Alberto Passerone

List of Publications by Year
in descending order

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115 papers	3,186 citations	136950 32 h-index	182427 51 g-index
125 all docs	125 docs citations	125 times ranked	1603 citing authors

#	Article	IF	Citations
1	Zirconia-high entropy alloys joints for biomedical applications: The role of Ag-based fillers on interfacial reactivity. Journal of Alloys and Compounds, 2022, 909, 164764.	5.5	7
2	Wetting and interfacial reactivity of Niâ€“Al alloys with Al2O3 and ZrO2 ceramics. Journal of Materials Science, 2021, 56, 7849-7861.	3.7	6
3	Assessment of advanced joint Hfb2/Nib/Hfb2 by nanoindentation. AIP Conference Proceedings, 2021, , .	0.4	2
4	Wetting and interfacial phenomena in Ni-Cr-Hf/sapphire systems. Journal of the European Ceramic Society, 2020, 40, 521-528.	5.7	4
5	High-temperature-reactivity of Alâ€“Ti alloys in contact with SiC. Journal of Alloys and Compounds, 2020, 817, 152715.	5.5	11
6	Wetting and interfacial behavior of Snâ€“Ti alloys on zirconia. Journal of Materials Science, 2019, 54, 812-822.	3.7	24
7	Interactions, joining and microstructure of Sn-Ti/ZrO2 system. Journal of the European Ceramic Society, 2019, 39, 1525-1531.	5.7	29
8	Wetting and spreading behavior of Snâ€“Ti alloys on SiC. Materialia, 2018, 3, 57-63.	2.7	13
9	High Temperature Solid-Liquid Interactions in Metal-Ceramic Brazing: A Critical Review. Materials Science Forum, 2017, 884, 132-165.	0.3	7
10	Surface engineering of SiC_f/SiC composites by selective thermal removal. International Journal of Applied Ceramic Technology, 2017, 14, 287-294.	2.1	7
11	Wetting and interfacial phenomena of Niâ€Ta alloys on <scp>CVD</scp>â€SiC. International Journal of Applied Ceramic Technology, 2017, 14, 295-304.	2.1	7
12	Wettability of SiC and graphite by Coâ€“Ta alloys: evaluation of the reactivity supported by thermodynamic calculations. Journal of Materials Science, 2017, 52, 13414-13426.	3.7	10
13	Angle of wetting of aluminum oxide with a high-carbon iron melt. Russian Metallurgy (Metally), 2017, 2017, 477-482.	0.5	1
14	Brazing transparent YAG to Ti6Al4V: reactivity and characterization. Journal of the European Ceramic Society, 2016, 36, 4185-4196.	5.7	24
15	Critical Issues for Producing UHTC-Brazed Joints: Wetting and Reactivity. Journal of Materials Engineering and Performance, 2016, 25, 3330-3347.	2.5	10
16	Wettability of transparent YAG (Y3Al5O12) by molten Agâ€“Cuâ€“Ti alloys. Journal of the European Ceramic Society, 2015, 35, 2895-2906.	5.7	27
17	Wetting and interfacial behavior of molten Cu on Coâ€“Si(â€“Mo) coated SiC. Ceramics International, 2015, 41, 13493-13501.	4.8	18
18	Surface characterization of Mo-implanted 6Hâ€“SiC by high temperature non-reactive wetting tests with the Niâ€“56Si alloy. Ceramics International, 2014, 40, 7227-7234.	4.8	15

