

Yong Xia

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/6982600/publications.pdf>

Version: 2024-02-01

92
papers

4,337
citations

257357

24
h-index

114418

63
g-index

92
all docs

92
docs citations

92
times ranked

3176
citing authors

#	ARTICLE	IF	CITATIONS
1	Thermal runaway mechanism of lithium ion battery for electric vehicles: A review. <i>Energy Storage Materials</i> , 2018, 10, 246-267.	9.5	1,939
2	Damage of cells and battery packs due to ground impact. <i>Journal of Power Sources</i> , 2014, 267, 78-97.	4.0	197
3	High-temperature digital image correlation method for full-field deformation measurement at 1200 Å°C. <i>Measurement Science and Technology</i> , 2011, 22, 015701.	1.4	192
4	Data-Driven Safety Envelope of Lithium-Ion Batteries for Electric Vehicles. <i>Joule</i> , 2019, 3, 2703-2715.	11.7	127
5	Mechanical behaviors of SLM additive manufactured octet-truss and truncated-octahedron lattice structures with uniform and taper beams. <i>International Journal of Mechanical Sciences</i> , 2019, 163, 105091.	3.6	99
6	Mechanical damage in a lithium-ion pouch cell under indentation loads. <i>Journal of Power Sources</i> , 2017, 357, 61-70.	4.0	91
7	High-temperature deformation field measurement by combining transient aerodynamic heating simulation system and reliability-guided digital image correlation. <i>Optics and Lasers in Engineering</i> , 2010, 48, 841-848.	2.0	90
8	Mechanical properties of hierarchical anti-tetrachiral metastructures. <i>Extreme Mechanics Letters</i> , 2017, 16, 18-32.	2.0	86
9	Failure behaviours of 100% SOC lithium-ion battery modules under different impact loading conditions. <i>Engineering Failure Analysis</i> , 2017, 82, 149-160.	1.8	84
10	Deformation and failure of lithium-ion batteries treated as a discrete layered structure. <i>International Journal of Plasticity</i> , 2019, 121, 293-311.	4.1	79
11	An active imaging digital image correlation method for deformation measurement insensitive to ambient light. <i>Optics and Laser Technology</i> , 2012, 44, 204-209.	2.2	77
12	End-of-life or second-life options for retired electric vehicle batteries. <i>Cell Reports Physical Science</i> , 2021, 2, 100537.	2.8	77
13	Comparative study of mechanical-electrical-thermal responses of pouch, cylindrical, and prismatic lithium-ion cells under mechanical abuse. <i>Science China Technological Sciences</i> , 2018, 61, 1472-1482.	2.0	69
14	State-of-Charge Dependence of Mechanical Response of Lithium-Ion Batteries: A Result of Internal Stress. <i>Journal of the Electrochemical Society</i> , 2018, 165, A1537-A1546.	1.3	61
15	Experiments and 3D detailed modeling for a pouch battery cell under impact loading. <i>Journal of Energy Storage</i> , 2020, 27, 101016.	3.9	61
16	Mechanism of strengthening of battery resistance under dynamic loading. <i>International Journal of Impact Engineering</i> , 2019, 131, 78-84.	2.4	54
17	Adhesion strength of the cathode in lithium-ion batteries under combined tension/shear loadings. <i>RSC Advances</i> , 2018, 8, 3996-4005.	1.7	48
18	Testing and Modeling the Mechanical Properties of the Granular Materials of Graphite Anode. <i>Journal of the Electrochemical Society</i> , 2018, 165, A1160-A1168.	1.3	44

