

Christoph Leyens

List of Publications by Year in descending order

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papers

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#	ARTICLE	IF	CITATIONS
1	Self-Healing Materials. <i>Advanced Materials</i> , 2010, 22, 5424-5430.	11.1	944
2	Titanium Alloys for Aerospace Applications. <i>Advanced Engineering Materials</i> , 2003, 5, 419-427.	1.6	609
3	Some recent trends in research and technology of advanced thermal barrier coatings. <i>Aerospace Science and Technology</i> , 2003, 7, 73-80.	2.5	406
4	Additive manufactured Ti-6Al-4V using welding wire: comparison of laser and arc beam deposition and evaluation with respect to aerospace material specifications. <i>Physics Procedia</i> , 2010, 5, 595-606.	1.2	269
5	Morphology, microstructure, and hardness of titanium (Ti-6Al-4V) blocks deposited by wire-feed additive layer manufacturing (ALM). <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 532, 295-307.	2.6	255
6	Review on Advanced EB-PVD Ceramic Topcoats for TBC Applications. <i>International Journal of Applied Ceramic Technology</i> , 2004, 1, 302-315.	1.1	230
7	Mechanical properties of additive manufactured titanium (Ti-6Al-4V) blocks deposited by a solid-state laser and wire. <i>Materials & Design</i> , 2011, 32, 4665-4675.	5.1	184
8	Influence of substrate material on oxidation behavior and cyclic lifetime of EB-PVD TBC systems. <i>Surface and Coatings Technology</i> , 2001, 146-147, 117-123.	2.2	172
9	EB-PVD Thermal Barrier Coatings for Aeroengines and Gas Turbines. <i>Advanced Engineering Materials</i> , 2001, 3, 193-204.	1.6	149
10	Deposition of Ti-6Al-4V using laser and wire, part I: Microstructural properties of single beads. <i>Surface and Coatings Technology</i> , 2011, 206, 1120-1129.	2.2	145
11	Effect of composition on the oxidation and hot corrosion resistance of NiAl doped with precious metals. <i>Surface and Coatings Technology</i> , 2000, 133-134, 15-22.	2.2	125
12	Fabrication and oxidation behavior of Cr ₂ AlC coating on Ti6242 alloy. <i>Surface and Coatings Technology</i> , 2010, 204, 2343-2352.	2.2	88
13	Structure and Properties of Titanium and Titanium Alloys. , 2005, , 1-36.		86
14	Oxidation resistant coatings in combination with thermal barrier coatings on β -TiAl alloys for high temperature applications. <i>Surface and Coatings Technology</i> , 2006, 201, 3911-3917.	2.2	72
15	Continuous Fiber Reinforced Titanium Matrix Composites: Fabrication, Properties, and Applications. <i>Advanced Engineering Materials</i> , 2003, 5, 399-410.	1.6	69
16	Recent progress in the coating protection of gamma titanium-aluminides. <i>Jom</i> , 2006, 58, 17-21.	0.9	67
17	Influence of bondcoat pre-treatment and surface topology on the lifetime of EB-PVD TBCs. <i>Surface and Coatings Technology</i> , 2003, 165, 217-223.	2.2	66
18	Intermetallic Ti-Al coatings for protection of titanium alloys: oxidation and mechanical behavior. <i>Surface and Coatings Technology</i> , 1997, 94-95, 34-40.	2.2	63

