46.	3.2	4
66	Dynamic Response of Layered Functionally Graded Polyurethane Foam with Nonlinear Density Variation. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 25-30.	0.5	4
67	Effect of Micro-Cracks on the Thermal Conductivity of Particulate Nanocomposite. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 89-94.	0.5	4
68	Numerical and Experimental Investigation of Density Graded Foams Subjected to Impact Loading. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 31-35.	0.5	4
69	On the Meso-Macro Scale Deformation of Low Carbon Steel. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 409-414.	0.5	3
70	Experimental Study of Residual Plastic Strain and Damages Development in Carbon Fiber Composite. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 31-36.	0.5	3
71	Experimental Investigation of Compaction Wave Propagation in Cellular Polymers. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 113-115.	0.5	3
72	Impact Response of Density Graded Cellular Polymers. Conference Proceedings of the Society for Experimental Mechanics, 2018, , 17-23.	0.5	3

#	ARTICLE	IF	CITATIONS
73	Meso-Scale Deformation Behavior of Polymer Bonded Energetic Material Under Quasi-Static Compression. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 345-350.	0.5	2
74	Viscoelastic Behavior of Porcine Arterial Tissue: Experimental and Numerical Study. Experimental Mechanics, 2022, 62, 953-967.	2.0	2
75	On the Mechanical Response of Polymer Fiber Composites Reinforced with Nanoparticles. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 125-130.	0.5	1
76	Multiscale deformation behavior of polymer bonded explosives subjected to intermediate velocity impact. AIP Conference Proceedings, 2018, , .	0.4	1
77	Loading Rate Effects for Flaws Undergoing Mixed-Mode I/III Fracture. Experimental Mechanics, 2021, 61, 1291-1307.	2.0	1
78	Mixed Mode (Mode I/III) Dynamic Fracture Initiation Toughness of Aluminum Alloy. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 59-64.	0.5	1
79	On the Response of Polymer Bonded Explosives at Different Impact Velocities. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 219-224.	0.5	1
80	Fracture of Pre-stressed Woven Glass Fiber Composite Exposed to Shock Loading. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 213-219.	0.5	1
81	Through Thickness Fracture Behavior of Transversely Graded Ti/TiB Material. Conference Proceedings of the Society for Experimental Mechanics, 2015, , 51-56.	0.5	1
82	Dynamic Flow Response of Rigid Polymer Foam Subjected to Direct Impact. Conference Proceedings of the Society for Experimental Mechanics, 2016, , 163-170.	0.5	1
83	Determination of Mixed-Mode (I/III) Fracture of Polycarbonate. Conference Proceedings of the Society for Experimental Mechanics, 2021, , 77-83.	0.5	0
84	Specimen Size Effect on Stress-Strain Response of Foams Under Direct-Impact. Conference Proceedings of the Society for Experimental Mechanics, 2017, , 253-261.	0.5	0
85	Compaction Wave Characteristics of Polymeric Foams Under Dynamic Loading. Conference Proceedings of the Society for Experimental Mechanics, 2018, , 175-180.	0.5	0
86	Localized Microstructural Deformation Behavior of Dynamically Deformed Pure Magnesium. Conference Proceedings of the Society for Experimental Mechanics, 2019, , 225-228.	0.5	0
87	Quantifying Wrinkling During Tow Placement on Curvilinear Paths. Conference Proceedings of the Society for Experimental Mechanics, 2020, , 9-12.	0.5	0