Mervi Paulasto-KrÃ¶ckel

List of Publications by Year
in descending order

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Version: 2024-02-01

		840119	752256
30	411	11	20
papers	citations	h-index	g-index

32	32	32	550
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Heat generation in high power prismatic Li-ion battery cell with LiMnNiCoO₂cathode material. International Journal of Energy Research, 2014, 38, 1424-1437.	2.2	78
2	Chemically Stable Atomic-Layer-Deposited Al₂O₃ Films for Processability. ACS Omega, 2017, 2, 3390-3398.	1.6	54
3	Shock Impact Reliability and Failure Analysis of a Three-Axis MEMS Gyroscope. Journal of Microelectromechanical Systems, 2014, 23, 347-355.	1.7	41
4	Microstructural Characterization and Mechanical Performance of Wafer-Level SLID Bonded Au-Sn and Cu-Sn Seal Rings for MEMS Encapsulation. Journal of Electronic Materials, 2015, 44, 4533-4548.	1.0	36
5	Mechanical properties and reliability of aluminum nitride thin films. Journal of Alloys and Compounds, 2019, 772, 306-313.	2.8	35
6	Structural and chemical analysis of annealed plasma-enhanced atomic layer deposition aluminum nitride films. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2016, 34, .	0.9	22
7	Thermal simulation of high-power Li-ion battery with LiMn1/3Ni1/3Co1/3O2 cathode on cell and module levels. International Journal of Energy Research, 2014, 38, 564-572.	2.2	16
8	Atomic layer deposition of AlN using atomic layer annealingâ€"Towards high-quality AlN on vertical sidewalls. Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films, 2021, 39, .	0.9	15
9	Blistering mechanisms of atomic-layer-deposited AlN and Al2O3 films. Applied Physics Letters, 2017, 111, .	1.5	14
10	The Role of Ultrafine Crystalline Behavior and Trace Impurities in Copper on Intermetallic Void Formation. ACS Applied Electronic Materials, 2019, 1, 88-95.	2.0	14
11	Wafer-Level AuSn/Pt Solidâ€"Liquid Interdiffusion Bonding. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2018, 8, 169-176.	1.4	13
12	Characterization of AlScN-Based Multilayer Systems for Piezoelectric Micromachined Ultrasound Transducer (pMUT) Fabrication. Journal of Microelectromechanical Systems, 2021, 30, 290-298.	1.7	11
13	Reliability assessment of MEMS devices — A case study of a 3 axis gyroscope. , 2012, , .		9
14	Interfacial void segregation of Cl in Cu-Sn micro-connects. Electronic Materials Letters, 2017, 13, 307-312.	1.0	6
15	The effect of platinum contact metallization on Cu/Sn bonding. Journal of Materials Science: Materials in Electronics, 2018, 29, 15212-15222.	1.1	6
16	Metalorganic chemical vapor deposition of aluminum nitride on vertical surfaces. Journal of Crystal Growth, 2020, 531, 125345.	0.7	5
17	Void formation in Cu-Sn SLID bonding for MEMS. , 2014, , .		4
18	Aluminum Nitride to Silicon Direct Bonding for an Alternative Silicon-On-Insulator Platform. ACS Applied Materials & Interfaces, 2021, 13, 38857-38865.	4.0	4

#	Article	IF	Citations
19	Finite Element Simulation of Solidâ€"Liquid Interdiffusion Bonding Process: Understanding Process-Dependent Thermomechanical Stress. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2022, 12, 847-856.	1.4	4
20	Study on thermomechanical reliability of power modules and thermal grease pump-out mechanism. , 2015, , .		3
21	Process Integration and Reliability of Wafer Level SLID Bonding for Poly-Si TSV capped MEMS. , 2018, , .		3
22	Demonstrating 170 Â°C Low-Temperature Cuâ€"Inâ€"Sn Wafer-Level Solid Liquid Interdiffusion Bonding. IEEE Transactions on Components, Packaging and Manufacturing Technology, 2022, 12, 446-453.	1.4	3
23	Study of Cu-Sn-In system for low temperature, wafer level solid liquid inter-diffusion bonding. , 2020, , .		3
24	Temperature Stability of Electrode/AlScN Multilayer Systems for pMUT Process Integration. , 2020, , .		3
25	Thermal investigation of a battery module for work machines. , 2011, , .		2
26	Interfacial Reactions Between ZnAl(Ge) Solders on Cu and Ni Substrates. Journal of Electronic Materials, 2017, 46, 2323-2333.	1.0	1
27	(Invited) Low Temperature Wafer-Level Cu-in-Sn Solid-Liquid Interdiffusion Bonding. ECS Meeting Abstracts, 2020, MA2020-02, 1644-1644.	0.0	1
28	Finite element modeling for reliability assessment of solder interconnections in a power transistor. , 2012, , .		0
29	Comparative study on radio frequency and reliability performance of electronically conductive adhesives. , 2016, , .		0
30	Calculation of Phase Diagrams and First-Principles Study of Germanium Impacts on Phosphorus Distribution in Czochralski Silicon. Journal of Electronic Materials, 2021, 50, 4272-4288.	1.0	0