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19	Mechanical Properties of Additive Manufactured Ti-6Al-4V Using Wire and Powder Based Processes. IOP Conference Series: Materials Science and Engineering, 2011, 26, 012004.	0.3	63
20	Oxide scale formation on an MCrAlY coating in various H ₂ -H ₂ O atmospheres. Surface and Coatings Technology, 1996, 82, 133-144.	2.2	62
21	Influence of electron beam physical vapor deposited thermal barrier coating microstructure on thermal barrier coating system performance under cyclic oxidation conditions. Surface and Coatings Technology, 1999, 120-121, 68-76.	2.2	62
22	Demands, Potentials, and Economic Aspects of Thermal Spraying with Suspensions: A Critical Review. Journal of Thermal Spray Technology, 2015, 24, 1143-1152.	1.6	60
23	Sputtered intermetallic Ti-Al-X coatings: phase formation and oxidation behavior. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 1997, 239-240, 680-687.	2.6	58
24	Deposition of Ti-6Al-4V using laser and wire, part II: Hardness and dimensions of single beads. Surface and Coatings Technology, 2011, 206, 1130-1141.	2.2	58
25	Long-term oxidation of orthorhombic alloy Ti-22Al-25Nb in air between 650 and 800°C. Scripta Materialia, 1999, 41, 901-906.	2.6	53
26	Influence of long-term annealing on tensile properties and fracture of near- β titanium alloy Ti-6Al-2.75Sn-4Zr-0.4Mo-0.45Si. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 1996, 27, 1709-1717.	1.1	51
27	Shot peening on the high-strength wrought magnesium alloy AZ80—Effect of peening media. Journal of Materials Processing Technology, 2010, 210, 445-450.	3.1	51
28	Novel coating systems produced by the combined cathodic arc/unbalanced magnetron sputtering for environmental protection of titanium alloys. Surface and Coatings Technology, 2002, 155, 103-111.	2.2	50
29	Comparison of dimensional accuracy and tolerances of powder bed based and nozzle based additive manufacturing processes. Journal of Laser Applications, 2020, 32, .	0.8	50
30	Magnetron-sputtered Ti-Cr-Al coatings for oxidation protection of titanium alloys. Surface and Coatings Technology, 1998, 108-109, 30-35.	2.2	49
31	Mechanical Properties of Metal Oxide Aerogels. Chemistry of Materials, 2018, 30, 145-152.	3.2	49
32	Oxidation behaviour of gamma titanium aluminides with EB-PVD thermal barrier coatings exposed to air at 900°C. Surface and Coatings Technology, 2007, 202, 676-680.	2.2	47
33	Oxidation Behaviour of TBC Systems on β -TiAl Based Alloy Ti-45Al-8Nb. Oxidation of Metals, 2009, 71, 295-318.	1.0	47
34	Environmental protection of β -TiAl based alloy Ti-45Al-8Nb by CrAlYN thin films and thermal barrier coatings. Intermetallics, 2010, 18, 479-486.	1.8	47
35	Hot Corrosion of an EB-PVD Thermal-Barrier Coating System at 950°C. Oxidation of Metals, 2000, 54, 401-424.	1.0	46
36	Materials and design concepts for high performance compressor components. Aerospace Science and Technology, 2003, 7, 201-210.	2.5	45

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37	Improving the high-temperature oxidation resistance of a $\hat{1}^2\hat{a}\hat{e}\hat{1}^3$ TiAl alloy by a Cr ₂ AlC coating. Corrosion Science, 2010, 52, 3793-3802.	3.0	45
38	Oxidation resistance of $\hat{1}^3$ -TiAl based alloy Ti $\hat{a}\hat{e}\hat{1}^4$ 5Al $\hat{a}\hat{e}\hat{1}^8$ Nb coated with intermetallic Ti $\hat{a}\hat{e}\hat{1}^4$ Al $\hat{a}\hat{e}\hat{1}^4$ Cr $\hat{a}\hat{e}\hat{1}^4$ Y layers and EB-PVD zirconia topcoats at 950 \hat{A} °C in air. Surface and Coatings Technology, 2013, 222, 128-134.	2.2	40
39	Two-source jumping beam evaporation for advanced EB-PVD TBC systems. Surface and Coatings Technology, 2000, 133-134, 40-48.	2.2	39
40	Investigation of the Thermoelectric Power Factor of KOH-Treated PEDOT:PSS Dispersions for Printing Applications. Energy Harvesting and Systems, 2016, 3, 101-111.	1.7	38
41	Influence of microstructure on oxidation behaviour of near- $\hat{1}^{\pm}$ titanium alloys. Materials Science and Technology, 1996, 12, 213-218.	0.8	37
42	SiC-fibre reinforced copper as heat sink material for fusion applications. Journal of Nuclear Materials, 2004, 329-333, 804-808.	1.3	36
43	Enhanced manufacturing possibilities using multi-materials in laser metal deposition. Journal of Laser Applications, 2018, 30, .	0.8	36
44	Analysis of Melt Pool Characteristics and Process Parameters Using a Coaxial Monitoring System during Directed Energy Deposition in Additive Manufacturing. Materials, 2019, 12, 308.	1.3	36
45	Effect of roller burnishing on fatigue properties of the hot-rolled Mg $\hat{a}\hat{e}\hat{1}^2$ Gd $\hat{a}\hat{e}\hat{1}^3$ Y magnesium alloy. Materials Chemistry and Physics, 2010, 124, 835-840.	2.0	32
46	Thermal operating window for PEDOT:PSS films and its related thermoelectric properties. Synthetic Metals, 2017, 225, 49-54.	2.1	32
47	Influence of Processing on Microstructure and Performance of Electron Beam Physical Vapor Deposition (EB-PVD) Thermal Barrier Coatings. Journal of Engineering for Gas Turbines and Power, 2002, 124, 229-234.	0.5	30
48	Oxidation behaviour of Ti $\hat{a}\hat{e}\hat{1}^4$ Al $\hat{a}\hat{e}\hat{1}^4$ C films composed mainly of a Ti ₂ AlC phase. Corrosion Science, 2011, 53, 2948-2955.	3.0	30
49	High-performance laser cladding with combined energy sources. Journal of Laser Applications, 2015, 27, .	0.8	30
50	Solid particle erosion behavior of nanolaminated Cr ₂ AlC films. Wear, 2018, 402-403, 187-195.	1.5	30
51	Additive Manufacturing of Powdery Ni-Based Superalloys Mar-M-247 and CM 247 LC in Hybrid Laser Metal Deposition. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2018, 49, 3812-3830.	1.1	30
52	High strength and ductility of electron beam melted $\hat{1}^2$ stabilized $\hat{1}^3$ -TiAl alloy at 800 \hat{A} °C. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 756, 41-45.	2.6	30
53	Oxidation-Resistant Coatings for Application on High-Temperature Titanium Alloys in Aeroengines. Advanced Engineering Materials, 2000, 2, 265-269.	1.6	29
54	Characterization of Cr $\hat{a}\hat{e}\hat{1}^4$ Al $\hat{a}\hat{e}\hat{1}^4$ C and Cr $\hat{a}\hat{e}\hat{1}^4$ Al $\hat{a}\hat{e}\hat{1}^4$ Ca $\hat{a}\hat{e}\hat{1}^4$ Y films synthesized by High Power Impulse Magnetron Sputtering at a low deposition temperature. Thin Solid Films, 2015, 580, 6-11.	0.8	29