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19	Joining of ZrB2 Ceramics to Ti6Al4V by Ni-Based Interlayers. Journal of Materials Engineering and Performance, 2014, 23, 1555-1560.	2.5	21
20	Experimental investigations and thermodynamic modeling in the ZrB2Ni section of the BNiZr system. Journal of Alloys and Compounds, 2014, 592, 115-120.	5.5	11
21	Isothermal solidâ€“liquid transitions in the (Ni,B)/ZrB2 system as revealed by sessile drop experiments. Journal of Materials Science, 2013, 48, 5029-5035.	3.7	15
22	Wetting and interfacial phenomena in relation to joining of alumina via Co/Nb/Co interlayers. Journal of the European Ceramic Society, 2013, 33, 539-547.	5.7	20
23	A review of transition metals diborides: from wettability studies to joining. Journal of Materials Science, 2012, 47, 8275-8289.	3.7	30
24	ZrB2â€“SiC/Ti6Al4V joints: wettability studies using Ag- and Cu-based braze alloys. Journal of Materials Science, 2012, 47, 8439-8449.	3.7	31
25	Control of Interfacial Reactivity Between ZrB2 and Ni-Based Brazing Alloys. Journal of Materials Engineering and Performance, 2012, 21, 660-666.	2.5	25
26	Diamondâ€“metal interfaces in cutting tools: a review. Journal of Materials Science, 2012, 47, 3252-3264.	3.7	167
27	Twenty Years of Surface Tension Measurements in Space. Microgravity Science and Technology, 2011, 23, 101-111.	1.4	11
28	Survey on wetting of SiC by molten metals. Ceramics International, 2010, 36, 1177-1188.	4.8	161
29	Wetting and interactions of Ni- and Co-based superalloys with different ceramic materials. Journal of Materials Science, 2010, 45, 2071-2079.	3.7	67
30	Guest Editorsâ€™ Editorial: HTC-2009. Journal of Materials Science, 2010, 45, 1977-1978.	3.7	1
31	SiC/SiC and SiC/Kovar joining by Niâ€“Si and Mo interlayers. Journal of Materials Science, 2010, 45, 4299-4307.	3.7	47
32	Ab initio simulations of the Ag(111)/Al2O3 interface at intermediate oxygen partial pressures. Journal of Materials Science, 2010, 45, 4265-4270.	3.7	14
33	Preface to the special issue â€œhigh-temperature joiningâ€. Journal of Materials Science, 2010, 45, 4255-4255.	3.7	0
34	Overview on Wetting and Joining in Transition Metals Diborides. Advances in Science and Technology, 2010, 64, 98-107.	0.2	16
35	Interactions between Superalloys and Mould Materials for Investment Casting of Turbine Blades. Advances in Science and Technology, 2010, 70, 130-135.	0.2	3
36	Wettability of HfB2 by molten Ni(B) alloys interpreted by CALPHAD methods, Part 1: Definition of the Bâ€“Hfâ€“Ni system. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2010, 34, 2-5.	1.6	14

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37	Wettability of by molten Ni(B) alloys interpreted by CALPHAD methods, Part 2: Wetting and interfacial reactivity. Calphad: Computer Coupling of Phase Diagrams and Thermochemistry, 2010, 34, 6-14.	1.6	21
38	Wetting and interfacial behavior of Niâ€“Si alloy on different substrates. Journal of Materials Science, 2009, 44, 5990-5997.	3.7	32
39	Thermodynamics and surface properties of liquid Cuâ€“B alloys. Surface Science, 2009, 603, 2725-2733.	1.9	10
40	Wetting and interfacial phenomena in Niâ€“HfB2 systems. Acta Materialia, 2009, 57, 356-364.	7.9	47
41	Oxygen influence on ceramics wettability by liquid metals: Ag/Î±-Al2O3â€”Experiments and modelling. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 495, 153-158.	5.6	36
42	Liquid metal/ceramic interactions in the (Cu, Ag, Au)/ZrB2 systems. Journal of the European Ceramic Society, 2007, 27, 3277-3285.	5.7	56
43	Wetting of Group IV diborides by liquid metals. Journal of Materials Science, 2006, 41, 5088-5098.	3.7	45
44	Surface tension measurements of Al-Ni based alloys from ground-based and parabolic flight experiments: Results from the thermolab project. Microgravity Science and Technology, 2006, 18, 73-76.	1.4	8
45	Facility for adsorption and surface tension studies (FAST) on board of shuttle STS-107 mission: Determination of the surface dilational modulus as a function of concentration and temperature for aqueous solutions of dodecyl-dimethyl-phosphine-oxide, in the 0.01â€“0.32 Hz frequency range. Microgravity Science and Technology, 2006, 18, 100-103.	1.4	1
46	Results of microgravity investigation on adsorption and interfacial rheology of soluble surfactants from the experiment FAST onboard STS-107. Microgravity Science and Technology, 2006, 18, 112-116.	1.4	6
47	Surface Properties of Ag-Cu-Zr Liquid Alloys in Relation to the Wettability of Boride Ceramics. Materials Science Forum, 2006, 512, 211-216.	0.3	3
48	Bulk and surface properties of liquid Agâ€“X (X=Ti, Hf) compound forming alloys. Surface Science, 2005, 591, 56-69.	1.9	30
49	Oxygen tensioactivity on liquid-metal drops. Advances in Colloid and Interface Science, 2005, 117, 15-32.	14.7	64
50	Surface and transport properties of Agâ€“Cu liquid alloys. Surface Science, 2005, 576, 175-187.	1.9	73
51	Measurement of thermophysical properties of liquid metallic alloys in a ground- and microgravity based research programme â€” theThermoLab project. Microgravity Science and Technology, 2005, 16, 7-10.	1.4	7
52	Surface tension and viscosity of industrial alloys from parabolic flight experiments â€” Results of theThermoLab project. Microgravity Science and Technology, 2005, 16, 11-14.	1.4	24
53	Results of the Facility for Adsorption and Surface Tension (FAST) experiments onboard STS-107, in the framework of the project FASES. Microgravity Science and Technology, 2005, 16, 196-200.	1.4	6
54	Adsorption properties of C10E8 at water/ hexane interface investigated onboard STS-107, by the FAST facility. Microgravity Science and Technology, 2005, 16, 201-204.	1.4	6

