Kim Vanmeensel

List of Publications by Year
in descending order

120 papers	4,633 citations	81743 39 h-index	114278 63 g-index
126 all docs	126 docs citations	126 times ranked	3919 citing authors

#	Article	IF	Citations
1	Effects of laser scanning speed and building direction on the microstructure and mechanical properties of selective laser melted Inconel 718 superalloy. Materials Today Communications, 2022, 30, 103095.	0.9	4
2	Development of a high strength Zr/Sc/Hf-modified Al-Mn-Mg alloy using Laser Powder Bed Fusion: Design of a heterogeneous microstructure incorporating synergistic multiple strengthening mechanisms. Additive Manufacturing, 2022, 57, 102967.	1.7	7
3	Laser powder bed fusion of high strength aluminum. Material Design and Processing Communications, 2021, 3, e161.	0.5	4
4	Investigation of Solidification and Precipitation Behavior of Si-Modified 7075 Aluminum Alloy Fabricated by Laser-Based Powder Bed Fusion. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2021, 52, 194-210.	1.1	28
5	Thermo-mechanical modelling of stress relief heat treatments after laser-based powder bed fusion. Additive Manufacturing, 2021, 38, 101818.	1.7	11
6	Fatigue crack growth parameters of Laser Powder Bed Fusion produced Ti-6Al-4V. International Journal of Fatigue, 2021, 145, 106100.	2.8	13
7	A Micro-Computed Tomography Comparison of the Porosity in Additively Fabricated CuCr1 Alloy Parts Using Virgin and Surface-Modified Powders. Materials, 2021, 14, 1995.	1.3	7
8	Crack mitigation in Laser Powder Bed Fusion processed Hastelloy X using a combined numerical-experimental approach. Journal of Alloys and Compounds, 2021, 864, 158803.	2.8	21
9	Laser-based powder bed fusion additive manufacturing of pure copper. Additive Manufacturing, 2021, 42, 101990.	1.7	35
10	Laser powder bed fusion processability of Ti-6Al-4V powder decorated by B4C particles. Materials Letters, 2021, 296, 129923.	1.3	7
11	Exploiting the rapid solidification potential of laser powder bed fusion in high strength and crack-free Al-Cu-Mg-Mn-Zr alloys. Additive Manufacturing, 2021, 47, 102210.	1.7	11
12	Mechanical and electrical properties of selective laserâ€melted parts produced from surfaceâ€oxidized copper powder. Material Design and Processing Communications, 2020, 2, e94.	0.5	24
13	Effect of temperature on the microstructure and tensile properties of micro-crack free hastelloy X produced by selective laser melting. Additive Manufacturing, 2020, 31, 100995.	1.7	21
14	Modification of Electrical and Mechanical Properties of Selective Laserâ€Melted CuCr0.3 Alloy Using Carbon Nanoparticles. Advanced Engineering Materials, 2020, 22, 1900946.	1.6	21
15	Highly conductive and strong CuSn0.3 alloy processed via laser powder bed fusion starting from a tin-coated copper powder. Additive Manufacturing, 2020, 36, 101607.	1.7	8
16	Heat treatment possibilities for an in situ Î²Ti-TiC composite made by laser powder bed fusion. Additive Manufacturing, 2020, 36, 101577.	1.7	5
17	Near-threshold fatigue crack growth rates of laser powder bed fusion produced Ti-6Al-4V. Acta Materialia, 2020, 197, 269-282.	3.8	36
18	Determination of the structure and orientation of nanometer-sized precipitates in matrix materials via transmission diffraction signals emitted by bulk samples in the Scanning Electron Microscope. Materials Characterization, 2020, 166, 110454.	1.9	8

