Csaba BalÃ¡zsi

List of Publications by Year
in descending order

100 papers	2,490 citations	201575 27 h-index	206029 48 g-index
102 all docs	102 docs citations	102 times ranked	2794 citing authors

#	Article	IF	Citations
1	Preparation and characterization of hydroxyapatite from eggshell. Ceramics International, 2010, 36, 803-806.	2.3	197
2	Fracture toughness and toughening mechanisms in graphene platelet reinforced Si3N4 composites. Scripta Materialia, 2012, 66, 793-796.	2.6	191
3	Preparation of calciumâ€“phosphate bioceramics from natural resources. Journal of the European Ceramic Society, 2007, 27, 1601-1606.	2.8	155
4	Microstructure and fracture toughness of Si3N4+graphene platelet composites. Journal of the European Ceramic Society, 2012, 32, 3389-3397.	2.8	151
5	Determination of structural and mechanical properties of multilayer graphene added silicon nitride-based composites. Ceramics International, 2012, 38, 211-216.	2.3	127
6	Tribological properties of Si3N4â€“graphene nanocomposites. Journal of the European Ceramic Society, 2013, 33, 2359-2364.	2.8	125
7	Development of CNT/Si3N4 composites with improved mechanical and electrical properties. Composites Part B: Engineering, 2006, 37, 418-424.	5.9	104
8	Nanosize hexagonal tungsten oxide for gas sensing applications. Journal of the European Ceramic Society, 2008, 28, 913-917.	2.8	95
9	Novel hexagonal WO3 nanopowder with metal decorated carbon nanotubes as NO2 gas sensor. Sensors and Actuators B: Chemical, 2008, 133, 151-155.	4.0	89
10	Preparation of hexagonal WO3 from hexagonal ammonium tungsten bronze for sensing NH3. Materials Research Bulletin, 2009, 44, 505-508.	2.7	79
11	Dispersion patterns of graphene and carbon nanotubes in ceramic matrix composites. Chemical Physics Letters, 2011, 511, 340-343.	1.2	77
12	Influence of hBN content on mechanical and tribological properties of Si3N4/BN ceramic composites. Journal of the European Ceramic Society, 2014, 34, 3319-3328.	2.8	60
13	Development of Nano-Hydroxyapatite Graft With Silk Fibroin Scaffold as a New Bone Substitute. Journal of Oral and Maxillofacial Surgery, 2011, 69, 1578-1586.	0.5	58
14	Tribological and electrical properties of ceramic matrix composites with carbon nanotubes. Ceramics International, 2012, 38, 5669-5676.	2.3	52
15	Comparative study of hydroxyapatite from eggshells and synthetic hydroxyapatite for bone regeneration. Oral Surgery, Oral Medicine, Oral Pathology and Oral Radiology, 2012, 113, 348-355.	0.2	44
16	High orientation degree of graphene nanoplatelets in silicon nitride composites prepared by spark plasma sintering. Ceramics International, 2016, 42, 1002-1006.	2.3	44
17	Development and characterization of multi-element doped hydroxyapatite bioceramic coatings on metallic implants for orthopedic applications. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2018, 57, 55-65.	0.9	44
18	Influence of processing on fracture toughness of Si3N4+graphene platelet composites. Journal of the European Ceramic Society, 2013, 33, 2299-2304.	2.8	43

