

Tony Spassov

List of Publications by Year in descending order

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106
papers

2,088
citations

257101

24
h-index

276539

41
g-index

110
all docs

110
docs citations

110
times ranked

1609
citing authors

#	ARTICLE	IF	CITATIONS
1	Facilitated Synthesis of Mg ₂ Ni Based Composites with Attractive Hydrogen Sorption Properties. <i>Materials</i> , 2021, 14, 1936.	1.3	11
2	Porous Sn obtained by selective electrochemical dissolution of melt-spun Zn ₇₀ Sn ₃₀ alloys with lithium and sodium storage properties. <i>Journal of Alloys and Compounds</i> , 2021, 877, 160319.	2.8	3
3	Hydrogen Gas Phase and Electrochemical Hydriding of LaNi ₅ ~xM _x (M = Sn, Co, Al) Alloys. <i>Materials</i> , 2021, 14, 14.	1.3	15
4	Structural and hydrogen storage characterization of nanocrystalline magnesium synthesized by ECAP and catalyzed by different nanotube additives. <i>Reviews on Advanced Materials Science</i> , 2021, 60, 884-893.	1.4	3
5	Microstructural and morphological investigations on Mg-Nb ₂ O ₅ -CNT nanocomposites processed by high-pressure torsion for hydrogen storage applications. <i>International Journal of Hydrogen Energy</i> , 2020, 45, 7917-7928.	3.8	21
6	Microstructural Investigation of Nanocrystalline Hydrogen-Storing Mg-Titanate Nanotube Composites Processed by High-Pressure Torsion. <i>Energies</i> , 2020, 13, 563.	1.6	12
7	Water inside β -cyclodextrin cavity: amount, stability and mechanism of binding. <i>Beilstein Journal of Organic Chemistry</i> , 2019, 15, 1592-1600.	1.3	43
8	Influence of Milling Conditions on the Behavior of AB ₅ -Type Materials as Metal Hydride Electrodes. <i>Journal of Nanomaterials</i> , 2019, 2019, 1-5.	1.5	1
9	Static and Dynamic Thermal Properties of a Pd ₄₀ Ni ₄₀ Si ₂₀ Glassy Alloy. <i>Metals</i> , 2019, 9, 1157.	1.0	0
10	LiMnPO ₄ -olivine deposited on a nanoporous alloy as an additive-free electrode for lithium ion batteries. <i>Dalton Transactions</i> , 2019, 48, 17037-17044.	1.6	2
11	Ibuprofen/ β -CD complexation by controlled annealing of their mechanical mixture. <i>Bulgarian Chemical Communications</i> , 2019, 51, 326-331.	0.2	0
12	Nanoporous metallic structures by de-alloying bulk glass forming Zr-based alloys. <i>Intermetallics</i> , 2018, 98, 148-153.	1.8	7
13	Room-temperature fabrication of core-shell nano-ZnO/pollen grain biocomposite for adsorptive removal of organic dye from water. <i>Applied Surface Science</i> , 2017, 400, 481-491.	3.1	26
14	β -Cyclodextrin: How Effectively Can Its Hydrophobic Cavity Be Hydrated?. <i>Journal of Physical Chemistry B</i> , 2017, 121, 9260-9267.	1.2	20
15	Mesoporous cellular-structured carbons derived from glucose~fructose syrup and their adsorption properties towards acetaminophen. <i>Functional Materials Letters</i> , 2017, 10, 1750080.	0.7	5
16	Thermo-mechanical study of bulk glass forming Zr-Cu-Ni-Al alloys. <i>Journal of Non-Crystalline Solids</i> , 2016, 443, 103-107.	1.5	0
17	Microstructural investigations of carbon foams derived from modified coal-tar pitch. <i>Micron</i> , 2016, 89, 34-42.	1.1	18
18	The mechanism of generating nanoporous Au by de-alloying amorphous alloys. <i>Acta Materialia</i> , 2016, 119, 177-183.	3.8	44