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19	Surface Modified Copper Alloy Powder for Reliable Laser-based Additive Manufacturing. Additive Manufacturing, 2020, 35, 101418.	1.7	23
20	In situ transformations during SLM of an ultra-strong TiC reinforced Ti composite. Scientific Reports, 2020, 10, 10523.	1.6	18
21	Increasing the productivity of laser powder bed fusion: Influence of the hull-bulk strategy on part quality, microstructure and mechanical performance of Ti-6Al-4V. Additive Manufacturing, 2020, 33, 101129.	1.7	18
22	Influence of Carbon Nanoparticle Addition (and Impurities) on Selective Laser Melting of Pure Copper. Materials, 2019, 12, 2469.	1.3	58
23	Microstructure and mechanical properties of Hastelloy X produced by HP-SLM (high power selective) Tj ETQq1 1 0.784314 rgBT /Overlo	3.3	139
24	Microscopic investigation of as built and hot isostatic pressed Hastelloy X processed by Selective Laser Melting. Materials Characterization, 2019, 153, 366-371.	1.9	55
25	Selective Laser Melting process optimization of Tiâ€"Moâ€"TiC metal matrix composites. CIRP Annals - Manufacturing Technology, 2019, 68, 221-224.	1.7	24
26	Effect of processing parameters on microstructure and properties of tungsten heavy alloys fabricated by SLM. International Journal of Refractory Metals and Hard Materials, 2019, 82, 23-30.	1.7	49
27	Effect of post-treatments on the fatigue behaviour of 316L stainless steel manufactured by laser powder bed fusion. International Journal of Fatigue, 2019, 123, 31-39.	2.8	125
28	Slow crack growth resistance of electrically conductive zirconia-based composites with non-oxide reinforcements. Journal of the European Ceramic Society, 2019, 39, 641-646.	2.8	5
29	Selective laser melting of tungsten and tungsten alloys. International Journal of Refractory Metals and Hard Materials, 2018, 72, 27-32.	1.7	160
30	Wetting and solidification of silver alloys in the presence of tungsten carbide. Acta Materialia, 2018, 144, 459-469.	3.8	17
31	In situ alloying and reinforcing of Al6061 during selective laser melting. Procedia CIRP, 2018, 74, 39-43.	1.0	17
32	Enhancing efficiency of field assisted sintering by advanced thermal insulation. Journal of Materials Processing Technology, 2018, 262, 326-339.	3.1	19
33	Laser powder bed fusion of Hastelloy X: Effects of hot isostatic pressing and the hot cracking mechanism. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2018, 732, 228-239.	2.6	171
34	Microstructure evolution of 316L produced by HP-SLM (high power selective laser melting). Additive Manufacturing, 2018, 23, 402-410.	1.7	109
35	Residual compressive surface stress increases the bending strength of dental zirconia. Dental Materials, 2017, 33, e147-e154.	1.6	44
36	Novel processing of Ag-WC electrical contact materials using spark plasma sintering. Materials and Design, 2017, 121, 262-271.	3.3	26

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37	Study of the Effect of Spinel Composition on Metallic Copper Losses in Slags. Journal of Sustainable Metallurgy, 2017, 3, 416-427.	1.1	15
38	Novel Composite Powders with Uniform TiB2 Nano-Particle Distribution for 3D Printing. Applied Sciences (Switzerland), 2017, 7, 250.	1.3	46
39	Corrosion Testing of a Heat Treated 316 L Functional Part Produced by Selective Laser Melting. Materials Sciences and Applications, 2017, 08, 223-233.	0.3	5
40	(Nb_{<i>x</i>}, Zr_{1â€“<i>x</i>})₄AlC₃ MAX Phase Solid Solutions: Processing, Mechanical Properties, and Density Functional Theory Calculations. Inorganic Chemistry, 2016, 55, 5445-5452.	1.9	54
41	Aiming for Improved Lifetime of Die and Mold Components through an Integrated Laser Hardening Operation, Combining Machining and a Selective Heat Treatment in One Setup. Procedia CIRP, 2016, 46, 541-544.	1.0	10
42	Solid state recycling of pure Mg and AZ31 Mg machining chips via spark plasma sintering. Materials and Design, 2016, 109, 520-529.	3.3	30
43	Effect of cation dopant radius on the hydrothermal stability of tetragonal zirconia: Grain boundary segregation and oxygen vacancy annihilation. Acta Materialia, 2016, 106, 48-58.	3.8	85
44	Effect of Ni addition on the contact resistance of Ag-WC electrical contacts. Journal of Alloys and Compounds, 2016, 670, 188-197.	2.8	19
45	A new method to texture dense M+1AX ceramics by spark plasma deformation. Scripta Materialia, 2016, 111, 98-101.	2.6	46
46	Structural and Chemical Analysis of the Zirconiaâ€“Veneering Ceramic Interface. Journal of Dental Research, 2016, 95, 102-109.	2.5	24
47	Influence of Light Irradiation Through Zirconia on the Degree of Conversion of Composite Cements. Journal of Adhesive Dentistry, 2016, 18, 161-71.	0.3	17
48	Lifetime estimation of zirconia ceramics by linear ageing kinetics. Acta Materialia, 2015, 92, 290-298.	3.8	45
49	Environmental assessment of solid state recycling routes for aluminium alloys: Can solid state processes significantly reduce the environmental impact of aluminium recycling?. CIRP Annals - Manufacturing Technology, 2015, 64, 37-40.	1.7	90
50	Wetting behaviour of Cu based alloys on spinel substrates in pyrometallurgical context. Materials Science and Technology, 2015, 31, 1925-1933.	0.8	18
51	Highly-translucent, strong and aging-resistant 3Y-TZP ceramics for dental restoration by grain boundary segregation. Acta Biomaterialia, 2015, 16, 215-222.	4.1	117
52	Rapid synthesis and elastic properties of fine-grained Ti2SnC produced by spark plasma sintering. Journal of Alloys and Compounds, 2015, 631, 72-76.	2.8	20
53	Sintering in a graphite powder bed of alumina-toughened zirconia/carbon nanotube composites: a novel way to delay hydrothermal degradation. Ceramics International, 2015, 41, 4569-4580.	2.3	10
54	Aging resistance of surface-treated dental zirconia. Dental Materials, 2015, 31, 182-194.	1.6	119