#	ARTICLE	IF	CITATIONS
19	Durability of adhesively-bonded single lap shear joints in accelerated hygrothermal exposure for automotive applications. <i>International Journal of Adhesion and Adhesives</i> , 2013, 44, 130-137.	1.4	38
20	Experimental study of strain rate effects on the strength of adhesively bonded joints after hygrothermal exposure. <i>International Journal of Adhesion and Adhesives</i> , 2015, 56, 3-12.	1.4	37
21	Design and verification of a strain gauge based load sensor for medium-speed dynamic tests with a hydraulic test machine. <i>International Journal of Impact Engineering</i> , 2016, 88, 139-152.	2.4	37
22	Verification of a multiple-machine program for material testing from quasi-static to high strain-rate. <i>International Journal of Impact Engineering</i> , 2015, 86, 284-294.	2.4	34
23	Increasing strength and fracture toughness of AA7075-T6 adhesively-bonded joints with laser ablation. <i>Journal of Materials Processing Technology</i> , 2018, 259, 368-379.	3.1	31
24	Strain field denoising for digital image correlation using a regularized cost-function. <i>Optics and Lasers in Engineering</i> , 2015, 65, 9-17.	2.0	28
25	A simplified FE model for pull-out failure of spot welds. <i>Engineering Fracture Mechanics</i> , 2010, 77, 1224-1239.	2.0	27
26	Mechanical characterization of a steel-aluminum clinched joint under impact loading. <i>Thin-Walled Structures</i> , 2020, 151, 106759.	2.7	27
27	Influence of flow rule and calibration approach on plasticity characterization of DP780 steel sheets using Hill48 model. <i>International Journal of Mechanical Sciences</i> , 2014, 89, 148-157.	3.6	26
28	Effect of low-temperature aging on the safety performance of lithium-ion pouch cells under mechanical abuse condition: A comprehensive experimental investigation. <i>Energy Storage Materials</i> , 2021, 40, 268-281.	9.5	25
29	Influence of stress softening on energy-absorption capability of polymeric foams. <i>Materials & Design</i> , 2011, 32, 1167-1176.	5.1	24
30	Modeling of high strength steel joints bonded with toughened adhesive for vehicle crash simulations. <i>International Journal of Adhesion and Adhesives</i> , 2012, 39, 21-32.	1.4	24
31	Three-dimensional numerical simulations on the hyperelastic behavior of carbon-black particle filled rubbers under moderate finite deformation. <i>Computational Materials Science</i> , 2012, 55, 157-165.	1.4	24
32	Effect of State-of-Charge and Air Exposure on Tensile Mechanical Properties of Lithium-Ion Battery Electrodes. <i>Journal of the Electrochemical Society</i> , 2020, 167, 090517.	1.3	20
33	Mechanical Behavior of Lithium-Ion Battery Component Materials and Error Sources Analysis for Test Results. <i>SAE International Journal of Materials and Manufacturing</i> , 0, 9, 614-621.	0.3	19
34	Role of strain-induced martensitic phase transformation in mechanical response of 304L steel at different strain-rates and temperatures. <i>Journal of Materials Processing Technology</i> , 2020, 280, 116613.	3.1	19
35	Direction-dependent mechanical-electrical-thermal responses of large-format prismatic Li-ion battery under mechanical abuse. <i>Journal of Energy Storage</i> , 2021, 43, 103270.	3.9	19
36	Development of high-efficiency modeling technique for weld-bonded steel joints in vehicle structures—Part I: Static experiments and simulations. <i>International Journal of Adhesion and Adhesives</i> , 2009, 29, 414-426.	1.4	18

