

# Mxolisi Shongwe

## List of Publications by Year in descending order

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56  
papers

667  
citations

686830

13  
h-index

642321

23  
g-index

56  
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56  
docs citations

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times ranked

485  
citing authors

#	ARTICLE	IF	CITATIONS
1	Effect of sintering temperature on the microstructure and mechanical properties of Fe-30%Ni alloys produced by spark plasma sintering. <i>Journal of Alloys and Compounds</i> , 2015, 649, 824-832.	2.8	81
2	Effect of starting powder particle size and heating rate on spark plasma sintering of Fe Ni alloys. <i>Journal of Alloys and Compounds</i> , 2016, 678, 241-248.	2.8	59
3	Effect of sintering parameters on densification, corrosion and wear behaviour of Ni-50Fe alloy prepared by spark plasma sintering. <i>Journal of Alloys and Compounds</i> , 2017, 699, 1166-1179.	2.8	38
4	Optimization of process parameters for spark plasma sintering of nano structured SAF 2205 composite. <i>Journal of Materials Research and Technology</i> , 2018, 7, 126-134.	2.6	37
5	Spark plasma sintering of graphite-aluminum powder reinforced with SiC/Si particles. <i>Powder Technology</i> , 2015, 284, 504-513.	2.1	31
6	A comparative study of spark plasma sintering and hybrid spark plasma sintering of 93W-4.9Ni-2.1Fe heavy alloy. <i>International Journal of Refractory Metals and Hard Materials</i> , 2016, 55, 16-23.	1.7	31
7	Tribocorrosion behaviours of AISI 310 and AISI 316 austenitic stainless steels in 3.5% NaCl solution. <i>Materials Chemistry and Physics</i> , 2016, 171, 239-246.	2.0	28
8	Effect of nickel addition on densification, microstructure and wear behaviour of spark plasma sintered CP-titanium. <i>Materials Chemistry and Physics</i> , 2020, 240, 122130.	2.0	25
9	Synthesis, Optimization and Characterization of Silicon Carbide (SiC) from Rice Husk. <i>Procedia Manufacturing</i> , 2019, 35, 962-967.	1.9	19
10	Densification and structural transformation during spark plasma sintering of WC-Co-YSZ-cBN systems. <i>International Journal of Refractory Metals and Hard Materials</i> , 2018, 72, 341-348.	1.7	18
11	Synthesis, microstructural and phase evolution in Ti-2Ni and Ti-10Ni binary alloys consolidated by spark plasma sintering technique. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 104, 1041-1049.	1.5	18
12	Effect of Sintering Temperature and Yttrium Composition on the Densification, Microstructure and Mechanical Properties of Spark Plasma Sintered Silicon Nitride Ceramics with Al <sub>2</sub> O <sub>3</sub> and Y <sub>2</sub> O <sub>3</sub> Additives. <i>Silicon</i> , 2019, 11, 2689-2699.	1.8	16
13	Densification and micro-structural characteristics of spark plasma sintered Ti-Zr-Ta powders. <i>Powder Technology</i> , 2017, 321, 471-478.	2.1	15
14	Densification, microstructure and mechanical properties of spark plasma sintered Ni-17%Cr binary alloys. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 101, 1573-1581.	1.5	14
15	Spark plasma sintering of titanium matrix composite-a review. <i>International Journal of Advanced Manufacturing Technology</i> , 2021, 117, 2529-2544.	1.5	14
16	Microstructural evolution and mechanical properties of pure titanium powders processed by spark plasma sintering. <i>Powder Technology</i> , 2019, 345, 415-424.	2.1	13
17	Synthesis and characterization of TiN nanoceramic reinforced Ti-7Al-1Mo composite produced by spark plasma sintering. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2021, 807, 140904.	2.6	13
18	Influence of Temperature on Microstructure and Mechanical Properties of Ni-40Fe-10Co Alloy Consolidated by Spark Plasma Sintering. <i>Procedia Manufacturing</i> , 2017, 7, 708-713.	1.9	12

