Bismarck Luiz Silva

List of Publications by Year
in descending order

48 papers	714 citations	516215 16 h-index	580395 25 g-index
49 all docs	49 docs citations	49 times ranked	383 citing authors

#	Article	IF	Citations
1	Microstructural development and mechanical properties of a near-eutectic directionally solidified Snâ€“Bi solder alloy. Materials Characterization, 2015, 107, 43-53.	1.9	53
2	Complex eutectic growth and Bi precipitation in ternary Sn-Bi-Cu and Sn-Bi-Ag alloys. Journal of Alloys and Compounds, 2017, 691, 600-605.	2.8	51
3	Thermal Parameters, Microstructure, and Mechanical Properties of Directionally Solidified Sn-0.7Âwt.%Cu Solder Alloys Containing 0Âppm to 1000Âppm Ni. Journal of Electronic Materials, 2013, 42, 179-191.	1.0	44
4	Cu and Ag additions affecting the solidification microstructure and tensile properties of Sn-Bi lead-free solder alloys. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2017, 705, 325-334.	2.6	43
5	Microstructure, phases morphologies and hardness of a Biâ€“Ag eutectic alloy for high temperature soldering applications. Materials & Design, 2014, 58, 482-490.	5.1	40
6	The effects of microstructure and intermetallic phases of directionally solidified Alâ€“Fe alloys on microhardness. Materials Letters, 2012, 89, 291-295.	1.3	37
7	Snâ€“0.7 wt%Cuâ€“(xNi) alloys: Microstructureâ€“mechanical properties correlations with solder/substrate interfacial heat transfer coefficient. Journal of Alloys and Compounds, 2015, 632, 274-285.	2.8	37
8	Evaluation of solder/substrate thermal conductance and wetting angle of Snâ€“0.7 wt%Cuâ€“(0â€“0.1) Tj ETQq0 0 0 rgBT /Overlock 10	1.3	36
9	Cooling thermal parameters and microstructure features of directionally solidified ternary Snâ€“Biâ€“(Cu,Ag) solder alloys. Materials Characterization, 2016, 114, 30-42.	1.9	33
10	Assessment of Tertiary Dendritic Growth and Its Effects on Mechanical Properties of Directionally Solidified Sn-0.7Cu-xAg Solder Alloys. Journal of Electronic Materials, 2014, 43, 1347-1361.	1.0	29
11	Effects of Solidification Thermal Parameters on Microstructure and Mechanical Properties of Sn-Bi Solder Alloys. Journal of Electronic Materials, 2017, 46, 1754-1769.	1.0	29
12	A comparative analysis of microstructural features, tensile properties and wettability of hypoperitectic and peritectic Sn-Sb solder alloys. Microelectronics Reliability, 2018, 81, 150-158.	0.9	26
13	Dendritic Growth, Solidification Thermal Parameters, and Mg Content Affecting the Tensile Properties of Al-Mg-1.5 Wt Pct Fe Alloys. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2017, 48, 1841-1855.	1.1	22
14	Correlation between dendrite arm spacing and microhardness during unsteady-state directional solidification of Alâ€“Ni alloys. Philosophical Magazine Letters, 2011, 91, 337-343.	0.5	21
15	The use of a directional solidification technique to investigate the interrelationship of thermal parameters, microstructure and microhardness of Biâ€“Ag solder alloys. Materials Characterization, 2014, 96, 115-125.	1.9	20
16	An alternative thermal approach to evaluate the wettability of solder alloys. Applied Thermal Engineering, 2016, 107, 431-440.	3.0	19
17	Directional solidification of a Sn-0.2Ni solder alloy in water-cooled copper and steel molds: Related effects on the matrix micromorphology, nature of intermetallics and tensile properties. Journal of Alloys and Compounds, 2017, 723, 1039-1052.	2.8	18
18	The role of eutectic colonies in the tensile properties of a Snâ€“Zn eutectic solder alloy. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2020, 776, 138959.	2.6	17