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19	Mechanochemical and chemical activation of lignocellulosic material to prepare powdered activated carbons for adsorption applications. Powder Technology, 2016, 299, 41-50.	2.1	60
20	Influence of Milling Conditions on the Hydriding Properties of Mg-C Nanocomposites. Journal of Nanomaterials, 2015, 2015, 1-6.	1.5	4
21	Selective dissolution of amorphous Zr-Cu-Ni-Al alloys. Corrosion Science, 2015, 94, 350-358.	3.0	21
22	Cyclodextrin-Based Solid-Gas Clathrates. Journal of Agricultural and Food Chemistry, 2015, 63, 6603-6613.	2.4	14
23	Hydrogen spillover on Rh/TiO ₂ : the FTIR study of donated electrons, co-adsorbed CO and H/D exchange. Physical Chemistry Chemical Physics, 2015, 17, 20563-20573.	1.3	37
24	Hydrogen sorption properties of 90Åwt% MgH ₂ -10Åwt% MeSi ₂ (Me=Ti, Cr). Journal of Materials Science, 2014, 49, 2647-2652.	1.7	7
25	Hydrogen storage of nanocrystalline Mg-Ni alloy processed by equal-channel angular pressing and cold rolling. International Journal of Hydrogen Energy, 2014, 39, 9911-9917.	3.8	44
26	High glass forming ability correlated with microstructure and hydrogen storage properties of a Mg-Cu-Ag-Y glass. International Journal of Hydrogen Energy, 2014, 39, 9230-9240.	3.8	21
27	High-pressure DSC study on the hydriding and dehydriding of Mg/C nanocomposites. Journal of Thermal Analysis and Calorimetry, 2014, 116, 265-272.	2.0	3
28	Spectral evidence for hydrogen-induced reversible segregation of CO adsorbed on titania-supported rhodium. Physical Chemistry Chemical Physics, 2014, 16, 13136-13144.	1.3	14
29	Liquid crystal nanocomposites produced by mixtures of hydrogen bonded achiral liquid crystals and functionalized carbon nanotubes. Journal of Physics: Conference Series, 2014, 558, 012024.	0.3	4
30	Phases and properties of nanocomposites of hydrogen-bonded liquid crystals and carbon nanotubes. Physical Review E, 2013, 88, 042503.	0.8	21
31	Selective dissolution of amorphous and nanocrystalline Zr ₂ Ni. Corrosion Science, 2013, 74, 308-313.	3.0	16
32	Microstructural evolution of ball-milled Mg-Ni powder during hydrogen sorption. International Journal of Hydrogen Energy, 2013, 38, 8342-8349.	3.8	27
33	Influence of boron on the hydriding of nanocrystalline Mg ₂ Ni. Intermetallics, 2013, 34, 63-68.	1.8	8
34	Effect of microstructure on the electrocatalytic activity for hydrogen evolution of amorphous and nanocrystalline Zr-Ni alloys. International Journal of Hydrogen Energy, 2012, 37, 10499-10506.	3.8	46
35	Hydrogen storage of melt-spun amorphous Mg ₆₅ Ni ₂₀ Cu ₅ Y ₁₀ alloy deformed by high-pressure torsion. International Journal of Hydrogen Energy, 2012, 37, 5769-5776.	3.8	40
36	Electrocatalytic behavior of Ni-based amorphous alloys for hydrogen evolution. Journal of Materials Science, 2011, 46, 7068-7073.	1.7	21

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37	Synthesis and hydriding/dehydriding properties of Mg ₂ Ni@AB (AB=TiNi or TiFe) nanocomposites. International Journal of Hydrogen Energy, 2011, 36, 7559-7566.	3.8	18
38	Hydroxyapatite Reinforced Coatings with Incorporated Detonationally Generated Nanodiamonds. , 2010, , .		1
39	Study of Organosilicon Plasma Polymer Used in Composite Layers with Biomedical Application. , 2010, , .		3
40	Microstructure and electrochemical hydriding/dehydriding properties of ball-milled TiFe-based alloys. International Journal of Hydrogen Energy, 2010, 35, 6332-6337.	3.8	37
41	Hydrogen sorption properties of ball-milled Mg@C nanocomposites. International Journal of Hydrogen Energy, 2010, 35, 10396-10403.	3.8	31
42	Hydrogen storage in Mg@10at.% LaNi ₅ nanocomposites, synthesized by ball milling at different conditions. Journal of Alloys and Compounds, 2010, 495, 149-153.	2.8	21
43	The effect of high-pressure torsion on the microstructure and hydrogen absorption kinetics of ball-milled Mg ₇₀ Ni ₃₀ . Journal of Alloys and Compounds, 2010, 504, 83-88.	2.8	74
44	Effect of SEM electron beam on the hydrogen desorption of pre-charged amorphous Cu ₃₃ Ti ₆₇ alloys. Materials Characterization, 2009, 60, 26-29.	1.9	2
45	Hydrogen in amorphous TM ₃₃ Zr ₆₇ (TM=Fe, Co, Ni) alloys. Journal of Thermal Analysis and Calorimetry, 2009, 96, 347-351.	2.0	4
46	Kinetics of Mg ₆ Ni nanocrystallization in amorphous Mg ₈₃ Ni ₁₇ . Journal of Non-Crystalline Solids, 2009, 355, 1-5.	1.5	5
47	Mg ₆ Ni formation in rapidly quenched amorphous Mg@Ni alloys. Journal of Alloys and Compounds, 2009, 469, 193-196.	2.8	24
48	Influence of B substitution for Ti and Ni on the electrochemical hydriding of TiNi. Journal of Alloys and Compounds, 2009, 474, 527-530.	2.8	6
49	Mechanochemical synthesis, thermal stability and selective electrochemical dissolution of Cu@Ag solid solutions. Journal of Alloys and Compounds, 2009, 478, 232-236.	2.8	25
50	Electrochemical hydriding/dehydriding of nanocrystalline Mg _{2-3x} Sn _x Ni (x=0, 0.1, 0.3). Journal of Applied Electrochemistry, 2008, 38, 197-202.	1.5	2
51	Influence of alloying and microstructure on the electrochemical hydriding of TiNi-based ternary alloys. Journal of Applied Electrochemistry, 2008, 38, 437-444.	1.5	11
52	Linearly polarized IR-spectroscopy of partially oriented solids as a colloid suspension in nematic host: a tool for spectroscopic and structural elucidation of the embedded chemicals. Journal of Inclusion Phenomena and Macroscopic Chemistry, 2008, 61, 319-333.	1.6	37
53	Synthesis, spectroscopic, thermal and structural elucidation of 5-amino-2-methoxypyridine ester amide of squaric acid ethyl ester: A new material with an infinite pseudo-layered structure and manifested NLO application. Journal of Molecular Structure, 2008, 875, 372-381.	1.8	14
54	Synthesis and hydrogen adsorption in Cu-based coordination framework materials. Scripta Materialia, 2008, 58, 118-121.	2.6	4

