

# János Szépványi

## List of Publications by Year in descending order

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95  
papers

1,528  
citations

279487

23  
h-index

395343

33  
g-index

95  
all docs

95  
docs citations

95  
times ranked

1623  
citing authors

#	ARTICLE	IF	CITATIONS
1	Continuous synthesis of carbon-encapsulated magnetic nanoparticles with a minimum production of amorphous carbon. <i>Carbon</i> , 2009, 47, 2040-2048.	5.4	66
2	Particle size distribution and dislocation density determined by high resolution X-ray diffraction in nanocrystalline silicon nitride powders. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2000, 280, 263-269.	2.6	64
3	Production of glass-ceramics from fly ash using arc plasma. <i>Journal of the European Ceramic Society</i> , 2007, 27, 1721-1725.	2.8	54
4	Hollow alumina microspheres prepared by RF thermal plasma. <i>Powder Technology</i> , 2003, 132, 211-215.	2.1	53
5	Thermal plasma synthesis of zinc ferrite nanopowders. <i>Solid State Ionics</i> , 2001, 141-142, 163-168.	1.3	49
6	Formation of boron nitride thin films on $\beta$ -Si <sub>3</sub> N <sub>4</sub> whiskers and $\beta$ -SiC platelets by dip-coating. <i>Journal of the European Ceramic Society</i> , 1998, 18, 1037-1043.	2.8	48
7	Spark plasma sintering of graphene reinforced silicon carbide ceramics. <i>Ceramics International</i> , 2017, 43, 9005-9011.	2.3	43
8	Spark plasma sintering of graphene reinforced hydroxyapatite composites. <i>Ceramics International</i> , 2015, 41, 3647-3652.	2.3	42
9	Synthesis of SiC powder by RF plasma technique. <i>Powder Technology</i> , 2011, 214, 300-305.	2.1	38
10	Palladium Nanoparticle-Graphene Catalysts for Asymmetric Hydrogenation. <i>Catalysis Letters</i> , 2013, 143, 539-546.	1.4	37
11	Chemical structure and mechanical properties of Si-containing a-C:H and a-C thin films and their Cr- and W-containing derivatives. <i>Surface and Coatings Technology</i> , 2011, 206, 630-639.	2.2	34
12	Plasma spheroidization of ceramic particles. <i>Chemical Engineering and Processing: Process Intensification</i> , 2005, 44, 221-224.	1.8	33
13	Atmospheric ageing of nanosized silicon nitride powders. <i>Journal of Materials Chemistry</i> , 2001, 11, 859-863.	6.7	32
14	Efficient synthesis of fullerenes in RF thermal plasma reactor. <i>Chemical Physics Letters</i> , 2003, 378, 434-439.	1.2	31
15	Effects of Precursors and Plasma Parameters on Fullerene Synthesis in RF Thermal Plasma Reactor. <i>Plasma Chemistry and Plasma Processing</i> , 2006, 26, 597-608.	1.1	28
16	Activation of amorphous Cu-M (M = Ti, Zr or Hf) alloy powders made by mechanical alloying. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1997, 226-228, 1074-1078.	2.6	26
17	Simultaneous calcination and spheroidization of gibbsite powders in an RF thermal plasma. <i>Powder Technology</i> , 2000, 110, 169-178.	2.1	26
18	Continuous synthesis of controlled size carbon-encapsulated iron nanoparticles. <i>Materials Research Bulletin</i> , 2011, 46, 2408-2417.	2.7	26