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19	Solder/substrate interfacial thermal conductance and wetting angles of Biâ€“Ag solder alloys. Journal of Materials Science: Materials in Electronics, 2016, 27, 1994-2003.	1.1	15
20	Assessing microstructure and mechanical behavior changes in a Sn-Sb solder alloy induced by cooling rate. Journal of Alloys and Compounds, 2019, 809, 151780.	2.8	12
21	The application of an analytical model to solve an inverse heat conduction problem: Transient solidification of a Sn-Sb peritectic solder alloy on distinct substrates. Journal of Manufacturing Processes, 2019, 48, 164-173.	2.8	11
22	The roles of dendritic spacings and Ag3Sn intermetallics on hardness of the SAC307 solder alloy. Microelectronics Reliability, 2014, 54, 2929-2934.	0.9	10
23	Multiple linear regression approach to predict tensile properties of Sn-Ag-Cu (SAC) alloys. Materials Letters, 2021, 304, 130587.	1.3	9
24	Dendritic Growth, Eutectic Features and Their Effects on Hardness of a Ternary Snâ€“Znâ€“Cu Solder Alloy. Acta Metallurgica Sinica (English Letters), 2017, 30, 528-540.	1.5	8
25	Microstructure characterization and tensile properties of directionally solidified Sn-52â€¯wt% Bi-1wt% Sb and Sn-52wt% Bi-2wt% Sb alloys. Materials Characterization, 2020, 166, 110445.	1.9	8
26	Interplay of Wettability, Interfacial Reaction and Interfacial Thermal Conductance in Sn-0.7Cu Solder Alloy/Substrate Couples. Journal of Electronic Materials, 2020, 49, 173-187.	1.0	7
27	Microstructure-property relations in as-atomized and as-extruded Sn-Cu (-Ag) solder alloys. Journal of Alloys and Compounds, 2016, 680, 259-267.	2.8	6
28	Assessing microstructures and mechanical resistances of as-atomized and as-extruded samples of Al-1wt%Fe-1wt%Ni alloy. Journal of Alloys and Compounds, 2017, 691, 952-960.	2.8	6
29	Transient Unidirectional Solidification, Microstructure and Intermetallics in Sn-Ni Alloys. Materials Research, 2018, 21, .	0.6	6
30	Tailoring Morphology and Size of Microstructure and Tensile Properties of Sn-5.5Âwt.%Sb-1Âwt.%(Cu,Ag) Solder Alloys. Journal of Electronic Materials, 2018, 47, 1647-1657.	1.0	5
31	High Cooling Rate, Regular and Plate Like Cells in Snâ€“Ni Solder Alloys. Advanced Engineering Materials, 2018, 20, 1701179.	1.6	5
32	Ag-containing aluminum-silicon alloys as an alternative for as-cast components of electric vehicles. Materials Research Express, 2021, 8, 016527.	0.8	5
33	Correlations of microstructure and mechanical properties of the ternary Sn-9wt%Zn-2wt%Cu solder alloy. Materials Research, 2018, 21, .	0.6	4
34	Wetting behavior of Snâ€“Agâ€“Cu and Snâ€“Biâ€“X alloys: insights into factors affecting cooling rate. Journal of Materials Research and Technology, 2019, 8, 1581-1586.	2.6	4
35	Sn-0.5Cu(-x)Al Solder Alloys: Microstructure-Related Aspects and Tensile Properties Responses. Metals, 2019, 9, 241.	1.0	3
36	Modifications on solidification thermal parameters, microstructure and hardness induced by Cu additions to a hypereutectic Zn 8Al alloy. Materials Characterization, 2021, 174, 110936.	1.9	3

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37	Analysis of extensive wetting angle vs. cooling rate data in Bi-, Zn- and Sn-based solder alloys. Microelectronics Reliability, 2022, 135, 114593.	0.9	3
38	Effects of cellular growth on fatigue life of directionally solidified hypoeutectic Al-Fe Alloys. Materials Research, 2014, 17, 767-774.	0.6	2
39	Microstructural and segregation effects affecting the corrosion behavior of a highâ€temperature Biâ€Ag solder alloy in dilute chloride solution. Journal of Applied Electrochemistry, 2021, 51, 769-780.	1.5	2
40	Local solidification thermal parameters affecting the eutectic extent in Sn-Cu and Sn-Bi solder alloys. Soldering and Surface Mount Technology, 2021, ahead-of-print, .	0.9	2
41	Dendritic and eutectic growth of Snâ€“0.5â€‰wt.%Cu solders with low alloying Al levels. Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, 2019, 233, 1733-1737.	0.7	1
42	Influence of Microstructure Length Scale on the Tensile Properties and Superplasticity of Cu-Doped Sn-34Bi TIM Alloy. Journal of Electronic Materials, 2019, 48, 7662-7673.	1.0	1
43	Influence of Morphology on Fracture Propagation of PMMAe/PC Blend in Tensile Tests at High Strain Rate. Macromolecular Symposia, 2020, 394, 2000153.	0.4	1
44	Experimental and numerical analyses of laser remelted Snâ€“0.7Âwt%Cu solder surfaces. Journal of Materials Science: Materials in Electronics, 2015, 26, 3100-3107.	1.1	0
45	Correlation between microstructure and hardness of a Bi-1.5wt%Ag lead-free solder alloy. IOP Conference Series: Materials Science and Engineering, 2016, 117, 012028.	0.3	0
46	CORRELAÃ‡ÃƒO ENTRE MICROESTRUTURA E DUREZA DA LIGA LIVRE DE CHUMBO Bi-1,5%Ag. , 0, , .		0
47	Dependence of Hardness on Microstructure of a Directionally Solidified Sn-40wt.%Bi-0.7wt.%Cu Alloy. , 2015, , 381-389.		0
48	Effect of Aging on Dendritic Array, Ag3Sn Spacing, and Hardness of a Sn-2Ag-0.7Cu Solder Alloy. Journal of Electronic Materials, 0, , .	1.0	0