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55	Effect of WC particle size and Ag volume fraction on electrical contact resistance and thermal conductivity of Agâ€“WC contact materials. Materials and Design, 2015, 85, 412-422.	3.3	58
56	The Use of Spark Plasma Sintering to Fabricate a Two-phase Material from Blended Aluminium Alloy Scrap and Gas Atomized Powder. Procedia CIRP, 2015, 26, 455-460.	1.0	12
57	Surface integrity of rotary ultrasonic machined ZrO2â€“TiN and Al2O3â€“TiCâ€“SiC ceramics. Journal of the European Ceramic Society, 2015, 35, 3927-3941.	2.8	14
58	Microstructure and mechanical properties of NbC-matrix hardmetals with secondary carbide addition and different metal binders. International Journal of Refractory Metals and Hard Materials, 2015, 48, 418-426.	1.7	49
59	Critical influence of alumina content on the low temperature degradation of 2â€“3mol% yttria-stabilized TZP for dental restorations. Journal of the European Ceramic Society, 2015, 35, 741-750.	2.8	84
60	Bonding Effectiveness to Differently Sandblasted Dental Zirconia. Journal of Adhesive Dentistry, 2015, 17, 235-42.	0.3	25
61	Spark Plasma Sintering As a Solid-State Recycling Technique: The Case of Aluminum Alloy Scrap Consolidation. Materials, 2014, 7, 5664-5687.	1.3	49
62	Powder synthesis and densification of ultrafine B4C-ZrB2 composite by pulsed electrical current sintering. Journal of the European Ceramic Society, 2014, 34, 1923-1933.	2.8	28
63	3Y-TZP ceramics with improved hydrothermal degradation resistance and fracture toughness. Journal of the European Ceramic Society, 2014, 34, 2453-2463.	2.8	98
64	Influence of ZrH2 addition on pulsed electric current sintered ZrB2â€“SiC composites. Scripta Materialia, 2014, 77, 41-44.	2.6	5
65	Influence of sintering conditions on low-temperature degradation of dental zirconia. Dental Materials, 2014, 30, 669-678.	1.6	123
66	Texturing of 3Y-TZP zirconia by electrophoretic deposition in a high magnetic field of 17.4T. Journal of the European Ceramic Society, 2014, 34, 3879-3885.	2.8	4
67	Electrical Discharge Machining of (NbxZr1-x)B2-SiC Composites. Procedia CIRP, 2013, 6, 186-191.	1.0	6
68	Diamond dispersed Si3N4 composites obtained by pulsed electric current sintering. Journal of the European Ceramic Society, 2013, 33, 1237-1247.	2.8	5
69	Spark Plasma Sintering of Superhard <scp><scp>B</scp></scp>₄<scp><scp>C</scp></scp>â€“<scp><scp>ZrB</scp></scp><sub>2</sub Ceramics by Carbide Boronizing. Journal of the American Ceramic Society, 2013, 96, 1055-1059.	1.9	49
70	Experimental study and simulation of plastic deformation of zirconia-based ceramics in a pulsed electric current apparatus. Acta Materialia, 2013, 61, 2376-2389.	3.8	14
71	Preparation of microflake ink for low cost printing of CIS-Se absorber layers. , 2012, , .		0
72	Hard and tough carbon nanotube-reinforced zirconia-toughened alumina composites prepared by spark plasma sintering. Carbon, 2012, 50, 706-717.	5.4	63