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19	The effect of heat-treatment on the grain-size of nanodisperse plasmathermal silicon nitride powder. <i>Journal of Materials Science</i> , 2000, 35, 3711-3717.	1.7	25
20	Treatment of particulate metallurgical wastes in thermal plasmas. <i>Chemical Engineering and Processing: Process Intensification</i> , 2005, 44, 225-229.	1.8	25
21	Kinetic Modeling of the Decomposition of Carbon Tetrachloride in Thermal Plasma. <i>Plasma Chemistry and Plasma Processing</i> , 2005, 25, 109-119.	1.1	25
22	Synthesis of nanosized zinc ferrites from liquid precursors in RF thermal plasma reactor. <i>Journal of the European Ceramic Society</i> , 2007, 27, 941-945.	2.8	24
23	Synthesis of nanosized ceramic powders in a radiofrequency thermal plasma reactor. <i>Journal of the European Ceramic Society</i> , 2008, 28, 895-899.	2.8	24
24	Spark plasma sintering of Si <sub>3</sub> N <sub>4</sub> /multilayer graphene composites. <i>Open Chemistry</i> , 2015, 13, .	1.0	24
25	Toughening of silicon nitride ceramics by addition of multilayer graphene. <i>Ceramics International</i> , 2019, 45, 4810-4816.	2.3	24
26	Comparative Study on the Decomposition of Chloroform in Thermal and Cold Plasma. <i>Plasma Chemistry and Plasma Processing</i> , 2005, 25, 289-302.	1.1	23
27	Composition and microstructure of nanosized, amorphous and crystalline silicon nitride powders before, during and after densification. <i>Journal of Materials Chemistry</i> , 1996, 6, 1175-1186.	6.7	22
28	Decomposition of Chlorobenzene by Thermal Plasma Processing. <i>Plasma Chemistry and Plasma Processing</i> , 2013, 33, 765-778.	1.1	22
29	The processing of Mg-Ti for hydrogen storage; mechanical milling and plasma synthesis. <i>International Journal of Hydrogen Energy</i> , 2010, 35, 10412-10418.	3.8	20
30	Silicon nitride-based composites reinforced with zirconia nanofibres. <i>Ceramics International</i> , 2017, 43, 16811-16818.	2.3	19
31	Crystallization of an amorphous silicon nitride powder produced in a radiofrequency thermal plasma. <i>Ceramics International</i> , 1999, 25, 711-715.	2.3	18
32	Synthesis of Ni-Zn ferrite nanoparticles in radiofrequency thermal plasma reactor and their use for purification of histidine-tagged proteins. <i>Journal of Nanoparticle Research</i> , 2008, 10, 227-232.	0.8	18
33	Surface modification of multi-wall carbon nanotubes by nitrogen attachment. <i>Diamond and Related Materials</i> , 2011, 20, 965-968.	1.8	17
34	Formation of thin boron nitride coating on multiwall carbon nanotube surfaces. <i>Diamond and Related Materials</i> , 2011, 20, 227-231.	1.8	17
35	Optical emission spectra analysis of thermal plasma treatment of poly(vinyl chloride). <i>Open Chemistry</i> , 2014, 13, .	1.0	17
36	Cu <sub>40</sub> Mg <sub>60</sub> and Cu-MgO powders prepared by ball-milling: characterization and catalytic tests. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 1999, 267, 193-199.	2.6	16

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37	Comparative Study of the Decomposition of CCl <sub>4</sub> in Cold and Thermal Plasma. <i>Plasma Chemistry and Plasma Processing</i> , 2003, 23, 651-664.	1.1	16
38	Nitrogen plasma-based ion implantation of poly(tetrafluoroethylene): Effect of the main parameters on the surface properties. <i>Applied Surface Science</i> , 2010, 256, 6385-6389.	3.1	16
39	Comparative Process Analysis of Fullerene Production by the Arc and the Radio-Frequency Discharge Methods. <i>Journal of Nanoscience and Nanotechnology</i> , 2007, 7, 1357-1369.	0.9	16
40	Reduction of Metallurgical Wastes in an RF Thermal Plasma Reactor. <i>Plasma Chemistry and Plasma Processing</i> , 2001, 21, 547-563.	1.1	15
41	Modelling of Carbon Tetrachloride Decomposition in Oxidative RF Thermal Plasma. <i>Plasma Chemistry and Plasma Processing</i> , 2006, 26, 293-318.	1.1	15
42	Effect of nitrogen plasma immersion ion implantation of polyamide-6 on its sliding properties against steel surface. <i>Wear</i> , 2012, 290-291, 66-73.	1.5	15
43	Decomposition of poly(vinyl chloride) in inductively coupled radiofrequency thermal plasma. <i>Chemical Engineering Journal</i> , 2016, 302, 163-171.	6.6	15
44	Thermal decomposition of a bentonite-polyacrylamide complex. <i>Thermochimica Acta</i> , 1990, 170, 155-166.	1.2	14
45	Synthesis and characterization of spherical amorphous alumo-silicate nanoparticles using RF thermal plasma method. <i>Journal of Non-Crystalline Solids</i> , 2013, 359, 9-14.	1.5	14
46	Densification of nanosized amorphous and crystalline silicon nitride powders. <i>Ceramics International</i> , 1999, 25, 717-721.	2.3	12
47	Heterogeneous Diels-Ålder reaction between cyclopentadiene and different solid carbons. <i>Carbon</i> , 2001, 39, 147-149.	5.4	12
48	Surface characterisation of boron nitride layers on multiwalled carbon nanotubes. <i>Surface and Interface Analysis</i> , 2010, 42, 1148-1151.	0.8	12
49	Synthesis of mullite from sillimanite dissociation through transferred arc plasma torch. <i>International Journal of Mineral Processing</i> , 2011, 99, 54-60.	2.6	12
50	Preparation of fine amorphous silicon nitride powder in the system SiH <sub>4</sub> -Ar-NH <sub>3</sub> . <i>Journal of the European Ceramic Society</i> , 1995, 15, 1071-1077.	2.8	11
51	Surface Characterization of Cu <sup>M</sup> (M = Ti, Zr, or Hf) Alloy Powder Catalysts. <i>Journal of Physical Chemistry B</i> , 1998, 102, 9258-9265.	1.2	11
52	Composition and chemical structure characteristics of CN layers prepared by different plasma assisted techniques. <i>Solid State Ionics</i> , 2001, 141-142, 63-69.	1.3	11
53	Experimental investigation into the synthesis of silicon nitride powder in an RF thermal plasma reactor using a factorial design approach. <i>Journal of Materials Chemistry</i> , 1995, 5, 1227-1232.	6.7	9
54	The use of a thermal energy recycle unit in conjunction with a basin-type solar still for enhanced productivity. <i>Energy</i> , 1997, 22, 83-91.	4.5	9