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55	Erosion behavior of EB-PVD 7YSZ coatings under corrosion/erosion regime: Effect of TBC microstructure and the CMAS chemistry. <i>Journal of the European Ceramic Society</i> , 2018, 38, 5101-5112.	2.8	29
56	Hybrid manufacturing of titanium Ti-6Al-4V combining laser metal deposition and cryogenic milling. <i>International Journal of Advanced Manufacturing Technology</i> , 2020, 107, 2995-3009.	1.5	29
57	Physical and Geometrical Properties of Additively Manufactured Pure Copper Samples Using a Green Laser Source. <i>Materials</i> , 2021, 14, 3642.	1.3	29
58	Development of a low-expansion bond coating for Ni-base superalloys. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1995, 190, 253-258.	2.6	28
59	Environmental Effects on Orthorhombic Alloy Ti-22Al-25Nb in Air Between 650 and 1000°C. <i>Oxidation of Metals</i> , 1999, 52, 475-503.	1.0	27
60	Î³-Titanium Aluminide Alloys: Alloy Design and Properties. , 2005, , 89-152.		27
61	Production, Processing and Application of Î³(TiAl)-Based Alloys. , 2005, , 351-392.		27
62	Ambient effects on the electrical conductivity of carbon nanotubes. <i>Carbon</i> , 2015, 95, 347-353.	5.4	27
63	A study on hot-working as alternative post-processing method for titanium aluminides built by laser powder bed fusion and electron beam melting. <i>Journal of Materials Processing Technology</i> , 2021, 291, 117024.	3.1	27
64	Synthesis and Characterization of Ti ₂ AlC and Ti ₂ AlN MAX Phase Coatings Manufactured in an Industrial-Size Coater. <i>Advanced Materials Research</i> , 0, 89-91, 208-213.	0.3	26
65	Thermocyclic Behavior of Differently Stabilized and structured EB-PVD thermal barrier coatings. <i>Materialwissenschaft Und Werkstofftechnik</i> , 1997, 28, 370-376.	0.5	25
66	Influence of shot peening on notched fatigue strength of the high-strength wrought magnesium alloy AZ80. <i>Journal of Alloys and Compounds</i> , 2010, 497, 380-385.	2.8	25
67	Process characteristics in high-precision laser metal deposition using wire and powder. <i>Journal of Laser Applications</i> , 2017, 29, .	0.8	25
68	Oxidation behaviour of TiAl-based intermetallic coatings on Î³-TiAl alloys. <i>International Journal of Materials Research</i> , 2010, 101, 637-647.	0.1	23
69	Protective coatings on orthorhombic Ti ₂ AlNb alloys. <i>Materials at High Temperatures</i> , 2005, 22, 437-447.	0.5	23
70	Influence of intermetallic Ti-Al coatings on the creep properties of TIMETAL 1100. <i>Scripta Materialia</i> , 1996, 35, 1423-1428.	2.6	22
71	Facile synthesis of potassium tetrathiooxalate “ The “monomer for the preparation of electron-conductive poly(nickel-ethylenetetrathiolate). <i>Tetrahedron</i> , 2017, 73, 2250-2254.	1.0	22
72	Intrinsic Heat Treatment Within Additive Manufacturing of Gamma Titanium Aluminide Space Hardware. <i>Jom</i> , 2019, 71, 1513-1519.	0.9	22

