Kantesh Balani

List of Publications by Citations

211 papers	5,562 citations	36 h-index	67 g-index
219 ext. papers	6,462 ext. citations	4.7 avg, IF	6.14 L-index

#	Paper	IF	Citations
211	Progress in material selection for solid oxide fuel cell technology: A review. *Progress in Materials Science*, **2015**, 72, 141-337	42.2	847
210	Plasma-sprayed carbon nanotube reinforced hydroxyapatite coatings and their interaction with human osteoblasts in vitro. *Biomaterials*, **2007**, 28, 618-24	15.6	386
209	Challenges and advances in nanocomposite processing techniques. *Materials Science and Engineering Reports*, **2006**, 54, 121-285	30.9	344
208	Carbon nanotube reinforced aluminum composite coating via cold spraying. *Surface and Coatings Technology*, **2008**, 202, 5162-5169	4.4	175
207	Tribological behavior of plasma-sprayed carbon nanotube-reinforced hydroxyapatite coating in physiological solution. *Acta Biomaterialia*, **2007**, 3, 944-51	10.8	161
206	Effect of carrier gases on microstructural and electrochemical behavior of cold-sprayed 1100 aluminum coating. *Surface and Coatings Technology*, **2005**, 195, 272-279	4.4	105
205	In situ carbon nanotube reinforcements in a plasma-sprayed aluminum oxide nanocomposite coating. *Acta Materialia*, **2008**, 56, 571-579	8.4	91
204	Multiscale wear of plasma-sprayed carbon-nanotube-reinforced aluminum oxide nanocomposite coating. *Acta Materialia*, **2008**, 56, 5984-5994	8.4	91
203	Role of powder treatment and carbon nanotube dispersion in the fracture toughening of plasma-sprayed aluminum oxide-carbon nanotube nanocomposite. *Journal of Nanoscience and Nanotechnology*, **2007**, 7, 3553-62	1.3	88
202	Functionally graded hydroxyapatite-alumina-zirconia biocomposite: Synergy of toughness and biocompatibility. *Materials Science and Engineering C*, **2012**, 32, 1164-1173	8.3	85
201	Transmission electron microscopy of cold sprayed 1100 aluminum coating. *Scripta Materialia*, **2005**, 53, 845-850	5.6	81
200	Effect of carbonaceous reinforcements on the mechanical and tribological properties of friction stir processed Al6061 alloy. *Materials and Design*, **2016**, 98, 155-166	8.1	78
199	Effect of carbon nanotube on processing, microstructural, mechanical and ablation behavior of ZrB2-20SiC based ultra-high temperature ceramic composites. *Carbon*, **2017**, 111, 269-282	10.4	77
198	**2011**,		75
197	Mechanical properties of carbon nanotube–alumina nanocomposites synthesized by chemical vapor deposition and spark plasma sintering. *Composites Part A: Applied Science and Manufacturing*, **2009**, 40, 86-93	8.4	74
196	Superhydrophobic self-floating carbon nanofiber coating for efficient gravity-directed oil/water separation. *Journal of Materials Chemistry A*, **2017**, 5, 2936-2946	13	73
195	Effect of carbon nanotube and aluminum oxide addition on plasma-sprayed hydroxyapatite coatings' mechanical properties and biocompatibility. *Materials Science and Engineering C*, **2009**, 29, 2195-2202	8.3	71

194	Microstructure evolution and texture development in thermomechanically processed Mg–Li–Al based alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2012**, 547, 38-50	5.3	58
193	Synthesis, Microstructural Characterization, and Mechanical Property Evaluation of Vacuum Plasma Sprayed Tantalum Carbide. *Journal of the American Ceramic Society*, **2006**, 89, 1419-1425	3.8	58