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55	RF thermal plasma processing of fullerenes. Journal Physics D: Applied Physics, 2006, 39, 320-326.	1.3	9
56	Synthesis of Mullite from Laboratory Waste Silica through Transferred Arc Plasma Processing Method. Materials and Manufacturing Processes, 2011, 26, 813-820.	2.7	9
57	The influence of ageing on consolidation and sinterability of a sub-micron alumina powder. Powder Technology, 2011, 214, 313-321.	2.1	9
58	Deposition of Silicon Carbide and Nitride-Based Coatings by Atmospheric Plasma Spraying. International Journal of Applied Ceramic Technology, 2013, 10, 72-78.	1.1	9
59	Gold nano-particle formation from crystalline AuCN: Comparison of thermal, plasma- and ion-beam activated decomposition. Journal of Solid State Chemistry, 2017, 246, 65-74.	1.4	9
60	Chlorination of a slag produced from red mud. Reactivity of Solids, 1988, 5, 139-153.	0.3	8
61	Comparative sintering study on non-conventional and commercial silicon nitride powders. Journal of Materials Chemistry, 1993, 3, 279-286.	6.7	8
62	Simulation of Motion of Particles in High-speed Elliptical-rotor-type Mixer by Particle Element Method.. Kagaku Kogaku Ronbunshu, 2000, 26, 268-274.	0.1	8
63	Decomposition of halogenated methanes in oxygen-free gas mixtures by the use of a silent electric discharge. Chemosphere, 2003, 50, 9-13.	4.2	8
64	Effect of the solid precursors on the formation of nanosized TiB <sub>x</sub> powders in RF thermal plasma. Ceramics International, 2014, 40, 3925-3931.	2.3	8
65	EXPERIMENTAL AND THEORETICAL ANALYSIS OF MECHANICAL COATING PROCESS OF PARTICLES WITH THE THETA COMPOSER. Chemical Engineering Communications, 2004, 191, 1259-1270.	1.5	7
66	Comparative Study on Decomposition of CFC13 in Thermal and Cold Plasma. Plasma Chemistry and Plasma Processing, 2005, 25, 275-288.	1.1	7
67	X-ray photoelectron spectroscopy studies on solid xanthates. Journal of Electron Spectroscopy and Related Phenomena, 1990, 50, 239-250.	0.8	6
68	Characterization of an element-specific detector for combined gas chromatography-atomic emission detection. Journal of Chromatography A, 1993, 654, 269-277.	1.8	6
69	Synthesis of Mullite by Means of Transferred and Nontransferred Arc Plasma Melting. Materials and Manufacturing Processes, 2010, 25, 909-914.	2.7	6
70	Formation of amorphous carbon on the surface of poly(ethylene terephthalate) by helium plasma based ion implantation. Nuclear Instruments & Methods in Physics Research B, 2011, 269, 1855-1858.	0.6	6
71	New stochastic modelling of mixing in process operations. Chemical Engineering and Processing: Process Intensification, 1999, 38, 1-9.	1.8	5
72	Two-wavelength Raman study of poly(ethylene terephthalate) surfaces modified by helium plasma-based ion implantation. Applied Surface Science, 2012, 263, 423-429.	3.1	5