#	Article	IF	Citations
19	Spark plasma sintering of graphene reinforced silicon carbide ceramics. Ceramics International, 2017, 43, 9005-9011.	2.3	43
20	Wear damage of Si3N4-graphene nanocomposites at room and elevated temperatures. Journal of the European Ceramic Society, 2014, 34, 3309-3317.	2.8	42
21	Spark plasma sintering of graphene reinforced hydroxyapatite composites. Ceramics International, 2015, 41, 3647-3652.	2.3	42
22	Si 3 N 4 /graphene nanocomposites for tribological application in aqueous environments prepared by attritor milling and hot pressing. Journal of the European Ceramic Society, 2017, 37, 3797-3804.	2.8	39
23	Nano-hydroxyapatite preparation from biogenic raw materials. Open Chemistry, 2010, 8, 375-381.	1.0	34
24	Highly wear-resistant and low-friction Si3N4 composites by addition of graphene nanoplatelets approaching the 2D limit. Scientific Reports, 2017, 7, 10087.	1.6	33
25	Structural characterization of Si3N4â€“carbon nanotube interfaces by transmission electron microscopy. Composites Science and Technology, 2008, 68, 1596-1599.	3.8	30
26	Comparative Study of hydroxyapatite prepared from seashells and eggshells as a bone graft material. Tissue Engineering and Regenerative Medicine, 2014, 11, 113-120.	1.6	30
27	Development of tungsten oxide hydrate phases during precipitation, room temperature ripening and hydrothermal treatment. Solid State Ionics, 2002, 151, 353-358.	1.3	29
28	Synthesis and Sensing Properties to NH₃of Hexagonal WO₃Metastable Nanopowders. Materials and Manufacturing Processes, 2007, 22, 773-776.	2.7	26
29	Effect of the oxidization of Si3N4 powder on the microstructural and mechanical properties of hot isostatic pressed silicon nitride. Ceramics International, 2018, 44, 14601-14609.	2.3	20
30	Development and characterization of silver and zinc doped bioceramic layer on metallic implant materials for orthopedic application. Ceramics International, 2016, 42, 4924-4931.	2.3	19
31	Influence of structure on the hardness and the toughening mechanism of the sintered 8YSZ/MWCNTs composites. Ceramics International, 2019, 45, 5058-5065.	2.3	19
32	Preparation and morphological investigation on bioactive ion-modified carbonated hydroxyapatite-biopolymer composite ceramics as coatings for orthopaedic implants. Ceramics International, 2022, 48, 760-768.	2.3	19
33	Corrosion and biocompatibility examination of multi-element modified calcium phosphate bioceramic layers. Materials Science and Engineering C, 2019, 95, 381-388.	3.8	17
34	Wear Behavior of ZrO₂-CNF and Si₃N₄-CNT Nanocomposites. Key Engineering Materials, 0, 465, 495-498.	0.4	16
35	Sputtered nanocrystalline ceramic TiC/amorphous C thin films as potential materials for medical applications. Ceramics International, 2015, 41, 5863-5871.	2.3	16
36	The influence of carbon nanotube addition on the phase composition, microstructure and mechanical properties of 316L stainless steel consolidated by spark plasma sintering. Journal of Materials Research and Technology, 2019, 8, 1141-1149.	2.6	15

#	Article	IF	Citations
37	Calcium Phosphate Based Bioactive Ceramic Layers on Implant Materials Preparation, Properties, and Biological Performance. Coatings, 2020, 10, 823.	1.2	15
38	BiFeO3 films on steel substrate by the citrate method. Thin Solid Films, 2009, 517, 2581-2585.	0.8	14
39	Tribology Study of Silicon Nitride-Based Nanocomposites with Carbon Additions. Materials Science Forum, 0, 659, 235-238.	0.3	14
40	Microstructural and mechanical investigation of hydroxyapatiteâ€“zirconia nanocomposites prepared by spark plasma sintering. Journal of the European Ceramic Society, 2013, 33, 2313-2319.	2.8	13
41	Silicon Nitride Composites with Different Nanocarbon Additives. Journal of the Korean Ceramic Society, 2012, 49, 352-362.	1.1	13
42	Influence of Graphene and Graphene Oxide on Properties of Spark Plasma Sintered Si3N4 Ceramic Matrix. Ceramics, 2020, 3, 40-50.	1.0	12
43	Pulse electrodeposition and characterization of non-continuous, multi-element-doped hydroxyapatite bioceramic coatings. Journal of Solid State Electrochemistry, 2018, 22, 555-566.	1.2	11
44	Characterizing the global dispersion of carbon nanotubes in ceramic matrix nanocomposites. Applied Physics Letters, 2008, 93, 201910.	1.5	10
45	Observation of Thermophysical and Tribological Properties of CNT Reinforced Si₃N₄. Key Engineering Materials, 0, 409, 354-357.	0.4	10
46	The effect of milling time on the sintering kinetics of Si3N4 based nanocomposites. Ceramics International, 2010, 36, 2247-2251.	2.3	10
47	Biopolymer-Hydroxyapatite Scaffolds for Advanced Prosthetics. Composite Interfaces, 2009, 16, 191-200.	1.3	9
48	Deposition of Silicon Carbide and Nitrideâ€Based Coatings by Atmospheric Plasma Spraying. International Journal of Applied Ceramic Technology, 2013, 10, 72-78.	1.1	9
49	Complex electrochemical studies on silver-coated metallic implants for orthopaedic application. Journal of Solid State Electrochemistry, 2016, 20, 263-271.	1.2	9
50	The influence of sintering on the dispersion of carbon nanotubes in ceramic matrix composites. Chemical Physics Letters, 2014, 614, 148-150.	1.2	8
51	Examination of Calcium-Phosphates Prepared from Eggshell. Materials Science Forum, 2007, 537-538, 105-112.	0.3	7
52	Electrical Examination of Silicon Nitride â€“ Carbon Composites. Materials Science Forum, 2008, 589, 203-208.	0.3	7
53	Development of CNT-Silicon Nitrides with Improved Mechanical and Electrical Properties. Advances in Science and Technology, 2006, 45, 1723-1728.	0.2	6
54	Examination of the Hydrogen Incorporation into Radio Frequency-Sputtered Hydrogenated SiNx Thin Films. Coatings, 2021, 11, 54.	1.2	6