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73	Oxidation and Protection of Near-Alpha Titanium Alloys. Materials Science Forum, 1997, 251-254, 769-776.	0.3	21
74	Influence of intermetallic TiAl coatings on the fatigue properties of TIMETAL 1100. Scripta Materialia, 1997, 36, 1309-1314.	2.6	21
75	Title is missing!. Oxidation of Metals, 2000, 54, 255-276.	1.0	21
76	Electrodeposition of Co-Mn3O4 composite coatings. Surface and Coatings Technology, 2015, 280, 208-215.	2.2	21
77	Innovations in laser cladding and direct laser metal deposition. , 2015, , 181-192.		21
78	Nucleation and Growth of Oxide Constituents on NiCoCrAlY Bond Coats during the Different Stages of EB-PVD TBC Deposition and Upon Thermal Loading. Materials Science Forum, 2004, 461-464, 899-906.	0.3	20
79	Oxidation protective coatings for TiAl – recent trends. Materialwissenschaft Und Werkstofftechnik, 2007, 38, 667-673.	0.5	20
80	Reducing the erosive wear rate of Cr2AlC MAX phase ceramic by oxidative healing of local impact damage. Wear, 2016, 358-359, 1-6.	1.5	20
81	Investigation on the oxidation behaviour of gamma titanium aluminides coated with thermal barrier coatings. Materials and Corrosion - Werkstoffe Und Korrosion, 2008, 59, 539-546.	0.8	19
82	Performance of thermal barrier coatings on TiAl. Materials and Corrosion - Werkstoffe Und Korrosion, 2005, 56, 930-936.	0.8	18
83	Polyethenetetrathiolate or polytetrathiooxalate? Improved synthesis, a comparative analysis of a prominent thermoelectric polymer and implications to the charge transport mechanism. Polymer Chemistry, 2018, 9, 4543-4555.	1.9	18
84	Mechanical properties of the hot-rolled Mg-12Gd-3Y magnesium alloy. Materials Chemistry and Physics, 2009, 118, 453-458.	2.0	17
85	Optical absorption spectroscopy and properties of single walled carbon nanotubes at high temperature. Synthetic Metals, 2014, 197, 182-187.	2.1	17
86	High-Temperature Aging of Eb-Pvd Thermal Barrier Coatings. Ceramic Engineering and Science Proceedings, 0, , 347-356.	0.1	17
87	Transformation and oxidation of a sputtered low-expansion Ni-Cr-Al-Ti-Si bond coating for thermal barrier systems. Surface and Coatings Technology, 1997, 94-95, 155-160.	2.2	15
88	Oxidation and fatigue behaviour of TiAl coated with HIPIMS CrAlYN/CrN nanoscale multilayer coatings and EB-PVD thermal barrier coatings. International Journal of Materials Research, 2010, 101, 648-656.	0.1	15
89	Microstructural, mechanical, and thermo-physical characterization of hypereutectic AlSi40 fabricated by selective laser melting. Journal of Laser Applications, 2019, 31, .	0.8	15
90	Fast Laser Cutting of Thin Metal. Procedia Manufacturing, 2019, 29, 369-374.	1.9	15

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91	Comprehensive study on the formation of grain boundary serrations in additively manufactured Haynes 230 alloy. <i>Materials Characterization</i> , 2020, 160, 110092.	1.9	15
92	Potential and challenges of additive manufacturing for topology optimized spacecraft structures. <i>Journal of Laser Applications</i> , 2020, 32, .	0.8	15
93	Compositional Effects on Aluminide Oxidation Performance: Objectives for Improved Bond Coats. , 2000, , .		15
94	Influence of thermocycle boroaluminising on strength of steel C30. <i>Surface Engineering</i> , 2014, 30, 129-133.	1.1	14
95	The role of open-volume defects in the annihilation of antisites in a B2-ordered alloy. <i>Acta Materialia</i> , 2019, 176, 167-176.	3.8	14
96	Particle Ejection by Jetting and Related Effects in Impact Welding Processes. <i>Metals</i> , 2020, 10, 1108.	1.0	14
97	Magneto-structural correlations in a systematically disordered B2 lattice. <i>New Journal of Physics</i> , 2020, 22, 073004.	1.2	14
98	Characterization of the high-temperature behavior of PBF-EB/M manufactured $\hat{\text{T}}$ titanium aluminides. <i>Progress in Additive Manufacturing</i> , 2022, 7, 471-480.	2.5	14
99	Phase stability, oxidation, and interdiffusion of a novel Ni?Cr?Al?Ti?Si bond-coating alloy between 900 and 1100i;½C. <i>Oxidation of Metals</i> , 1995, 43, 329-352.	1.0	13
100	Oxidation of Orthorhombic Titanium Aluminide Ti-22Al-25Nb in Air between 650 and 1000 Â°C. <i>Journal of Materials Engineering and Performance</i> , 2001, 10, 225-230.	1.2	13
101	Interaction between cyclic loading and residual stresses in titanium matrix composites. <i>Journal of Materials Science</i> , 2004, 39, 501-509.	1.7	13
102	Thermally grown oxide scales on $\hat{\text{T}}$ -TiAl coated with thermal protection systems. <i>Materials at High Temperatures</i> , 2009, 26, 305-316.	0.5	13
103	Evaluation of 3D-printed parts by means of high-performance computer tomography. <i>Journal of Laser Applications</i> , 2018, 30, 032307.	0.8	13
104	Alloy Design and Microstructure Evolution in the AlxCoCrFeNi Alloy System Synthesized by Laser Metal Deposition. <i>Frontiers in Materials</i> , 2020, 7, .	1.2	13
105	Interface Formation during Collision Welding of Aluminum. <i>Metals</i> , 2020, 10, 1202.	1.0	13
106	Additive Manufacturing of Titanium with Different Surface Structures for Adhesive Bonding and Thermal Direct Joining with Fiber-Reinforced Polyether-Ether-Ketone (PEEK) for Lightweight Design Applications. <i>Metals</i> , 2021, 11, 265.	1.0	13
107	Investigation of an as-sprayed NiCoCrAlY overlay coating.. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 369, 144-150.	2.6	12
108	Surface Functionalization by High-precision Laser Cladding. <i>Laser Technik Journal</i> , 2013, 10, 29-31.	0.4	12