192	Investigation of failure behavior of ferritic–austenitic type of dissimilar steel welded joints. *Engineering Failure Analysis*, **2011**, 18, 999-1008	3.2	56
191	Tribological performance of laser peened Ti–6Al–4V. *Wear*, **2015**, 322-323, 203-217	3.5	54
190	Microstructure, mechanical properties, and in vitro biocompatibility of spark plasma sintered hydroxyapatite–aluminum oxide–carbon nanotube composite. *Materials Science and Engineering C*, **2010**, 30, 1162-1169	8.3	50
189	Oxidation studies on TaC based ultra-high temperature ceramic composites under plasma arc jet exposure. *Corrosion Science*, **2016**, 109, 50-61	6.8	49
188	Chromium carbide–CNT nanocomposites with enhanced mechanical properties. *Acta Materialia*, **2009**, 57, 335-344	8.4	48
187	Process map for plasma sprayed aluminum oxide–carbon nanotube nanocomposite coatings. *Surface and Coatings Technology*, **2008**, 202, 4270-4277	4.4	48
186	Multi-scale hierarchy of Chelydra serpentina: microstructure and mechanical properties of turtle shell. *Journal of the Mechanical Behavior of Biomedical Materials*, **2011**, 4, 1440-51	4.1	46
185	Wetting of carbon nanotubes by aluminum oxide. *Nanotechnology*, **2008**, 19, 165701	3.4	46
184	Thermal Conductivity of Plasma-Sprayed Aluminum Oxide–Multiwalled Carbon Nanotube Composites. *Journal of the American Ceramic Society*, **2008**, 91, 942-947	3.8	45
183	Antioxidant and antibacterial hydroxyapatite-based biocomposite for orthopedic applications. *Materials Science and Engineering C*, **2018**, 88, 13-24	8.3	44
182	Compression Molded Ultra High Molecular Weight Polyethylene–Hydroxyapatite–Aluminum Oxide–Carbon Nanotube Hybrid Composites for Hard Tissue Replacement. *Journal of Materials Science and Technology*, **2013**, 29, 514-522	9.1	43
181	Adhesion force of staphylococcus aureus on various biomaterial surfaces. *Journal of the Mechanical Behavior of Biomedical Materials*, **2017**, 65, 872-880	4.1	43
180	Fretting wear of Mg–Li–Al based alloys. *Wear*, **2014**, 318, 177-187	3.5	42
179	Bactericidal effect of silver-reinforced carbon nanotube and hydroxyapatite composites. *Journal of Biomaterials Applications*, **2013**, 27, 967-78	2.9	41
178	Dielectric and Pyroelectric Properties of HAp-BaTiO3 Composites. *Ferroelectrics*, **2011**, 423, 63-76	0.6	39
177	Structural transformations in carbon nanotubes during thermal spray processing. *Surface and Coatings Technology*, **2009**, 203, 2193-2201	4.4	37

176	Doped zirconia and ceria-based electrolytes for solid oxide fuel cells: a review. *Nanomaterials and Energy*, **2012**, 1, 27-45	1.1	36
175	Synergistic reinforcement of carbon nanotubes and silicon carbide for toughening tantalum carbide based ultrahigh temperature ceramic. *Journal of Materials Research*, **2016**, 31, 682-692	2.5	35
174	The nanomechanical and nanoscratch properties of MWNT-reinforced ultrahigh-molecular-weight polyethylene coatings. *Jom*, **2007**, 59, 50-53	2.1	33
173	An experimental and numerical investigation of fracture resistance behaviour of a dissimilar metal welded joint. *Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science*, **2009**, 223, 1507-1523	1.3	31
172	Damping behavior of carbon nanotube reinforced aluminum oxide coatings by nanomechanical dynamic modulus mapping. *Journal of Applied Physics*, **2008**, 104, 063517	2.5	31
171	Phase and Microstructural Correlation of Spark Plasma Sintered HfB2-ZrB2 Based Ultra-High Temperature Ceramic Composites. *Coatings*, **2017**, 7, 110	2.9	30