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55	Measurement of contact angle and work of adhesion at high temperature. Journal of Materials Science, 2005, 40, 2271-2280.	3.7	162
56	Wetting and spreading of liquid metals on ZrB2-based ceramics. Journal of Materials Science, 2005, 40, 2295-2300.	3.7	37
57	Thermophysical Properties of IN738LC, MM247LC and CMSX-4 in the Liquid and High Temperature Solid Phase. , 2005, , .		11
58	Metal-ceramic interfaces: wetting and joining processes. International Journal of Materials and Product Technology, 2004, 20, 420.	0.2	11
59	Wetting, spreading and joining in the aluminaâ€“zirconiaâ€“Inconel 738 system. Scripta Materialia, 2004, 50, 325-330.	5.2	59
60	Bulk and surface properties of liquid Xâ€“Zr (X=Ag, Cu) compound forming alloys. Surface Science, 2004, 549, 281-293.	1.9	42
61	Corrosion behaviour of steels in leadâ€“bismuth at 823 K. Journal of Nuclear Materials, 2004, 335, 185-188.	2.7	45
62	Wettability of zirconium diboride ceramics by Ag, Cu and their alloys with Zr. Scripta Materialia, 2003, 48, 191-196.	5.2	82
63	On the application of modelling to study the surface and interfacial phenomena in liquid alloyâ€“ceramic substrate systems. Intermetallics, 2003, 11, 1301-1311.	3.9	38
64	Secondary ion mass spectrometry in the characterisation of boron-based ceramics. Rapid Communications in Mass Spectrometry, 2001, 15, 1-7.	1.5	17
65	A theoretical approach for the interpretation of liquid metal surface tension measurements in the presence of oxygen. ISIJ International, 2000, 40, S139-S143.	1.4	14
66	Joining Technology in Metal-Ceramic Systems. Materials and Manufacturing Processes, 2000, 15, 631-648.	4.7	21
67	Arguments in favour of the space station. Nature, 1998, 392, 432-432.	27.8	0
68	High temperature tensiometry. Studies in Interface Science, 1998, 6, 475-524.	0.0	15
69	Wettability of TiB2 Ceramics by Liquid Cu and Ag-Cu Eutectic Alloys. , 1998, , 87-94.		8
70	Oxygen transport and dynamic surface tension of liquid metals. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 1998, 356, 857-870.	3.4	19
71	Measurement of the Partition Coefficient of Surfactants in Water/Oil Systems. Langmuir, 1997, 13, 4817-4820.	3.5	72
72	Adsorption Kinetics of Alkylphosphine Oxides at Water/Hexane Interface. Journal of Colloid and Interface Science, 1997, 186, 46-52.	9.4	79

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73	The capillary pressure method: A new tool for interfacial tension measurements. , 1996, , 175-185.		5
74	A diffusion-based approach to mixed adsorption kinetics. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 1996, 114, 351-359.	4.7	120
75	Dynamic Interfacial Tension Measurements by a Capillary Pressure Method. Journal of Colloid and Interface Science, 1995, 169, 226-237.	9.4	66
76	Equilibrium Interfacial Tension of Hexane/Water plus Triton X-100. Journal of Colloid and Interface Science, 1995, 169, 238-240.	9.4	38
77	An auger investigation of oxygen-enhanced tin segregation on a liquid Pbâ^'Sn alloy. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1995, 17, 365-380.	0.4	1
78	Liquid metal surface tension measurements: a kinetic-fluodynamic model of surface oxygen availability. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1994, 178, 99-104.	5.6	9
79	Surface reactivity of liquid metal with oxygen and its relationship with surface tension measurements: a kinetic-fluodynamic model. Journal of Materials Science, 1994, 29, 1833-1846.	3.7	26
80	Oxygen mass transfer at liquid-metal-vapour interfaces under a low total pressure. Journal of Materials Science, 1994, 29, 6104-6114.	3.7	28
81	Sorption Kinetics at Liquid-Liquid Interfaces with the Surface-Active Component Soluble in Both Phases. Journal of Colloid and Interface Science, 1994, 163, 309-314.	9.4	32
82	Review: Surface tension and its relations with adsorption, vapourization and surface reactivity of liquid metals. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1993, 161, 31-40.	5.6	34
83	M.I.T.E. maser-4 results: Interfacial tension measurement in microgravity and drop growth instabilities. Advances in Space Research, 1991, 11, 59-68.	2.6	5
84	A new experimental method for the measurement of the interfacial tension between immiscible fluids at zero bond number. Journal of Colloid and Interface Science, 1991, 146, 152-162.	9.4	66
85	Thermodynamic approach to competition between surface and volume reactions. Nuovo Cimento Della Societa Italiana Di Fisica D - Condensed Matter, Atomic, Molecular and Chemical Physics, Biophysics, 1990, 12, 353-376.	0.4	10
86	Influence of oxygen contamination on the surface tension of liquid tin. Journal of Materials Science, 1990, 25, 4266-4272.	3.7	45
87	Drop formation instabilities induced by entrapped gas bubbles. Journal of Colloid and Interface Science, 1990, 140, 436-443.	9.4	25
88	Capillary properties and chemical reactivity: A thermodynamic study. Surface Science, 1989, 219, L521-L526.	1.9	0
89	An automatic technique for measuring the surface tension of liquid metals. High Temperature Technology, 1989, 7, 82-86.	0.3	102
90	A non linear regression analysis of adsorption isotherms of oxygen on liquid metals. Scripta Metallurgica, 1988, 22, 1835-1840.	1.2	1