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109	Oxidation and Protection of Titanium Alloys and Titanium Aluminides. , 2005, , 187-230.		11
110	Metalâ€“Ceramic Layered Materials and Composites Manufactured Using Powder Techniques. Advanced Engineering Materials, 2014, 16, 1293-1302.	1.6	11
111	Laser Additive Manufacturing with Crack-sensitive Materials. Laser Technik Journal, 2015, 12, 28-30.	0.4	11
112	Thermodynamic calculation and experimental analysis of critical phase transformations in HVOF-sprayed NiCrAlY-coating alloys. Surface and Coatings Technology, 2019, 357, 924-938.	2.2	11
113	Titan und Titanlegierungen: Struktur, GefÃ¼ge, Eigenschaften. , 0, , 1-37.		11
114	Analytical electron microscopy of the mixed zone in NiCoCrAlY-based EB-PVD thermal barrier coatings: as-coated condition versus late stages of TBC lifetime. Materials at High Temperatures, 2005, 22, 393-401.	0.5	11
115	Oxidation Behaviour of Ti<SUB>2</SUB><SUB>2</SUB> AlN Films Composed Mainly of Nanolaminated MAX Phase. Journal of Nanoscience and Nanotechnology, 2011, 11, 8959-8966.	0.9	10
116	Innovations in laser cladding and direct metal deposition. Proceedings of SPIE, 2012, , .	0.8	10
117	Magnetic properties of bulk and thin film Crâ€“Alâ€“C compounds. Surface Engineering, 2016, 32, 172-177.	1.1	10
118	Added value by hybrid additive manufacturing and advanced manufacturing approaches. Journal of Laser Applications, 2018, 30, .	0.8	10
119	Material Characterization of AISI 316L Flexure Pivot Bearings Fabricated by Additive Manufacturing. Materials, 2019, 12, 2426.	1.3	10
120	Defect-based characterization of the fatigue behavior of additively manufactured titanium aluminides. International Journal of Fatigue, 2022, 163, 107047.	2.8	10
121	Lifetimeâ€“determining spalling mechanisms of NiCoCrAlRE / EBâ€“PVD zirconia TBC systems. Materialwissenschaft Und Werkstofftechnik, 2007, 38, 734-746.	0.5	9
122	Compositional depth profiling of diamond-like carbon layers by glow discharge optical emission spectroscopy. Journal of Analytical Atomic Spectrometry, 2016, 31, 2207-2212.	1.6	9
123	Coaxial Laser Wire Deposition. Journal of Physics: Conference Series, 2018, 1109, 012026.	0.3	9
124	Novel local shielding approach for the laser welding based additive manufacturing of large structural space components from titanium. Journal of Laser Applications, 2020, 32, 022075.	0.8	9
125	Laser fusion cutting: evaluation of gas boundary layer flow state, momentum and heat transfer. Materials Research Express, 2021, 8, 036513.	0.8	9
126	Analytical electron microscopy of the mixed zone in NiCoCrAlY-based EB-PVD thermal barrier coatings: as-coated condition versus late stages of TBC lifetime. Materials at High Temperatures, 2005, 22, 393-401.	0.5	8