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73	Microstructural development and mechanical properties of iron based cermets processed by pressureless and spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 538, 28-34.	2.6	25
74	Microstructure and mechanical properties of pulsed electric current sintered B4Câ€“TiB2 composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 1302-1309.	2.6	114
75	Sintering, thermal stability and mechanical properties of ZrO2-WC composites obtained by pulsed electric current sintering. Frontiers of Materials Science, 2011, 5, 50-56.	1.1	7
76	In situ synthesis and densification of submicrometer-grained B4Câ€“TiB2 composites by pulsed electric current sintering. Journal of the European Ceramic Society, 2011, 31, 637-644.	2.8	75
77	Electrical discharge machining of B4Câ€“TiB2 composites. Journal of the European Ceramic Society, 2011, 31, 2023-2030.	2.8	32
78	Apatite type lanthanum silicate and composite anode half cells. Solid State Ionics, 2011, 192, 419-423.	1.3	5
79	Manipulating microstructure and mechanical properties of CuO doped 3Y-TZP nano-ceramics using spark-plasma sintering. Journal of the European Ceramic Society, 2010, 30, 899-904.	2.8	22
80	Synthesis of nano-crystalline apatite type electrolyte powders for solid oxide fuel cells. Journal of the European Ceramic Society, 2010, 30, 1699-1706.	2.8	20
81	Pulsed electric current sintering and characterization of ultrafine Al2O3â€“WC composites. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 584-589.	2.6	32
82	Synthesis, microstructure and mechanical properties of Yttria Stabilized Zirconia (3YTZP) â€“ Multi-Walled Nanotube (MWNTs) nanocomposite by direct in-situ growth of MWNTs on Zirconia particles. Composites Science and Technology, 2010, 70, 2086-2092.	3.8	55
83	Pulsed Electric Current Sintering of Electrical Discharge Machinable Ceramics. Advances in Science and Technology, 2010, 62, 175-184.	0.2	1
84	Mechanical properties of spark plasma sintered FeAl intermetallics. Intermetallics, 2010, 18, 1410-1414.	1.8	40
85	Powder synthesis, processing and characterization of lanthanum silicates for SOFC application. Journal of Alloys and Compounds, 2010, 495, 552-555.	2.8	19
86	Hydrothermal stability of mixed stabilised tetragonal (Y, Nd)-ZrO2 ceramics. Journal of Alloys and Compounds, 2010, 495, 556-560.	2.8	10
87	Y2O3â€“Nd2O3 double stabilized ZrO2â€“TiCN nanocomposites. Materials Chemistry and Physics, 2009, 113, 596-601.	2.0	6
88	Effect of Different Stabilizer Addition on Preparation and Hydrothermal Stability of ZrO₂-TiN Composites with Varying TiN Content. Key Engineering Materials, 2008, 361-363, 795-798.	0.4	0
89	Production and characterization of ZrO2 ceramics and composites to be used for hip prosthesis. Journal of Materials Science, 2008, 43, 1599-1611.	1.7	11
90	Pulsed electric current sintering of electrically conductive ceramics. Journal of Materials Science, 2008, 43, 6435-6440.	1.7	19