#	Article	IF	Citations
55	Development of Preparation Processes for CNT/Si₃N₄ Composites. Key Engineering Materials, 2005, 290, 135-141.	0.4	5
56	Nanosized Hexagonal Tungsten Oxide Based Sensors Prepared by Solâ€“Gel Method. Sensor Letters, 2010, 8, 694-697.	0.4	5
57	Correlation between Milling Parameters, Structural and Mechanical Properties of Nanostructured Austenitic Y₂O₃ Strengthened Steels. Materials Science Forum, 0, 729, 409-414.	0.3	4
58	Mechanical Behavior of Bioactive TiC Nanocomposite Thin Films. Materials Science Forum, 2012, 729, 296-301.	0.3	4
59	Low pressure RF plasma modification of the surface of three different nano-carbon materials. Open Chemistry, 2015, 13, .	1.0	4
60	Microstructural and magnetic characteristics of ceramic dispersion strengthened sintered stainless steels after thermal ageing. Fusion Engineering and Design, 2019, 145, 46-53.	1.0	4
61	The role of the attrition milling on the grain size and distribution of the carbon nanotubes in YSZ powders. Boletin De La Sociedad Espanola De Ceramica Y Vidrio, 2019, 58, 126-133.	0.9	4
62	Examination of novel electrosprayed biogenic hydroxyapatite coatings on si3n4 and Si3N4/MWCNT ceramic composite. Processing and Application of Ceramics, 2019, 13, 132-138.	0.4	4
63	Production of Polymer Nanofibers Containing Hydroxyapatite by Electrospinning. Materials Science Forum, 0, 659, 257-262.	0.3	3
64	Examination of milled h-BN addition on sintered Si3N4/h-BN ceramic composites. Processing and Application of Ceramics, 2018, 12, 357-365.	0.4	3
65	Properties of MWCNTs added Si3N4 composites processed from oxidized silicon nitride powders. Processing and Application of Ceramics, 2020, 14, 25-31.	0.4	3
66	Fabrication of Hot Pressed C/Si₃N₄ Nanocomposites. Materials Science Forum, 2005, 473-474, 435-440.	0.3	2
67	Size Effects in Micro- and Nanocarbon Added C/Si₃N₄ Composite Prepared by Hot Pressing. Key Engineering Materials, 2005, 290, 238-241.	0.4	2
68	Preparation and Characterisation of WO₃.1/3H₂O Thin Films. Materials Science Forum, 2007, 537-538, 113-120.	0.3	2
69	Silicon Nitride â€“ Carbon Nanotube Composites. Materials Science Forum, 2007, 554, 123-128.	0.3	2
70	Preparation of Si₃N₄ Composites with Single Wall Carbon Nanotube and Exfoliated Graphite. Materials Science Forum, 0, 589, 409-414.	0.3	2
71	Hexagonal WO₃ Films with Carbon Nanotubes for Sensing Applications. Materials Science Forum, 0, 589, 67-71.	0.3	2
72	Development of Multifunctional Silicon Nitride Based Nanocomposites. Materials Science Forum, 0, 659, 121-126.	0.3	2