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127	Fabrication of Titanium Alloys. , 2005, , 245-261.		8
128	Laser-based manufacturing of components using materials with high cracking susceptibility. Journal of Laser Applications, 2016, 28, 022305.	0.8	8
129	Hard Turning of Hot Work and Cold Work Steels with HiPIMS and DCMS TiAlN Coated Carbide Inserts. Procedia CIRP, 2016, 46, 591-594.	1.0	8
130	Method for high accuracy measurements of energy coupling and melting efficiency under welding conditions. Journal of Laser Applications, 2018, 30, .	0.8	8
131	Efficient separation of battery materials using remote laser cuttingâ€“high output performance, contour flexibility, and cutting edge quality. Journal of Laser Applications, 2019, 31, .	0.8	8
132	Investigation of CMAS Resistance of Sacrificial Suspension Sprayed Alumina Topcoats on EB-PVD 7YSZ Layers. Journal of Thermal Spray Technology, 2020, 29, 90-104.	1.6	8
133	In situ observation with x-ray for tentative exploration of laser beam welding processes for aluminum-based alloys. Journal of Laser Applications, 2021, 33, 012026.	0.8	8
134	Electron Beam Powder Bed Fusion of $\hat{\text{I}}^3$ -Titanium Aluminide: Effect of Processing Parameters on Part Density, Surface Characteristics, and Aluminum Content. Metals, 2021, 11, 1093.	1.0	8
135	TEM Investigation on the Adhesion of YPSZ EB-PVD TBCs. Materials Science Forum, 1997, 251-254, 965-972.	0.3	7
136	Grenzschichtproblematik und Haftung von EB-PVD-WÃrmedÃmmschichtsystemen. Materialwissenschaft Und Werkstofftechnik, 1997, 28, 384-390.	0.5	7
137	Oxidation and lifetime of PYSZ and CeSZ coated Ni-base substrates with MCrAlY bond layers. Materials at High Temperatures, 2003, 20, 475-480.	0.5	7
138	Ti-Al-Cr Based Coatings for High Temperature Oxidation Protection of $\hat{\text{I}}^3$ -TiAl. Materials Science Forum, 2010, 638-642, 1306-1311.	0.3	7
139	Oxidation behaviour of TiAlYN/CrN and CrAlYN/CrN nanoscale multilayer coatings with Al ₂ O ₃ topcoat deposited on $\hat{\text{I}}^3$ -TiAl alloys. Materials at High Temperatures, 2011, 28, 324-335.	0.5	7
140	Mechanical Properties of Sharkâ€™s Skin Like Structured Surfaces for Highâ€™Temperature Applications. Advanced Engineering Materials, 2016, 18, 688-702.	1.6	7
141	Erosion resistance of CMAS infiltrated sacrificial suspension sprayed alumina top layer on EB-PVD 7YSZ coatings. Wear, 2019, 438-439, 203064.	1.5	7
142	Investigation on the formation of grain boundary serrations in additively manufactured superalloy Haynes 230. Journal of Laser Applications, 2020, 32, .	0.8	7
143	Improving and monitoring the magnetic pulse welding process between dissimilar metals. Welding in the World, Le Soudage Dans Le Monde, 2021, 65, 199-209.	1.3	7
144	Hot Corrosion of Nickel-Base Alloys by Alkali-Containing Sulfate Deposits. Materials Science Forum, 2001, 369-372, 571-578.	0.3	6

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145	Improvement of the High-Temperature Oxidation Resistance of TiAl by Selectively Pre-treated Si-based Coating. <i>Advanced Engineering Materials</i> , 2008, 10, 675-677.	1.6	6
146	Oxidation behaviour of a Ti_2AlN MAX-phase coating. <i>IOP Conference Series: Materials Science and Engineering</i> , 2011, 18, 082025.	0.3	6
147	Highly n-doped Surfaces on n-type Silicon Wafers by Laser-chemical Processes. <i>Energy Procedia</i> , 2014, 55, 247-254.	1.8	6
148	Advanced manufacturing approach via the combination of selective laser melting and laser metal deposition. <i>Journal of Laser Applications</i> , 2019, 31, 022317.	0.8	6
149	Laser Multi-Pass Narrow-Gap Welding – A Promising Technology for Joining Thick-Walled Components of Future Power Plants. <i>MATEC Web of Conferences</i> , 2019, 269, 02011.	0.1	6
150	Integration of pure copper to optimize heat dissipation in injection mould inserts using laser metal deposition. <i>Journal of Laser Applications</i> , 2021, 33, 012029.	0.8	6
151	Additive Manufacturing of Ti-NiAl by Means of Laser Metal Deposition of Pre-Alloyed and Elemental Powders. <i>Materials</i> , 2021, 14, 2246.	1.3	6
152	Extension of the process limits in laser beam welding of thick-walled components using the Laser Multi-Pass Narrow-Gap welding (Laser-MPNC) on the example of the nickel-based material Alloy 617 occ. <i>Welding in the World, Le Soudage Dans Le Monde</i> , 2021, 65, 1359-1371.	1.3	6
153	Protective coatings on orthorhombic Ti_2AlNb alloys. <i>Materials at High Temperatures</i> , 2005, 22, 437-447.	0.5	5
154	Non-Aerospace Applications of Titanium and Titanium Alloys. , 2005, , 393-422.		5
155	Oxidation-resistant Ti-90Al coatings with lotus effect surface morphology deposited on a TiAl alloy. <i>Scripta Materialia</i> , 2009, 61, 1156-1159.	2.6	5
156	Additive manufacturing of an AlSi40 mirror coated with electroless nickel for cryogenic space applications. , 2019, , .		5
157	Why do EB-PVD NiCoCrAlY Coatings Oxidize Faster than their LPPS Counterparts?. <i>Materials Science Forum</i> , 2001, 369-372, 703-710.	0.3	4
158	Surface Effects on the Mechanical Properties of Gamma Titanium Aluminides. <i>Materials Science Forum</i> , 0, 706-709, 1071-1076.	0.3	4
159	Strain Monitoring During Laser Metal Deposition of Inconel 718 by Neutron Diffraction. <i>Minerals, Metals and Materials Series</i> , 2020, , 1033-1045.	0.3	4
160	Titanlegierungen in der Luft- und Raumfahrt. , 0, , 351-368.		4
161	Contemporary Materials Issues for Advanced EB-PVD Thermal Barrier Coating Systems. <i>International Journal of Materials Research</i> , 2022, 92, 762-772.	0.1	4
162	Optimisation of the Fatigue Resistance of Metal Matrix Composites. <i>Advanced Engineering Materials</i> , 2002, 4, 497-500.	1.6	3

