

# Wolfgang Sinz

## List of Publications by Year in descending order

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30  
papers

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citations

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docs citations

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times ranked

306  
citing authors

#	ARTICLE	IF	CITATIONS
1	Multiscale Analysis and Safety Assessment of Fresh and Electrical Aged Lithium-Ion Pouch Cells Focusing on Mechanical Behavior. <i>Energies</i> , 2022, 15, 847.	3.1	9
2	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. <i>BMC Musculoskeletal Disorders</i> , 2022, 23, 227.	1.9	2
3	Optimized Nail for Penetration Test on Lithium-Ion Cells and Its Utilization for the Validation of a Multilayer Electro-Thermal Model. <i>Batteries</i> , 2022, 8, 32.	4.5	5
4	Method for In-Operando Contamination of Lithium Ion Batteries for Prediction of Impurity-Induced Non-Obvious Cell Damage. <i>Batteries</i> , 2022, 8, 35.	4.5	2
5	A Data-Driven Method Towards Minimizing Collision Severity for Highly Automated Vehicles. <i>IEEE Transactions on Intelligent Vehicles</i> , 2021, 6, 723-735.	12.7	18
6	Assessment of the Effectiveness of Different Safety Measures at Tunnel Lay-Bys and Portals to Protect Occupants in Passenger Cars. <i>Infrastructures</i> , 2021, 6, 81.	2.8	2
7	Thermal Conductivity in Aged Li-Ion Cells under Various Compression Conditions and State-of-Charge. <i>Batteries</i> , 2021, 7, 42.	4.5	12
8	Analysis and Investigation of Thermal Runaway Propagation for a Mechanically Constrained Lithium-Ion Pouch Cell Module. <i>Batteries</i> , 2021, 7, 49.	4.5	11
9	On the Dynamic Electro-Mechanical Failure Behavior of Automotive High-Voltage Busbars Using a Split Hopkinson Pressure Bar. <i>Materials</i> , 2021, 14, 6320.	2.9	1
10	Safety assessment of electrically cycled cells at high temperatures under mechanical crush loads. <i>ETransportation</i> , 2020, 6, 100087.	14.8	29
11	Development and evaluation of potential accident scenarios involving pedestrians and AEB-equipped vehicles to demonstrate the efficiency of an enhanced open-source simulation framework. <i>Accident Analysis and Prevention</i> , 2020, 148, 105831.	5.7	13
12	Investigation of the electro-mechanical behavior of automotive high voltage busbars under combined electrical load with varying indenter geometry and environmental conditions. <i>Journal of Energy Storage</i> , 2020, 32, 101861.	8.1	7
13	In cervical arthroplasty, only prosthesis with flexible biomechanical properties should be used for achieving a near-physiological motion pattern. <i>Journal of Orthopaedic Surgery and Research</i> , 2020, 15, 391.	2.3	12
14	Experimental and Numerical Investigation of the Behavior of Automotive Battery Busbars under Varying Mechanical Loads. <i>Energies</i> , 2020, 13, 6572.	3.1	4
15	In Situ Measurement of Orthotropic Thermal Conductivity on Commercial Pouch Lithium-Ion Batteries with Thermoelectric Device. <i>Batteries</i> , 2020, 6, 10.	4.5	11
16	Analytical Dissection of an Automotive Li-Ion Pouch Cell. <i>Batteries</i> , 2019, 5, 67.	4.5	26
17	Finite element model approach of a cylindrical lithium ion battery cell with a focus on minimization of the computational effort and short circuit prediction. <i>Journal of Power Sources</i> , 2017, 360, 605-617.	7.8	39
18	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. <i>Batteries</i> , 2016, 2, 8.	4.5	23

#	ARTICLE	IF	CITATIONS
19	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
20	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
21	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
22	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
23	Methods to Prevent or Mitigate Accidents with Large Animals. Advanced Structured Materials, 2013, , 69-97.	0.5	0
24	Case study of a frontal car accident involving three fatally injured children. International Journal of Crashworthiness, 2012, 17, 75-91.	1.9	4
25	Integration of a crashworthy battery in a fully electric city bus. International Journal of Crashworthiness, 2012, 17, 105-118.	1.9	11
26	Concepts for Mechanical Abuse Testing of High-Voltage Batteries. , 2012, , .		7
27	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
28	Simulation Based Analysis of Test Results. , 0, , .		1
29	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
30	Precise Dummy Head Trajectories in Crash Tests based on Fusion of Optical and Electrical Data: Influence of Sensor Errors and Initial Values. , 0, , .		0