170	Effect of ZnO morphology on affecting bactericidal property of ultra high molecular weight polyethylene biocomposite. *Materials Science and Engineering C*, **2016**, 62, 843-51	8.3	30
169	The hydrophobicity of a lotus leaf: a nanomechanical and computational approach. *Nanotechnology*, **2009**, 20, 305707	3.4	29
168	Processing, Characterization and Fretting Wear of Zinc Oxide and Silver Nanoparticles Reinforced Ultra High Molecular Weight Polyethylene Biopolymer Nanocomposite. *Jom*, **2015**, 67, 688-701	2.1	28
167	Multifunctional Properties of Multistage Spark Plasma Sintered HABaTiO3-Based Piezobiocomposites for Bone Replacement Applications. *Journal of the American Ceramic Society*, **2013**, 96, 3753-3759	3.8	28
166	Melanocyte pigmentation stiffens murine cardiac tricuspid valve leaflet. *Journal of the Royal Society Interface*, **2009**, 6, 1097-102	4.1	28
165	The nano-scratch behavior of biocompatible hydroxyapatite reinforced with aluminum oxide and carbon nanotubes. *Jom*, **2009**, 61, 63-66	2.1	28
164	Carbon nanotubes stabilize high temperature phase and toughen Al2O3-based thermal barrier coatings. *Composites Part B: Engineering*, **2017**, 124, 76-87	10	26
163	Multifunctionality of Perovskites BaTiO3 and CaTiO3 in a Composite with Hydroxyapatite as Orthopedic Implant Materials. *Integrated Ferroelectrics*, **2011**, 131, 119-126	0.8	26
162	Cellular response of Escherichia coli to Mg-2Zn-2Gd alloy with different grain structure: mechanism of disruption of colonisation. *Materials Technology*, **2016**, 31, 836-844	2.1	25
161	Domination of volumetric toughening by silver nanoparticles over interfacial strengthening of carbon nanotubes in bactericidal hydroxyapatite biocomposite. *Materials Science and Engineering C*, **2014**, 34, 455-67	8.3	24
160	Spark Plasma Sintered HA-Fe3O4-Based Multifunctional Magnetic Biocomposites. *Journal of the American Ceramic Society*, **2013**, 96, 2100-2108	3.8	24
159	Multi-mode hydrogen storage in nanocontainers. *International Journal of Hydrogen Energy*, **2017**, 42, 24256-24262	6.7	24

158	Fabrication and evaluation of a pulse laser-induced Ca-P coating on a Ti alloy for bioapplication. *Biomedical Materials (Bristol)*, **2009**, 4, 015009	3.5	24
157	Modified Eshelby tensor modeling for elastic property prediction of carbon nanotube reinforced ceramic nanocomposites. *Applied Physics Letters*, **2007**, 91, 031903	3.4	24
156	Synthesis of nanostructured spherical aluminum oxide powders by plasma engineering. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2005**, 36, 301-309	2.3	24
155	Grain Growth Behavior of Aluminum Oxide Reinforced with Carbon Nanotube During Plasma Spraying and PostSpray Consolidation. *International Journal of Applied Ceramic Technology*, **2010**, 7, 846-855	2	23
154	An environment-friendly phosphate chemical conversion coating on novel Mg-9Li-7Al-1Sn and Mg-9Li-5Al-3Sn-1Zn alloys with remarkable corrosion protection. *Applied Surface Science*, **2018**, 443, 429-440	6.7	22
153	Enhanced hydrogen storage in accumulative roll bonded Mg-based hybrid. *International Journal of Hydrogen Energy*, **2015**, 40, 11498-11505	6.7	22
152	Analytical model to evaluate interface characteristics of carbon nanotube reinforced aluminum oxide nanocomposites. *Applied Physics Letters*, **2008**, 92, 011916	3.4	22