#	ARTICLE	IF	CITATIONS
37	Experimental study on characterizing damage behavior of thermoplastics. <i>Materials & Design</i> , 2013, 44, 199-207.	5.1	18
38	Structural Designs for Electric Vehicle Battery Pack against Ground Impact. , 0, , .		18
39	Development of a high-efficiency modeling technique for weld-bonded steel joints in vehicle structures, Part II: Dynamic experiments and simulations. <i>International Journal of Adhesion and Adhesives</i> , 2009, 29, 427-433.	1.4	17
40	Microstructural deformation patterns of a highly orthotropic polypropylene separator of lithium-ion batteries: Mechanism, model, and theory. <i>Extreme Mechanics Letters</i> , 2020, 37, 100705.	2.0	17
41	On the fracture possibility of thin-walled tubes under axial crushing. <i>Thin-Walled Structures</i> , 2012, 55, 85-95.	2.7	16
42	Effect of base steels on mechanical behavior of adhesive joints with dissimilar steel substrates. <i>International Journal of Adhesion and Adhesives</i> , 2014, 51, 42-53.	1.4	15
43	Impedance-based diagnosis of internal mechanical damage for large-format lithium-ion batteries. <i>Energy</i> , 2021, 230, 120855.	4.5	15
44	Development of a numerical material model for axial crushing mechanical characterization of woven CFRP composites. <i>Composite Structures</i> , 2019, 230, 111531.	3.1	14
45	Study on the Compressible Hyperelastic Constitutive Model of Tire Rubber Compounds under Moderate Finite Deformation. <i>Rubber Chemistry and Technology</i> , 2004, 77, 230-241.	0.6	13
46	Simulation of Spot Weld Pullout by Modeling Failure Around Nugget. , 2006, , .		12
47	Experimental study on influence of section thickness on mechanical behavior of die-cast AM60 magnesium alloy. <i>Materials & Design</i> , 2012, 38, 124-132.	5.1	12
48	System ringing in impact test triggered by upper-and-lower yield points of materials. <i>International Journal of Impact Engineering</i> , 2017, 108, 295-302.	2.4	12
49	Characterization methods of delamination in a plain woven CFRP composite. <i>Journal of Materials Science</i> , 2019, 54, 13157-13174.	1.7	12
50	An experimental method for characterizing friction properties of sheet metal under high contact pressure. <i>Wear</i> , 2012, 289, 82-94.	1.5	11
51	Testing and modeling tearing and air effect of aluminum honeycomb under out-of-plane impact loading. <i>International Journal of Impact Engineering</i> , 2020, 135, 103402.	2.4	11
52	Influence of Mass Distribution of Battery and Occupant on Crash Response of Small Lightweight Electric Vehicle. , 2015, , .		10
53	Numerical and experimental investigation on mechanical responses of plain woven CFRP composite under various loading cases. <i>International Journal of Crashworthiness</i> , 2021, 26, 65-76.	1.1	10
54	Mechanical-electrical-thermal responses of lithium-ion pouch cells under dynamic loading: A comparative study between fresh cells and aged ones. <i>International Journal of Impact Engineering</i> , 2022, 166, 104237.	2.4	10

#	ARTICLE	IF	CITATIONS
55	Sandwich Structure Design of a Cooling Fin for Battery Modules Against Impact Loads. <i>Automotive Innovation</i> , 2020, 3, 260-269.	3.1	9
56	Response Surface Generation for Kinematics and Injury Prediction in Pedestrian Impact Simulations. <i>SAE International Journal of Transportation Safety</i> , 0, 1, 286-296.	0.4	8
57	Spot Weld Layout Optimization of Tube Crash Performance With Manufacturing Constraints. <i>Journal of Manufacturing Science and Engineering, Transactions of the ASME</i> , 2014, 136, .	1.3	8
58	Mechanical Anisotropy and Strain-Rate Dependency of a Large Format Lithium-Ion Battery Cell: Experiments and Simulations. , 0, , .		8
59	Fracture Mode Analysis of Lithium-Ion Battery Under Mechanical Loading. , 2015, , .		7
60	A novel technique for measuring 3D deformation of adhesively bonded single lap joint. <i>Science China: Physics, Mechanics and Astronomy</i> , 2016, 59, 1.	2.0	7
61	A Novel Planar Tension Test of Rubber for Evaluating the Prediction Ability of the Modified Eight-Chain Model under Moderate Finite Deformation. <i>Rubber Chemistry and Technology</i> , 2005, 78, 879-892.	0.6	6
62	A bumper model with dynamic contact stiffness for simulations of pedestrian legform impacts. <i>Proceedings of the Institution of Mechanical Engineers, Part D: Journal of Automobile Engineering</i> , 2013, 227, 905-913.	1.1	6
63	A response-surface-based tool for vehicle front-end design for pedestrian impact protection using human body model. <i>International Journal of Vehicle Design</i> , 2014, 66, 347.	0.1	6
64	Investigation on the stable and stick-slip crack propagation behaviors in double cantilever beam test. <i>Journal of Adhesion</i> , 2020, 96, 1198-1218.	1.8	6
65	Extending a Homogenized Model for Characterizing Multidirectional Jellyroll Failure in Prismatic Lithium-Ion Batteries. <i>Energies</i> , 2021, 14, 3444.	1.6	6
66	Damage of prismatic lithium-ion cells subject to bending: Test, model, and detection. <i>EcoMat</i> , 2022, 4, .	6.8	6
67	Estimation of energy-absorption space for pedestrian leg protection of car front-end structures. <i>International Journal of Vehicle Design</i> , 2012, 60, 20.	0.1	5
68	A Rate-Dependent Model for Metals Based on a Master Curve of Normalized Hardening Behavior of DP Steels. <i>Journal of Dynamic Behavior of Materials</i> , 2016, 2, 272-282.	1.1	5
69	Influence of Mechanical Interaction Between Lithium-Ion Pouch Cells in a Simplified Battery Module Under Impact Loading. , 2017, , .		5
70	Dynamic Behavior of Self-Piercing Riveted and Mechanical Clinched Joints of Dissimilar Materials: An Experimental Comparative Investigation. <i>Advances in Materials Science and Engineering</i> , 2019, 2019, 1-12.	1.0	5
71	Extension of Non-Associated Hill48 Model for Characterizing Dynamic Mechanical Behavior of a Typical High-Strength Steel Sheet. , 2014, , .		4
72	Identification of True Stress-Strain Curve of Thermoplastic Polymers under Biaxial Tension. <i>SAE International Journal of Materials and Manufacturing</i> , 2016, 9, 768-775.	0.3	4