#	Article	IF	Citations
73	Electrospinning â€“ A Candidate for Fabrication of Semiconducting Tungsten Oxide Nanofibers. Materials Science Forum, 2010, 659, 215-219.	0.3	2
74	Processing of Nano Hydroxyapatite from Eggshell and Seashell. Materials Science Forum, 0, 659, 159-164.	0.3	2
75	Structural and Mechanical Properties of Milled Si₃N₄/CNTs Composites by Spark Plasma Sintering Method. Materials Science Forum, 0, 729, 31-36.	0.3	2
76	Effect of Si3N4 addition on the morphological and structural properties of the 316L stainless steel for nuclear applications. Resolution and Discovery, 2017, 2, 23-30.	0.9	2
77	Application of sputtered ceramic TiC/a:C thin films with different structures by changing the deposition parameters. International Journal of Applied Ceramic Technology, 2022, 19, 753-761.	1.1	2
78	Examination of C/Si₃N₄ Nanocomposites. Key Engineering Materials, 2004, 264-268, 2301-2304.	0.4	1
79	Comparison of Silicon Nitrides with Carbon Additions Prepared by Two Different Sintering Methods. Key Engineering Materials, 2005, 290, 242-245.	0.4	1
80	Carbon Nanotubes as Ceramic Matrix Reinforcements. Materials Science Forum, 2007, 537-538, 97-104.	0.3	1
81	Biopolymer-Hydroxyapatite Nanocomposite from Eggshell for Prospective Surgical Applications. Materials Science Forum, 2008, 589, 61-65.	0.3	1
82	Infrared Examination of Electrically Conductor Si₃N₄ Nanocomposites. Materials Science Forum, 2008, 589, 209-214.	0.3	1
83	The Effect of Neutron Irradiation on the Mechanical Properties of Advanced Silicon Nitride Nanocomposites. Key Engineering Materials, 2009, 409, 237-243.	0.4	1
84	Impedance Changes and Carbon Stability during the Heat Treatment of Si₃N₄â€“Carbon Composites. Key Engineering Materials, 2009, 409, 365-368.	0.4	1
85	Mechanical and Fractographic Analyses of Monolithic Si₃N₄ Ceramics during Impact Testing. Key Engineering Materials, 0, 409, 338-341.	0.4	1
86	Distribution Patterns of Different Carbon Nanostructures in Silicon Nitride Composites. Journal of Nanoscience and Nanotechnology, 2012, 12, 8775-8778.	0.9	1
87	Preparation and Characterization of Multilayer Graphene by Mechanical Milling and Related Applications for Ceramic Composites. Materials Science Forum, 2012, 729, 252-259.	0.3	1
88	Bone Formation with Nano-Hydroxyapatite from Eggshell. Materials Science Forum, 2012, 729, 25-30.	0.3	1
89	Comparative Corrosion Study on Silver Coated Metallic Implants. Materials Science Forum, 0, 812, 327-332.	0.3	1
90	Thermal Shock Resistance of Si₃N₄/hBN Ceramic Composites. Key Engineering Materials, 2018, 784, 73-78.	0.4	1

#	Article	IF	Citations
91	The Effect of the Chemical Composition to the End-Properties of Ceramic Dispersed Strengthened 316L/Y2O3 Composites. Periodica Polytechnica: Chemical Engineering, 2019, , .	0.5	1
92	Ceramic Matrix Graphene and Carbon Nanotube Composites. , 2021, , 243-259.		1
93	Research on Technical Ceramics and their Industrial Application: Preparation Techniques and Properties of Transparent AlON Ceramics. Acta Materialia Transylvanica, 2019, 2, 7-12.	0.2	1
94	Effect of Carbon and Nitrogen Implantation on the Properties of Silicon Nitrides. Key Engineering Materials, 2005, 290, 160-166.	0.4	0
95	Surface Modification of Silicon Nitride Ceramics. Materials Science Forum, 2005, 473-474, 33-38.	0.3	0
96	Chemical Methods for Scanning Electron Microscope Characterization of Non-Oxide Ceramics and Composites. Key Engineering Materials, 2009, 409, 382-385.	0.4	0
97	Influence of Microstructure on Mechanical Response of Silicon Nitride Ceramic Composites in Nano-, Micro- and Macro-Volume of Material. Key Engineering Materials, 2009, 409, 346-349.	0.4	0
98	The Milling Time Effect on Sintering Kinetics of Silicon Nitride Based Composites. Key Engineering Materials, 2009, 409, 369-372.	0.4	0
99	Electrochemical and Morphological Characterization of Silver Doped Bioceramic Layer on Metallic Implant Materials for Orthopaedic Application. Materials Science Forum, 0, 885, 7-12.	0.3	0
100	Selected Peer-Reviewed Articles from 2009 EMRS Fall Meeting Symposium: Novel Bio and Chemosensing Materials for Health, Safety and Security Applications. Sensor Letters, 2010, 8, 693-693.	0.4	0