151	Topographical effects of laser surface texturing on various time-dependent wetting regimes in Ti6Al4V. *Surface and Coatings Technology*, **2018**, 349, 816-829	4.4	22
150	**2014**,		22
149	Site-specific antibacterial efficacy and cyto/hemo-compatibility of zinc substituted hydroxyapatite. *Ceramics International*, **2019**, 45, 12225-12233	5.1	21
148	Effect of laser melting on plasma-sprayed aluminum oxide coatings reinforced with carbon nanotubes. *Applied Physics A: Materials Science and Processing*, **2009**, 94, 861-870	2.6	21
147	Porosity distribution affecting mechanical and biological behaviour of hydroxyapatite bioceramic composites. *Ceramics International*, **2017**, 43, 10442-10449	5.1	20
146	Single step laser surface texturing for enhancing contact angle and tribological properties. *International Journal of Advanced Manufacturing Technology*, **2019**, 100, 1253-1267	3.2	20
145	Synergistic effect of static magnetic field and HA-Fe3O4 magnetic composites on viability of S. aureus and E. coli bacteria. *Journal of Biomedical Materials Research - Part B Applied Biomaterials*, **2014**, 102, 524-32	3.5	20
144	Thermal-fluidic transport characteristics of bi-porous wicks for potential loop heat pipe systems. *Experimental Thermal and Fluid Science*, **2018**, 94, 355-367	3	20
143	Dispersion fraction enhances cellular growth of carbon nanotube and aluminum oxide reinforced ultrahigh molecular weight polyethylene biocomposites. *Materials Science and Engineering C*, **2015**, 46, 504-13	8.3	19
142	Ionic conductivity of plasma-sprayed nanocrystalline yttria-stabilized zirconia electrolyte for solid oxide fuel cells. *Scripta Materialia*, **2009**, 60, 1023-1026	5.6	19
141	Effect of current density and grain refining agents on pulsed electrodeposition of nanocrystalline nickel. *Surface Engineering*, **2011**, 27, 642-648	2.6	19

140	Role of Interfaces on Multi-length Scale Wear Mechanics of TaC-based Composites . *Advanced Engineering Materials*, **2017**, 19, 1600713	3.5	18
139	Do thermal residual stresses contribute to the improved fracture toughness of carbon nanotube/alumina nanocomposites?. *Scripta Materialia*, **2012**, 66, 347-350	5.6	18
138	Multi-functionality of carbon nanotubes reinforced 3 mol% yttria stabilized zirconia structural biocomposites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2017**, 704, 329-343	5.3	18
137	Enhanced Tribological and Bacterial Resistance of Carbon Nanotube with Ceria- and Silver-Incorporated Hydroxyapatite Biocoating. *Nanomaterials*, **2018**, 8,	5.4	17
136	Structural Characteristics and Electrical Conductivity of Spark Plasma Sintered Ytterbia Co-doped Scandia Stabilized Zirconia. *Journal of the American Ceramic Society*, **2017**, 100, 204-214	3.8	17
135	Effect of current density on the pulsed co-electrodeposition of nanocrystalline nickel-copper alloys. *Jom*, **2010**, 62, 88-92	2.1	17
134	Effect of sintering on mechanical properties of ceria reinforced yttria stabilized zirconia. *Ceramics International*, **2016**, 42, 11393-11403	5.1	17
133	Carbon Nanotube Functionalization Decreases Osteogenic Differentiation in Aluminum Oxide Reinforced Ultrahigh Molecular Weight Polyethylene. *ACS Biomaterials Science and Engineering*, **2016**, 2, 1242-1256	5.5	17
132	Processing, microstructure and mechanical properties of HfB2-ZrB2-SiC composites: Effect of B4C and carbon nanotube reinforcements. *International Journal of Refractory Metals and Hard Materials*, **2019**, 81, 111-118	4.1	16