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19	Microstructure, tribological and oxidation behaviour of spark plasma sintered Ti-Ni-xTiCN composites. <i>Journal of Alloys and Compounds</i> , 2022, 890, 161857.	2.8	12
20	Interfacial Reaction During High Energy Ball Milling Dispersion of Carbon Nanotubes into Ti6Al4V. <i>Journal of Materials Engineering and Performance</i> , 2017, 26, 6047-6056.	1.2	11
21	A study of nanocrystalline nickel powders developed via high-energy ball milling. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 102, 3657-3665.	1.5	11
22	Influence of nanocrystalline nickel powder on oxidation resistance of spark plasma sintered Ni-17Cr6.5Co1.2Mo6Al4W7.6Ta alloy. <i>Journal of King Saud University, Engineering Sciences</i> , 2020, 32, 198-204.	1.2	11
23	Spark plasma sintering of Ti-Ni-TiCN composites: Microstructural characterization, densification and mechanical properties. <i>Journal of Alloys and Compounds</i> , 2020, 848, 156559.	2.8	11
24	Improving mechanical and thermal properties of graphite-aluminium composite using Si, SiC and eggshell particles. <i>Journal of Composite Materials</i> , 2020, 54, 2365-2376.	1.2	10
25	Erosion-corrosion behaviour of spark plasma sintered WC - 12Co in aggressive media. <i>International Journal of Refractory Metals and Hard Materials</i> , 2017, 66, 36-43.	1.7	9
26	Spark plasma sintering of Ti-48Al intermetallic using elemental powder. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 103, 3025-3032.	1.5	9
27	Sintering behavior and effect of ternary additions on the microstructure and mechanical properties of Ni-Fe-based alloy. <i>Particulate Science and Technology</i> , 2018, 36, 643-654.	1.1	8
28	Interdependence of carbon nanotubes agglomerations, its structural integrity and the mechanical properties of reinforced nickel aluminide composites. <i>Journal of Alloys and Compounds</i> , 2019, 803, 514-526.	2.8	8
29	Sintering behavior and alloying elements effects on the properties of CP-Titanium sintered using pulsed electric current. <i>Materials Chemistry and Physics</i> , 2020, 256, 123707.	2.0	8
30	Effect of scanning speed on laser deposited 17-4PH stainless steel. , 2017, , .		7
31	Carbon nanotube-reinforced intermetallic matrix composites: processing challenges, consolidation, and mechanical properties. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 104, 3803-3820.	1.5	7
32	Microstructure, Hardness, and Wear Assessment of Spark-Plasma-Sintered Ti-xAl-1Mo Alloy. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2020, 51, 4033-4044.	1.1	6
33	Wet ball milling of niobium by using ethanol, determination of the crystallite size and microstructures. <i>Scientific Reports</i> , 2021, 11, 22422.	1.6	6
34	Anisotropic behavior studies of aluminum alloy 5083-H0 using a micro-tensile test stage in a FEG-SEM. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2016, 656, 266-274.	2.6	5
35	Effect of micron and nano-sized ZrB <sub>2</sub> addition on the microstructure and properties of spark plasma sintered graphite-aluminum hybrid composite. <i>Journal of Materials Science: Materials in Electronics</i> , 2016, 27, 4672-4688.	1.1	5
36	The influence of heating rate on the microstructural evolutions and mechanical properties of spark plasma sintered multi-walled carbon nanotubes reinforced NiAl intermetallic matrix composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2020, 773, 138869.	2.6	5