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91	Thermodynamic study of adsorption in liquid metal-oxygen systems. Surface Science, 1988, 206, 533-553.	1.9	44
92	General relationships between dihedral angles in systems with an intermetallic compound. Scripta Metallurgica, 1987, 21, 937-942.	1.2	2
93	Grain boundary penetration of liquid sulphides in nickel, cobalt, and iron. Materials Science and Technology, 1986, 2, 42-46.	1.6	0
94	An improved regression analysis for automatic surface tension measurements. Mathematics and Computers in Simulation, 1986, 28, 331-335.	4.4	0
95	Density and surface tension of dioctylphthalate, silicone oil and their solutions. Surface and Coatings Technology, 1986, 28, 215-223.	4.8	27
96	Interfacial phenomena in metal-ceramic systems. Materials Chemistry and Physics, 1986, 15, 263-279.	4.0	6
97	Solid-liquid interfacial tensions by the dihedral angle method. A mathematical approach. Acta Metallurgica, 1985, 33, 771-776.	2.1	39
98	On the measurement of the surface tension of DNA solutions. Journal of Colloid and Interface Science, 1984, 102, 295-297.	9.4	9
99	On the calculation of solid-liquid interfacial tension in metallic systems from contact angle data. Journal of Materials Science Letters, 1983, 2, 197-200.	0.5	2
100	Growth of interfacial phases in liquid silver-silica systems. Ultramicroscopy, 1983, 12, 119-120.	1.9	1
101	The surface tension of liquid lead. Journal of Chemical Thermodynamics, 1983, 15, 971-983.	2.0	35
102	Interfacial tensions and adsorption in the Agî—¸Pb system. Scripta Metallurgica, 1982, 16, 547-550.	1.2	29
103	Surface tension and adsorption in liquid silver-oxygen alloys. Acta Metallurgica, 1982, 30, 1597-1604.	2.1	57
104	Equilibrium structural transitions of solid-liquid interfaces in zinc based alloys. Acta Metallurgica, 1982, 30, 1349-1356.	2.1	43
105	Factors limiting the accuracy of measurements of surface tension by the sessile drop method. Journal of Materials Science, 1982, 17, 2895-2901.	3.7	32
106	Wettability of glass substrates by molten nylon-6. Polymer, 1981, 22, 534-538.	3.8	4
107	Experimental study of the solid-liquid equilibrium roughening transition in Zn-In alloys. Journal of Crystal Growth, 1980, 49, 757-760.	1.5	15
108	Isothermal faceted to non-faceted equilibrium transition of solid-liquid interfaces in Znî—¸Biî—¸In alloys. Scripta Metallurgica, 1980, 14, 1089-1092.	1.2	15

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109	Surface tension and density of molten glasses in the system La2O3î—¸Na2Si2O5. Ceramurgia International, 1979, 5, 18-22.	0.3	12
110	Microstructure and interfacial tensions in Zn-In and Zn-Bi alloys. Metal Science, 1979, 13, 359-365.	0.7	20
111	Adsorption of alkylamines on iron. Energetics of adsorption by the contact angle method. The Journal of Physical Chemistry, 1977, 81, 1851-1854.	2.9	0
112	Interfacial tensions in Zn, Zn-Sn and Zn-Sn-Pb systems. Journal of the Less Common Metals, 1977, 52, 37-49.	0.8	48
113	Equilibrium atomic roughness at solid-liquid interfaces of pure metals. Materials Chemistry, 1976, 1, 45-58.	0.3	7
114	Wetting of barium hexaferrite by molten metals. Ceramurgia International, 1975, 1, 23-27.	0.3	3
115	Dip-coating of aluminium by lead. Journal of Materials Science, 1974, 9, 1050-1056.	3.7	2