131	Solid solutioning in ZrB2 with HfB2: Effect on densification and oxidation resistance. *International Journal of Refractory Metals and Hard Materials*, **2019**, 84, 105041	4.1	16
130	Fractal model for estimating fracture toughness of carbon nanotube reinforced aluminum oxide. *Journal of Applied Physics*, **2010**, 107, 123532	2.5	16
129	Size Effect of Yttria Stabilized Zirconia Addition on Fracture Toughness and Thermal Conductivity of Plasma Sprayed Aluminum Oxide Composite Coatings. *Nanoscience and Nanotechnology Letters*, **2013**, 4, 323-332	0.8	16
128	Enhanced thermo-mechanical damage tolerance of functionally graded ZrB2-20SiC ceramic reinforced with carbon nanotubes. *Ceramics International*, **2019**, 45, 6198-6208	5.1	16
127	In vitro degradation and biomineralization ability of hydroxyapatite coated Mg-9Li-7Al-1Sn and Mg-9Li-5Al-3Sn-1Zn alloys. *Surface and Coatings Technology*, **2017**, 325, 65-74	4.4	15
126	Dual-Layer Oxidation-Protective Plasma-Sprayed SiC-ZrB2/Al2O3-Carbon Nanotube Coating on Graphite. *Journal of Thermal Spray Technology*, **2017**, 26, 417-431	2.5	15
125	Interfacial Effect of the Oxygen-Ion Distribution on the Conduction Mechanism in Strontium-Added Ce0.8Sm0.2O2−Na2CO3 Nanocomposite. *Journal of Physical Chemistry C*, **2016**, 120, 25068-25077	3.8	15
124	Mechanics of ZnO micro-rod and ZnO nanoparticle reinforcement in ultra-high molecular weight polyethylene biocomposite. *Journal Physics D: Applied Physics*, **2014**, 47, 345301	3	15
123	Phase stability and conductivity in the pseudo ternary system of xYb2O3-(12-x)Sc2O3-88ZrO2 (0 x 5). *Solid State Ionics*, **2019**, 332, 93-101	3.3	14

122	Corrosion Behavior of Novel Mg-9Li-7Al-1Sn and Mg-9Li-5Al-3Sn-1Zn Alloys in NaCl Aqueous Solution. *Journal of Materials Engineering and Performance*, **2015**, 24, 4060-4070	1.6	14
121	Electrophoretic deposition of nanocrystalline hydroxyapatite on Ti6Al4V/TiO2 substrate **2013**, 10, 263-275		14
120	Serrated yielding during nanoindentation of thermomechanically processed novel Mg9Li7Al1Sn and Mg9Li5Al3Sn1Zn alloys. *Journal Physics D: Applied Physics*, **2013**, 46, 145304	3	14
119	Establishing microstructure-mechanical property correlation in ZrB2-based ultra-high temperature ceramic composites. *Ceramics International*, **2017**, 43, 13483-13492	5.1	14
118	Effect of carrier gas on mechanical properties and fracture behaviour of cold sprayed aluminium coatings. *Surface Engineering*, **2007**, 23, 18-22	2.6	14
117	Creep behavior of 90 Pb10 Sn alloy. *Physica Status Solidi A*, **2003**, 198, 387-394		14
116	Mechanical, tribological and anti-corrosive properties of polyaniline/graphene coated Mg-9Li-7Al-1Sn and Mg-9Li-5Al-3Sn-1Zn alloys. *Journal of Materials Science and Technology*, **2019**, 35, 1767-1778	9.1	13
115	Synergistic role of carbon nanotube and yttria stabilised zirconia reinforcement on wear and corrosion resistance of Cr-based nano-composite coatings. *Surface and Coatings Technology*, **2020**, 385, 125381	4.4	13
114	Restriction of Phase Transformation in Carbon Nanotube-Reinforced Yttria-Stabilized Zirconia. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2015**, 46, 2965-2974	2.3	13
113	Crack Propagation Resistance of Al2O3 Reinforced Pulsed Laser-Deposited Hydroxyapatite Coating on 316 Stainless Steel. *Jom*, **2014**, 66, 2095-2107	2.1	13