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91	Influence of the type and grain size of the electro-conductive phase on the Wire-EDM performance of ZrO 2 ceramic composites. CIRP Annals - Manufacturing Technology, 2008, 57, 191-194.	1.7	48
92	Influence of starting powder on the microstructure of WCâ€“Co hardmetals obtained by spark plasma sintering. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2008, 475, 87-91.	2.6	32
93	Binderless WC and WCâ€“VC materials obtained by pulsed electric current sintering. International Journal of Refractory Metals and Hard Materials, 2008, 26, 41-47.	1.7	95
94	Tailored sintering of VC-doped WCâ€“Co cemented carbides by pulsed electric current sintering. International Journal of Refractory Metals and Hard Materials, 2008, 26, 256-262.	1.7	22
95	Characterization of Y₂O₃, CeO₂ and Y₂O₃+CeO₂ Doped FGM Tetragonal ZrO₂ Ceramics by Spark Plasma Sintering. Key Engineering Materials, 2007, 333, 231-234.	0.4	3
96	The influence of percolation during pulsed electric current sintering of ZrO2â€“TiN powder compacts with varying TiN content. Acta Materialia, 2007, 55, 1801-1811.	3.8	51
97	Development of ZrO2â€“WC composites by pulsed electric current sintering. Journal of the European Ceramic Society, 2007, 27, 3269-3275.	2.8	31
98	Influence of CeO2Reduction on the Microstructure and Mechanical Properties of Pulsed Electric Current Sintered Y2O3?CeO2Co-Stabilized ZrO2Ceramics. Journal of the American Ceramic Society, 2007, 90, 1420-1426.	1.9	16
99	VC, Cr3C2 and NbC doped WCâ€“Co cemented carbides prepared by pulsed electric current sintering. International Journal of Refractory Metals and Hard Materials, 2007, 25, 417-422.	1.7	89
100	Synthesis and characterization of Cr2AlC ceramics prepared by spark plasma sintering. Materials Letters, 2007, 61, 4442-4445.	1.3	68
101	Synthesis and microstructural features of ZrB2â€“SiC-based composites by reactive spark plasma sintering and reactive hot pressing. Scripta Materialia, 2007, 57, 317-320.	2.6	83
102	Field assisted sintering of electro-conductive ZrO2-based composites. Journal of the European Ceramic Society, 2007, 27, 979-985.	2.8	75
103	Origin of the Potential Drop Over the Deposit During Electrophoretic Deposition. Journal of the American Ceramic Society, 2006, 89, 823-828.	1.9	42
104	Ketone-amine based suspensions for electrophoretic deposition of Al2O3 and ZrO2. Journal of the European Ceramic Society, 2006, 26, 3531-3537.	2.8	12
105	Electrophoretic Deposition as a Novel Near Net Shaping Technique for Functionally Graded Biomaterials. Key Engineering Materials, 2006, 314, 213-218.	0.4	37
106	The Evolution of the Electrical Field Drop over the Suspension during EPD. Key Engineering Materials, 2006, 314, 13-18.	0.4	4
107	Influence of Electrostatic Interactions in the Deposit on the Electrical Field Strength during Electrophoretic Deposition. Key Engineering Materials, 2006, 314, 181-186.	0.4	9
108	Throwing Power during Electrophoretic Deposition. Key Engineering Materials, 2006, 314, 187-194.	0.4	9

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109	Hard, tough and strong ZrO2â€“WC composites from nanosized powders. Journal of the European Ceramic Society, 2005, 25, 55-63.	2.8	80
110	Modelling of the temperature distribution during field assisted sintering. Acta Materialia, 2005, 53, 4379-4388.	3.8	399
111	A Mathematical Description of the Kinetics of the Electrophoretic Deposition Process for Al₂O₃â€Based Suspensions. Journal of the American Ceramic Society, 2005, 88, 2036-2039.	1.9	37
112	Processing of a Graded Ceramic Cutting Tool in the Al₂O₃-ZrO₂-Ti(C,N) System by Electrophoretic Deposition. Materials Science Forum, 2005, 492-493, 705-710.	0.3	11
113	Microstructure and Mechanical Properties of Spark Plasma Sintered ZrO₂-Al₂O₃-TiC_{0.5}N<sub>0.5</su Nanocomposites. Solid State Phenomena, 2005, 106, 153-160.	0.3	4
114	Stress Relaxation on Polished Cross-Sections of Al₂O₃/ZrO₂ FGM Discs Measured by Raman Spectroscopy. Materials Science Forum, 2005, 492-493, 641-646.	0.3	3
115	Electrophoretic Deposition as a Novel Near Net Shaping Technique for Functionally Graded Biomaterials. Materials Science Forum, 2005, 492-493, 213-218.	0.3	9
116	Influence of the suspension composition on the electric field and deposition rate during electrophoretic deposition. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2004, 245, 35-39.	2.3	48
117	Influence of Alumina Addition on Low Temperature Degradation of Y₂O₃-Coated Powder Based Y-TZP Ceramics. Advances in Science and Technology, 0, , .	0.2	0
118	Solid State Recycling of Aluminium Sheet Scrap by Means of Spark Plasma Sintering. Key Engineering Materials, 0, 639, 493-498.	0.4	9
119	Electrophoretic Deposition as a Novel Near Net Shaping Technique for Functionally Graded Biomaterials. Materials Science Forum, 0, , 213-218.	0.3	3
120	Throwing Power during Electrophoretic Deposition. Key Engineering Materials, 0, , 187-194.	0.4	1