#	ARTICLE	IF	CITATIONS
163	Environmental and Thermal Protection of $\hat{1}^3$ -TiAl Alloys. Materials Science Forum, 2004, 461-464, 223-230.	0.3	3
164	Orthorhombic Titanium Aluminides: Intermetallics with Improved Damage Tolerance. , 2005, , 59-88.		3
165	Short-time Oxidation of Cast $\hat{1}^3/\hat{1}^3\hat{a}^2$ -Ni \hat{a}^2 -Cr \hat{a}^2 -Al \hat{a}^2 -Ta \hat{a}^2 -Re Alloys at 1,000 \hat{A}° C. Oxidation of Metals, 2012, 78,163-82.		3
166	The oxidation behaviour of aluminium-rich coatings on the TiAl alloy TNM-B1. Materials at High Temperatures, 2018, 35, 204-216.	0.5	3
167	Efficient air flow control for remote laser beam welding. Journal of Laser Applications, 2018, 30, 032413.	0.8	3
168	Laser-multi-pass-narrow-gap-welding of nickel superalloy \hat{a}^2 Alloy 617OCC. Journal of Laser Applications, 2019, 31, .	0.8	3
169	Laser Treatment as Sintering Process for Dispenser Printed Bismuth Telluride Based Paste. Materials, 2019, 12, 3453.	1.3	3
170	Fast Beam Oscillations Improve Laser Cutting of Thick Materials. PhotonicsViews, 2020, 17, 26-31.	0.1	3
171	Improved corrosion behavior of a novel Fe85Cr4Mo8V2C1 tool steel processed by laser powder bed fusion. Journal of Alloys and Compounds, 2021, 867, 158887.	2.8	3
172	Thermocyclic Boroaluminizing of Low Carbon Steels in Pastes. Materials Performance and Characterization, 2017, 6, 531-545.	0.2	3
173	HIPIMS COATED CARBIDES WITH HIGH ADHESIVE STRENGTH FOR HARD MACHINING. MM Science Journal, 2014, 2014, 516-520.	0.2	3
174	Oxidation and lifetime of PYSZ and CeSZ coated Ni-base substrates with MCrAlY bond layers. Materials at High Temperatures, 2003, 20, 475-479.	0.5	3
175	In Situ CT Tensile Testing of an Additively Manufactured and Heat-Treated Metastable \hat{A}° -Titanium Alloy (Ti-5Al-5Mo-5V-3Cr). Applied Sciences (Switzerland), 2021, 11, 9875.	1.3	3
176	R&D Status and Needs for Improved EB-PVD Thermal Barrier Coating Performance. Materials Research Society Symposia Proceedings, 2000, 645, 1011.	0.1	2
177	Intermetallic Ti-Al-Cr Based Layers and Zirconia Topcoats Deposited on Gamma Titanium Aluminides for Environmental Protection. Advanced Materials Research, 0, 278, 497-502.	0.3	2
178	Fabrication of Riblet Structures on a Ni \hat{a}^2 -based Superalloy (PWA1483) for Potential Drag Reduction in High Temperature Applications Based on Laser Optimization. Advanced Engineering Materials, 2015, 17, 1008-1016.	1.6	2
179	Oxidation and Decomposition of Ti \hat{a}^2 -Al \hat{a}^2 -AlN MAX Phase Coating Deposited on Nickel-Based Super Alloy IN718. Materials Science Forum, 0, 825-826, 628-635.	0.3	2
180	DFG Priority Program SPP 1299 - Adaptive Surfaces for High-Temperature Applications - the Skin Concept. Advanced Engineering Materials, 2016, 18, 687-687.	1.6	2