112	Oxidation kinetics of ZrB2-and HfB2-powders and their SiC reinforced composites. *Corrosion Science*, **2020**, 177, 109024	6.8	12
111	Multi-length scale tribology of hydroxyapatite reinforced with ceria and silver. *Wear*, **2018**, 404-405, 12-21	3.5	12
110	Protective trivalent Cr-based electrochemical coatings for gun barrels. *Journal of Alloys and Compounds*, **2018**, 768, 1039-1048	5.7	12
109	Dependence of Protein Adsorption on Wetting Behavior of UHMWPE/HA/Al2O3/CNT Hybrid Biocomposites. *Jom*, **2012**, 64, 506-513	2.1	12
108	Grain Growth Behavior of Al2O3 Nanomaterials: A Review. *Materials Science Forum*, **2010**, 653, 87-130	0.4	12
107	Superhydrophobic, self-cleaning carbon nanofiber CVD coating for corrosion protection of AISI 1020 steel and AZ31 magnesium alloys. *Surface and Coatings Technology*, **2020**, 404, 126421	4.4	12
106	The Role of Nanomechanics in Healthcare. *Advanced Healthcare Materials*, **2018**, 7, 1700793	10.1	12
105	Effect of Thermal Aging on the Phase Stability of 1Yb2O3–xSc2O3–(99 – x)ZrO2 (x = 7, 8 mol %). *Journal of Physical Chemistry C*, **2019**, 123, 21982-21992	3.8	11

104	Nanomechanical Characterization and Protein Adsorption of Cold-Rolled Zirconium Alloy. *Jom*, **2015**, 67, 726-732	2.1	11
103	Hydrogen storage in MgMg2NiCarbon hybrids. *Journal of Alloys and Compounds*, **2015**, 645, S397-S399	5.7	11
102	Oxidation behaviour of coarse and fine SiC reinforced ZrB2 at re-entry and atmospheric oxygen pressures. *Ceramics International*, **2020**, 46, 11056-11065	5.1	11
101	Synergistic role of carbonaceous reinforcements on multi length scale tribology of electrophoretically deposited nickel-boron nitride coatings. *Materials Research Bulletin*, **2018**, 99, 61-72	5.1	11
100	Crystal Chemistry and Antibacterial Properties of Cupriferous Hydroxyapatite. *Materials*, **2019**, 12,	3.5	11
99	Nanomechanical Properties and Thermal Conductivity Estimation of Plasma-Sprayed, Solid-Oxide Fuel Cell Components: Ceria-Doped, Yttria-Stabilized Zirconia Electrolyte. *Jom*, **2013**, 65, 749-762	2.1	11
98	Synergistic effect of carbonaceous reinforcements on microstructural, electrochemical, magnetic and tribological properties of electrophoretically deposited nickel. *Journal of Alloys and Compounds* , **2017**, 711, 424-433	5.7	10
97	Effect of heat-treatment on microstructure, mechanical and tribological properties of Mg-Li-Al based alloy. *Journal of Materials Research and Technology*, **2020**, 9, 4749-4762	5.5	10
96	Densification kinetics and mechanical properties of tantalum carbide. *International Journal of Refractory Metals and Hard Materials*, **2018**, 73, 221-230	4.1	10
95	Effect of Alumina Dispersion on Microstructural and Nanomechanical Properties of Pulse Electrodeposited NickelAlumina Composite Coatings. *Journal of Materials Science and Technology*, **2014**, 30, 808-813	9.1	10
94	Nanomechanical properties of hafnium nitride coating. *Scripta Materialia*, **2008**, 58, 1121-1124	5.6	10
93	Progress in Electrochemical and Electrophoretic Deposition of Nickel with Carbonaceous Allotropes: A Review. *Advanced Materials Interfaces*, **2020**, 7, 1901096	4.6	10
92	Microporous Hydroxyapatite Ceramic Composites as Tissue Engineering Scaffolds: An Experimental and Computational Study. *Advanced Engineering Materials*, **2018**, 20, 1701062	3.5	9
91	Enhanced reversible hydrogen storage in nickel nano hollow spheres. *International Journal of Hydrogen Energy*, **2019**, 44, 22032-22038	6.7	9