#	ARTICLE	IF	CITATIONS
73	Experimental study on the mechanical behavior and failure mechanism of 3d MWK carbon/epoxy composites under quasi-static loading. <i>Polymer Composites</i> , 2016, 37, 3486-3498.	2.3	4
74	Influence of pre-straining and heating on strain-rate sensitivity of AA5182-O. <i>International Journal of Impact Engineering</i> , 2022, 161, 104106.	2.4	4
75	Safety Comparison of Geometric Configurations of Electric Vehicle Battery under Side Pole Impact. , 0, , .		4
76	Experimental and Numerical Analysis of the System Ringing in Intermediate Strain Rate Tests. , 2016, , .		3
77	On Utilization of Material Failure Criterion in Modeling Pull-Out Failure of Spot-Welded Joints. , 2013, , .		2
78	Influence of Feature Lines of Vehicle Hood Styling on Headform Kinematics and Injury Evaluation in Car-to-Pedestrian Impact Simulations. <i>SAE International Journal of Transportation Safety</i> , 0, 2, 182-189.	0.4	2
79	A study on hygrothermal degradation and recovery of an epoxy adhesive using molecular dynamics simulation. <i>Journal of Adhesion Science and Technology</i> , 2015, 29, 753-766.	1.4	2
80	Numerical and Experimental Investigation on Tube Hot Gas Forming Process for UHSS. <i>Journal of Physics: Conference Series</i> , 2018, 1063, 012172.	0.3	2
81	Characterization of Metal Foil in Anisotropic Fracture Behavior with Dynamic Tests. , 0, , .		2
82	Development of a Parametric Vehicle Front Structure Model for Pedestrian Impact Simulations. <i>Lecture Notes in Electrical Engineering</i> , 2013, , 295-309.	0.3	2
83	Effect of Stress Softening in Bumper Foams on the Low Speed Impact Performance of Vehicles. <i>SAE International Journal of Materials and Manufacturing</i> , 0, 1, 548-553.	0.3	1
84	Spot Weld Layout Optimization With Manufacturing Constraints for Vehicle Structural Performance. , 2010, , .		1
85	Testing and Modeling the Effect of Strain-Rate on Plastic Anisotropy for a Traditional High Strength Steel. , 2015, , .		1
86	Temperature influence on impact protection performance of steel-plastic structuresâ€“Manifested by head impact against pillars of passenger car. <i>International Journal of Impact Engineering</i> , 2022, 159, 104054.	2.4	1
87	Development of a Legform Impactor with 4-DOF Knee-Joint for Pedestrian Safety Assessment in Omni-Direction Impacts. , 0, , .		0
88	Influencing Factors of Contact Force Distribution in Pedestrian Upper Legform Impact with Vehicle Front-End. <i>SAE International Journal of Passenger Cars - Mechanical Systems</i> , 0, 5, 231-241.	0.4	0
89	Characterization of Mechanical Behavior of Thermoplastics with Local Deformation Measurement. , 2012, , .		0
90	Experimental Investigation of the Mechanical Behavior of Aluminum Adhesive Joints under Mixed-Mode Loading Conditions. <i>SAE International Journal of Materials and Manufacturing</i> , 2018, 11, 349-359.	0.3	0

#	ARTICLE	IF	CITATIONS
91	Model Development and Validation of Offset Deformable Barrier under Impact Intruding Load. , 0, , .		0
92	Comparative Study of Dissimilar Materials Joints. , 0, , .		0