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73	Surface modification of poly(tetrafluoroethylene) by saddle field fast atom beam source. Surface and Coatings Technology, 2008, 202, 6034-6037.	2.2	4
74	Low pressure RF plasma modification of the surface of three different nano-carbon materials. Open Chemistry, 2015, 13, .	1.0	4
75	Effect of Rotor Shape on Particle Composite Process by a High-Speed Elliptical-Rotor-Type Mixer.. Kagaku Kogaku Ronbunshu, 2001, 27, 141-143.	0.1	4
76	MICROSTRUCTURE AND SINTERING MECHANISM OF SiC CERAMICS REINFORCED WITH NANOSIZED ZrO <sub>2</sub> . European Chemical Bulletin, 2017, 6, 484.	2.7	4
77	Recent data on the kinetics of ethylene chlorination. Reaction Kinetics and Catalysis Letters, 1989, 39, 15-20.	0.6	3
78	Optical Emission Study of RF Thermal Plasma During Fullerene Synthesis. Fullerenes Nanotubes and Carbon Nanostructures, 2005, 13, 215-226.	1.0	3
79	Structure-property and composition-property relationships for poly(ethylene terephthalate) surfaces modified by helium plasma-based ion implantation. Applied Surface Science, 2011, 257, 10815-10820.	3.1	3
80	Optical Emission Spectroscopic Study of the Synthesis of Titanium Boride Nanoparticles in RF Thermal Plasma Reactor. Plasma Chemistry and Plasma Processing, 2017, 37, 1491-1503.	1.1	3
81	Studies on the flotation of a non-ferrous slag. Minerals Engineering, 1988, 1, 127-136.	1.8	2
82	Carbon determination in Si <sub>3</sub> N <sub>4</sub> by slurry atomization ICP-AES. Mikrochimica Acta, 1989, 99, 381-387.	2.5	2
83	Behavior of silica particles of different microstructure on RF thermal plasma treatment. Journal of Materials Science Letters, 2002, 21, 1943-1945.	0.5	2
84	Influence of Carbon Concentration and Rotational Temperature on Fullerene Yield in RF Reactor. Materials Science Forum, 2006, 518, 211-216.	0.3	2
85	CCl <sub>4</sub> Decomposition in RF Thermal Plasma in Inert and Oxidative Environments. Plasma Chemistry and Plasma Processing, 2010, 30, 281-286.	1.1	2
86	Structural and Mechanical Properties of Milled Si <sub>3</sub> N <sub>4</sub> /CNTs Composites by Spark Plasma Sintering Method. Materials Science Forum, 0, 729, 31-36.	0.3	2
87	An Integrated Waste-Free Biomass Utilization System for an Increased Productivity of Biofuel and Bioenergy. , 0, , .		2
88	Optical diagnostics of fullerene synthesis in the RF thermal plasma process. Journal of the Serbian Chemical Society, 2005, 70, 79-85.	0.4	2
89	Effect of Metallic and Non-Metallic Additives on the Synthesis of Fullerenes in Thermal Plasma. Condensed Matter, 2022, 7, 44.	0.8	2
90	TG study on the reduction kinetics of hematite and iron oxide-containing wastes. Journal of Thermal Analysis, 1988, 33, 575-583.	0.7	1

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91	Investigation of the morphology and the active site distribution of Rh-graphimet. Applied Catalysis A: General, 2002, 229, 155-163.	2.2	1
92	Cold flame-sprayed and oil-impregnated porous metallic coatings. Applied Surface Science, 2011, 257, 9532-9538.	3.1	1
93	Thermal Plasma Decomposition of Tetrachloroethylene. Plasma Chemistry and Plasma Processing, 2018, 38, 771-790.	1.1	1
94	Influence of ferrite stabilizing elements and Co on structure and magnetic properties of carbon-encapsulated iron nanoparticles synthesized in thermal plasma jet. Journal of Alloys and Compounds, 2015, 619, 592-600.	2.8	0
95	Influence of the precursor on fullerene synthesis in a RF thermal plasma reactor. Chemical Industry and Chemical Engineering Quarterly, 2006, 12, 246-250.	0.4	0