90	Antibacterial and magnetic response of site-specific cobalt incorporated hydroxyapatite. *Ceramics International*, **2020**, 46, 513-522	5.1	9
89	Role of silver/zinc oxide in affecting de-adhesion strength of Staphylococcus aureus on polymer biocomposites. *Materials Science and Engineering C*, **2017**, 75, 1106-1114	8.3	8
88	Mechanics of ZnO morphological dependence on wear resistance of ultra high molecular weigh polyethylene. *European Journal of Mechanics, A/Solids*, **2017**, 65, 149-158	3.7	8
87	Interfacial mechanics of carbonaceous reinforcements in electrophoretically deposited nickel coatings. *Surface and Coatings Technology*, **2017**, 310, 79-86	4.4	8

86	Multi-Length Scale Tribology of Electrophoretically Deposited Nickel-Diamond Coatings. *Jom*, **2017**, 69, 227-235	2.1	8
85	Molecular modeling of metastable FeB49 phase evolution in laser surface engineered coating. *Journal of Applied Physics*, **2006**, 99, 044904	2.5	8
84	Effect of far-field stresses and residual stresses incorporation in predicting fracture toughness of carbon nanotube reinforced yttria stabilized zirconia. *Journal of Applied Physics*, **2017**, 122, 145104	2.5	7
83	Non-monotonic lattice parameter variation in ball-milled ceria. *Journal of Materials Science*, **2015**, 50, 6349-6358	4.3	7
82	Mechanical properties of spark plasma sintered ceria reinforced 8 mol% yttria-stabilized zirconia electrolyte. *Nanomaterials and Energy*, **2012**, 1, 306-315	1.1	7
81	Ab-initio molecular modeling of interfaces in tantalum-carbon system. *Journal of Applied Physics*, **2012**, 111, 063521	2.5	7
80	Effect of B4C reinforcement on microstructure, residual stress, toughening and scratch resistance of (Hf, Zr)B2 ceramics. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 796, 140022	5.3	7
79	Mechanical and Electrochemical Characterization of Supersolidus Sintered Austenitic Stainless Steel (316 L). *High Temperature Materials and Processes*, **2019**, 38, 792-805	0.9	7
78	Process induced alignment of carbon nanotube decreases longitudinal thermal conductivity of Al2O3 based porous composites. *Ceramics International*, **2019**, 45, 18951-18964	5.1	6
77	Effect of Zn and Co doping on antibacterial efficacy and cytocompatibility of spark plasma sintered hydroxyapatite. *Journal of the American Ceramic Society*, **2020**, 103, 4090-4100	3.8	6
76	Thermodynamic and microstructural basis for the fast hydrogenation kinetics in Mg/Mg2Ni-carbon hybrids. *International Journal of Hydrogen Energy*, **2020**, 45, 11632-11640	6.7	6
75	Effect of Hot Rolling on Microstructure and Texture Evolution of Mg-Li Based Alloy. *Materials Science Forum*, **2011**, 690, 347-350	0.4	6
74	Hybrid hollow structures for hydrogen storage. *International Journal of Hydrogen Energy*, **2020**, 45, 24076-24082	6.7	6
73	Poisson effect driven anomalous lattice expansion in metal nanoshells. *Applied Physics Letters*, **2017**, 110, 131603	3.4	5
72	Abridgment of nano and micro length scale mechanical properties of novel Mg9Li7Al1Sn and Mg9Li5Al3Sn1Zn alloys using object oriented finite element modeling. *Journal of Alloys and Compounds*, **2015**, 634, 24-31	5.7	5
71	Role of Interfaces in Damage Initiation and Tolerance of Carbon Nanotube-Reinforced HfB2-ZrB2 Ceramics. *Jom*, **2020**, 72, 2207-2218	2.1	5
70	Processing and Nano-mechanical Characterization of Mg-Li-Al based Alloys **2014**, 5, 585-591		5