#	ARTICLE	IF	CITATIONS
181	Functional integration approaches via laser powder bed processing. Journal of Laser Applications, 2019, 31, 022319.	0.8	2
182	A Printable Paste Based on a Stable n-Type Poly[Ni-tto] Semiconducting Polymer. Coatings, 2019, 9, 764.	1.2	2
183	Image-based algorithm for nozzle adhesion detection in powder-fed directed-energy deposition. Journal of Laser Applications, 2020, 32, 022021.	0.8	2
184	Development of a System for Additive Manufacturing of Ceramic Matrix Composite Structures Using Laser Technology. Materials, 2021, 14, 3248.	1.3	2
185	Energy Turnaround: Printing of Thermoelectric Generators. IFIP Advances in Information and Communication Technology, 2013, , 181-184.	0.5	2
186	Die Leichtbauwerkstoffe für den Fahrzeugbau. , 2017, , 205-449.		2
187	A Study on the accuracy of Thermography-based Temperature measurement in Powder-fed directed energy deposition. Procedia CIRP, 2020, 95, 35-41.	1.0	2
188	Laser processing: solutions for industry. PhotonicsViews, 2021, 18, 32-36.	0.1	2
189	Influence of Processing on Microstructure and Performance of EB-PVD Thermal Barrier Coatings. , 2000, , .		1
190	A Novel Canning Technology for Forging of Gamma-TiAl Alloys. Materials Science Forum, 2007, 546-549, 1421-1426.	0.3	1
191	Influence of different annealing processes under various atmospheres on the oxidation behaviour of β -TiAl. Materials at High Temperatures, 2009, 26, 91-97.	0.5	1
192	Numerical and Experimental Sensitivity Analysis for the Determination of Casting Parameter "Microstructure" Property Relations and Mechanical Properties of IN738LC in Investment Casting. Advanced Engineering Materials, 2014, 16, 1217-1225.	1.6	1
193	Modular Coating for Flexible Gas Turbine Operation. Journal of Thermal Spray Technology, 2016, 25, 273-281.	1.6	1
194	Hybrid laser manufacturing. , 2017, , 79-97.		1
195	Investigations on clean and efficient remote cutting and ablating processes. Procedia CIRP, 2018, 74, 413-416.	1.0	1
196	Surface modification of additively manufactured gamma titanium aluminide hardware. Journal of Laser Applications, 2019, 31, 022517.	0.8	1
197	Wavelength dependent laser material processing of ceramic materials. Journal of Laser Applications, 2019, 31, .	0.8	1
198	Comparative analysis of the potential of state-of-the-art lasers and new prototypic high-power beam sources for cutting nonmetals. Journal of Laser Applications, 2020, 32, 022040.	0.8	1

#	ARTICLE	IF	CITATIONS
199	Multimaterial Additive Manufacturing of Graded Laves Phase Reinforced NiAlTi Structures by Means of Laser Metal Deposition. <i>Advanced Engineering Materials</i> , 2022, 24, 2100993.	1.6	1
200	Laser-based fabrication with Ti- and Ni-base superalloys. , 2013, , .		1
201	Hybrid Additive Manufacturing of Gamma Titanium Aluminide Space Hardware. , 2018, , .		1
202	Novel Approach for Suppressing of Hot Cracking Via Magneto-fluid Dynamic Modification of the Laser-Induced Marangoni Convection. <i>Minerals, Metals and Materials Series</i> , 2020, , 972-981.	0.3	1
203	Additive manufacturing of a metallic optical benchâ€”process development, material qualification and demonstration. <i>CEAS Space Journal</i> , 0, , 1.	1.1	1
204	NDE for Additive Manufacturing. , 2022, , 665-696.		1
205	Erosion behavior of CMAS/VA infiltrated EB-PVD Gd ₂ Zr ₂ O ₇ TBCs: Special emphasis on the effect of mechanical properties of the reaction products. <i>Wear</i> , 2022, 506-507, 204450.	1.5	1
206	Intermetallische Oxidationsschutzschichten f¼r Titanlegierungen. <i>Materialwissenschaft Und Werkstofftechnik</i> , 1997, 28, 363-369.	0.5	0
207	Catalytic Converter for Next Generation Turbine Engines. <i>Key Engineering Materials</i> , 2004, 264-268, 521-524.	0.4	0
208	Plasmachemisches Ätzen und Beschichten bei Atmosphärendruck. <i>Vakuum in Forschung Und Praxis</i> , 2011, 23, 12-16.	0.0	0
209	Calculating the stress of multi-track formations in induction-assisted laser cladding. , 2012, , .		0
210	Laser-based generation of precise functional structures and components. , 2013, , .		0
211	Special Section â€œLight Materials â€ Science and Technologyâ€ Advanced Engineering Materials, 2019, 21, 1900232.	1.6	0
212	Performance of thermal barrier coatings on Î³-TiAl. , 2008, , 249-263.		0
213	Phenomena in multi-material fabrication using laser metal deposition. , 2019, , .		0