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37	Influence of ball milling parameters on the dispersion characteristics and structural integrity of MWCNTs in nickel aluminide matrix powders. <i>Particulate Science and Technology</i> , 2021, 39, 298-311.	1.1	5
38	Dependence of Fracture Patterns in Spark Plasma Sintered Irregular Shaped Ti6Al4V Powders on Densification. <i>Procedia Manufacturing</i> , 2017, 7, 567-572.	1.9	4
39	Wear and corrosion studies of graphite-aluminum composite reinforced with micro/nano-TiB <sub>2</sub> via spark plasma sintering. <i>Materialwissenschaft Und Werkstofftechnik</i> , 2019, 50, 126-139.	0.5	4
40	Effect of Nanocrystalline Nickel Powder and Co, Mo, Ta, and Al Additions on Isothermal Oxidation Behavior of Ni-17Cr Alloy. <i>Metallography, Microstructure, and Analysis</i> , 2020, 9, 75-85.	0.5	4
41	Effects of ternary metal additions on corrosion of spark plasma sintered Ni-Fe alloys in H <sub>2</sub> SO <sub>4</sub> and NaCl. <i>Bulletin of the Chemical Society of Ethiopia</i> , 2018, 32, 337.	0.5	3
42	Effect of Co and Fe contents on the microstructure and corrosion behaviour of heat-treated Ni-Fe-Co superalloys in 3.5 wt% NaCl aqueous solution. <i>International Journal of Advanced Manufacturing Technology</i> , 0, , 1.	1.5	3
43	Particle Variations and Effect on the Microstructure and Microhardness of Ti6Al4V Hybrid Metal Matrix System. <i>Procedia Manufacturing</i> , 2017, 7, 616-621.	1.9	2
44	Spark Plasma Sintering Consolidation of Equi-Atomic TiAlMoSiW High Entropy Alloy. <i>Procedia Manufacturing</i> , 2019, 35, 968-973.	1.9	2
45	The effect of Cr additions and oxidation on densification, microstructure, phase constituents and mechanical properties of TiAlCr alloys produced by SPS. <i>Materials Today: Proceedings</i> , 2021, 38, 621-627.	0.9	2
46	Spark plasma sintering behavior of Ti-3Al-1Mo alloy. <i>Materials Today: Proceedings</i> , 2021, 38, 1121-1125.	0.9	2
47	Mechanical properties and phase evolutions in heat-treated cast Al-Ni-Cu <sub>2</sub> O metal matrix composites. <i>Materials Research Express</i> , 2019, 6, 086518.	0.8	1
48	Evaluation of Wear and Corrosion Behaviour of Hybrid Sintered Ti <sub>6</sub> Al <sub>4</sub> V Alloy. <i>Key Engineering Materials</i> , 0, 821, 321-326.	0.4	1
49	Investigation of Corrosion Response of Spark Plasma Sintered Ni-9Fe-22Cr-10Co Superalloy in Sulphuric Acid Environment. <i>Journal of Bio- and Tribo-Corrosion</i> , 2021, 7, 1.	1.2	1
50	Preliminary Assessment of Spark Plasma Sintered Nickel-Based Quaternary Superalloy. <i>Metallography, Microstructure, and Analysis</i> , 2021, 10, 64-73.	0.5	1
51	Effect of silica concentration on degree of sintering of chromite-silica ladle well filler sand based on South African raw materials. <i>Journal of the Southern African Institute of Mining and Metallurgy</i> , 2022, 122, 1-13.	0.1	1
52	The effect of silicon carbide on the mechanical and thermal behavior of spark plasma sintered silicon nitride ceramics with Al <sub>2</sub> O <sub>3</sub> and Y <sub>2</sub> O <sub>3</sub> additives. <i>Materials Research Express</i> , 2019, 6, 055019.	0.8	0
53	Fabrication And Effect Of Milling Time On Spark Plasma Sintered Ti6Al4V/Gr Composite. <i>Materials Today: Proceedings</i> , 2019, 18, 3693-3701.	0.9	0
54	Effect of sintering temperatures on the properties of in-situ copper-niobium-titanium di-boride composites. <i>SN Applied Sciences</i> , 2020, 2, 1.	1.5	0

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55	Spark Plasma Synthesis and Tribological Behaviour of Ti-Ni-TiCN Nanocomposite. International Journal of Engineering Research in Africa, 0, 55, 141-149.	0.7	0
56	Dry Sliding Wear and High-Velocity Impact Behaviour of Spark Plasma Sintered Ti-Ni Binary Alloys. International Journal of Engineering Research in Africa, 0, 57, 1-18.	0.7	0