69	Electrically active biocomposites as smart scaffolds for bone tissue engineering **2012**, 537-570		5

68	Microscratching and fretting of electro-co-deposited Cr-based composite coatings with BN, graphene, and diamond reinforcements. *Journal of Materials Science*, **2021**, 56, 6148-6166	4.3	5
67	Laser peening enhances tribological resistance of electrodeposited Cr coatings reinforced with yttria stabilized zirconia and carbon nano tubes. *Surface and Coatings Technology*, **2019**, 378, 124919	4.4	4
66	Structure and thermoelectric properties of calcium doped Sr2TiCoO6 double perovskites. *Materials Science and Engineering B: Solid-State Materials for Advanced Technology*, **2019**, 244, 65-71	3.1	4
65	Wear damage tolerance and high temperature oxidation behavior of HfB2:ZrB2–SiC composites. *Ceramics International*, **2020**, 46, 21689-21698	5.1	4
64	Solid electrolytes: emerging global competitors for satisfying energy needs. *Nanomaterials and Energy*, **2012**, 1, 243-246	1.1	4
63	A critical analysis of the X-ray diffraction intensities in concentrated multicomponent alloys. *International Journal of Materials Research*, **2019**, 110, 393-405	0.5	4
62	Multi-length scale wear damage mechanisms of ultra-high molecular weight polyethylene nanocomposites. *Polymer Testing*, **2020**, 81, 106210	4.5	4
61	Radiation-induced effects on micro-scratch of ultra high molecular weight polyethylene biocomposites. *Journal of Materials Research and Technology*, **2021**, 11, 2277-2293	5.5	4
60	Tribomechanical insight into carbide-laden hybrid suspension-powder plasma-sprayed Tribaloy T400 composite coatings. *Surface and Coatings Technology*, **2020**, 396, 125957	4.4	3
59	Surface Engineering and Modification for Biomedical Applications **2015**, 201-238		3
58	Process map for plasma sprayed aluminum oxide–carbon nanotube nanocomposite coatings. *Metal Finishing*, **2008**, 106, 45-51		3
57	Tuning the magnetism and tribological behaviour of electrodeposited Ni/Cu bi-layer by selective reinforcement of carbon nanotubes. *Journal of Alloys and Compounds*, **2020**, 818, 153287	5.7	3
56	Deposition of hydroxyapatite coatings by axial plasma spraying: Influence of feedstock characteristics on coating microstructure, phase content and mechanical properties. *Journal of the European Ceramic Society*, **2021**, 41, 4637-4649	6	3
55	Cross-sectional TEM investigation of Mg-LaNi5-Soot hybrids for hydrogen storage. *International Journal of Hydrogen Energy*, **2021**, 46, 5507-5519	6.7	3
54	High-temperature oxidation of graphite. *Nanomaterials and Energy*, **2018**, 7, 37-43	1.1	3
53	Effects of reinforcements and gamma-irradiation on wear performance of ultra-high molecular weight polyethylene as acetabular cup liner in hip-joint arthroplasty: A review. *Journal of Applied Polymer Science*, **2021**, 138, 51275	2.9	3
52	Fretting wear behaviour and frictional force mapping of Al2O3 based thermal barrier coatings. *International Journal of Refractory Metals and Hard Materials*, **2021**, 98, 105525	4.1	3
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49	Densification Kinetics of CeO2 Reinforced 8 Mol.% Y2O3 Stabilized ZrO2 Ceramics. *Jom*, **2018**, 70, 1937-1945	2.1	2
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46	Triggered Nanoexplosions of Pd Hollow Spheres. *Journal of Nanoscience and Nanotechnology*, **2020**, 20, 1941-1945	1.3	2
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