

Wolfgang Sinz

List of Publications by Year in descending order

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papers

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citations

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31
all docs

31
docs citations

31
times ranked

306
citing authors

#	ARTICLE	IF	CITATIONS
1	Finite element model approach of a cylindrical lithium ion battery cell with a focus on minimization of the computational effort and short circuit prediction. Journal of Power Sources, 2017, 360, 605-617.	7.8	39
2	Evaluating the trade-off between mechanical and electrochemical performance of separators for lithium-ion batteries: Methodology and application. Journal of Power Sources, 2016, 306, 702-710.	7.8	37
3	A "Microscopic"™ Structural Mechanics FE Model of a Lithium-Ion Pouch Cell for Quasi-Static Load Cases. SAE International Journal of Passenger Cars - Mechanical Systems, 0, 6, 1044-1054.	0.4	29
4	Safety assessment of electrically cycled cells at high temperatures under mechanical crush loads. ETransportation, 2020, 6, 100087.	14.8	29
5	Analytical Dissection of an Automotive Li-Ion Pouch Cell. Batteries, 2019, 5, 67.	4.5	26
6	Method for Determination of the Internal Short Resistance and Heat Evolution at Different Mechanical Loads of a Lithium Ion Battery Cell Based on Dummy Pouch Cells. Batteries, 2016, 2, 8.	4.5	23
7	A Data-Driven Method Towards Minimizing Collision Severity for Highly Automated Vehicles. IEEE Transactions on Intelligent Vehicles, 2021, 6, 723-735.	12.7	18
8	Influences of pre-crash braking induced dummy " Forward displacements on dummy behaviour during EuroNCAP frontal crashtest. Accident Analysis and Prevention, 2014, 62, 268-275.	5.7	16
9	Development and evaluation of potential accident scenarios involving pedestrians and AEB-equipped vehicles to demonstrate the efficiency of an enhanced open-source simulation framework. Accident Analysis and Prevention, 2020, 148, 105831.	5.7	13
10	In cervical arthroplasty, only prosthesis with flexible biomechanical properties should be used for achieving a near-physiological motion pattern. Journal of Orthopaedic Surgery and Research, 2020, 15, 391.	2.3	12
11	Thermal Conductivity in Aged Li-Ion Cells under Various Compression Conditions and State-of-Charge. Batteries, 2021, 7, 42.	4.5	12
12	Integration of a crashworthy battery in a fully electric city bus. International Journal of Crashworthiness, 2012, 17, 105-118.	1.9	11
13	In Situ Measurement of Orthotropic Thermal Conductivity on Commercial Pouch Lithium-Ion Batteries with Thermoelectric Device. Batteries, 2020, 6, 10.	4.5	11
14	Analysis and Investigation of Thermal Runaway Propagation for a Mechanically Constrained Lithium-Ion Pouch Cell Module. Batteries, 2021, 7, 49.	4.5	11
15	Multiscale Analysis and Safety Assessment of Fresh and Electrical Aged Lithium-Ion Pouch Cells Focusing on Mechanical Behavior. Energies, 2022, 15, 847.	3.1	9
16	Concepts for Mechanical Abuse Testing of High-Voltage Batteries. , 2012, , .		7
17	Investigation of the electro-mechanical behavior of automotive high voltage busbars under combined electrical load with varying indenter geometry and environmental conditions. Journal of Energy Storage, 2020, 32, 101861.	8.1	7
18	The development of a 3D-Navier"Stokes code for the simulation of an airbag inflation. Simulation Modelling Practice and Theory, 2008, 16, 885-899.	3.8	5

#	ARTICLE	IF	CITATIONS
19	Optimized Nail for Penetration Test on Lithium-Ion Cells and Its Utilization for the Validation of a Multilayer Electro-Thermal Model. Batteries, 2022, 8, 32.	4.5	5
20	Case study of a frontal car accident involving three fatally injured children. International Journal of Crashworthiness, 2012, 17, 75-91.	1.9	4
21	Influence of pitching and yawing during frontal passenger vehicle crash tests on driver occupant's kinematics and injury. International Journal of Crashworthiness, 2013, 18, 356-370.	1.9	4
22	Experimental and Numerical Investigation of the Behavior of Automotive Battery Busbars under Varying Mechanical Loads. Energies, 2020, 13, 6572.	3.1	4
23	Assessment of the Effectiveness of Different Safety Measures at Tunnel Lay-Bys and Portals to Protect Occupants in Passenger Cars. Infrastructures, 2021, 6, 81.	2.8	2
24	Cervical disc prostheses need a variable center of rotation for flexion / extension below disc level, plus a separate COR for lateral bending above disc level to more closely replicate in-vivo motion: MRI-based biomechanical in-vivo study. BMC Musculoskeletal Disorders, 2022, 23, 227.	1.9	2
25	Method for In-Operando Contamination of Lithium Ion Batteries for Prediction of Impurity-Induced Non-Obvious Cell Damage. Batteries, 2022, 8, 35.	4.5	2
26	Simulation Based Analysis of Test Results. , 0, , .		1
27	On the Dynamic Electro-Mechanical Failure Behavior of Automotive High-Voltage Busbars Using a Split Hopkinson Pressure Bar. Materials, 2021, 14, 6320.	2.9	1
28	Precise Dummy Head Trajectories in Crash Tests based on Fusion of Optical and Electrical Data: Influence of Sensor Errors and Initial Values. , 0, , .		0
29	Comparison of optimisation strategies for the determination of precise dummy head trajectories based on the fusion of electrical and optical measured data in frontal crash scenarios. International Journal of Vehicle Systems Modelling and Testing, 2016, 11, 23.	0.1	0
30	Methods to Prevent or Mitigate Accidents with Large Animals. Advanced Structured Materials, 2013, , 69-97.	0.5	0