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55	Synthesis and study of structural, morphological and electrochemical properties of TiFe _{1-x} Co _x hydrogen storage alloys. Journal of Physics: Conference Series, 2008, 113, 012049.	0.3	0
56	Influence of tin on the electrochemical and gas phase hydrogen sorption in Mg ₂ Sn _x Ni (x=0, 0.1, 0.3). Journal of Alloys and Compounds, 2008, 450, 288-292.	2.8	6
57	METAL HYDRIDE ALLOYS FOR ELECTROCHEMICAL ENERGY SOURCE APPLICATIONS. Materials Research Society Symposia Proceedings, 2007, 1042, 1.	0.1	0
58	Peculiarities of hydroxyapatite/nanodiamond composites as novel implants. Journal of Physics: Conference Series, 2007, 93, 012049.	0.3	10
59	Hydrogen sorption properties of ternary intermetallic Mg(Lr,Rh,Pd)Si compounds. Journal of Alloys and Compounds, 2007, 429, 306-310.	2.8	2
60	Microstructure and hydrogen sorption kinetics of Mg nanopowders with catalyst. Journal of Alloys and Compounds, 2007, 434-435, 725-728.	2.8	20
61	Electrochemical hydrogen insertion in MgLa(Mm)Ni ₅ nanocomposites. Journal of Alloys and Compounds, 2007, 434-435, 760-763.	2.8	6
62	Electrochemical hydriding of amorphous and nanocrystalline TiNi-based alloys. Journal of Alloys and Compounds, 2007, 441, 197-201.	2.8	29
63	Hydriding kinetics of ball-milled nanocrystalline MgH ₂ powders. Journal of Materials Research, 2007, 22, 3144-3151.	1.2	7
64	Electrochemical hydriding of nanocrystalline TiFe alloys. Journal of Applied Electrochemistry, 2007, 37, 871-875.	1.5	7
65	NO Reduction with CO on Copper and Ceria Oxides Supported on Alumina. Catalysis Letters, 2007, 119, 79-86.	1.4	15
66	Microstructural development in nanocrystalline MgH ₂ during H-absorption/desorption cycling. International Journal of Hydrogen Energy, 2007, 32, 2914-2919.	3.8	32
67	Microstructure and hydriding properties of ball-milled Mg ₁₀ at.%MmNi ₅ (Mm=La, Ce-rich mischmetal) composites. Journal of Alloys and Compounds, 2006, 417, 85-91.	2.8	14
68	Influence of Particle Size on the Hydrogen Sorption Properties of Ball-Milled Mg ₂ with Nb ₂ O ₅ as Catalyst. Journal of Metastable and Nanocrystalline Materials, 2005, 24-25, 447-450.	0.1	3
69	Direct hydriding of Mg ₈₇ Al ₇ Ni ₃ Mn ₃ by reactive mechanical milling in hydrogen atmosphere and influence of particle size on the dehydriding reaction. Journal of Alloys and Compounds, 2005, 388, 98-103.	2.8	20
70	Electrochemical properties of nanocrystalline Mg ₂ Ni-type alloys prepared by mechanical alloying. Journal of Alloys and Compounds, 2005, 404-406, 682-686.	2.8	17
71	Hydriding/dehydriding properties of nanocrystalline Mg ₈₇ Ni ₃ Al ₃ M ₇ (M=Ti, Mn, Ce, La) alloys prepared by ball milling. Journal of Alloys and Compounds, 2005, 398, 139-144.	2.8	30
72	Particle size and catalytic effect on the dehydriding of MgH ₂ . Journal of Alloys and Compounds, 2005, 399, 237-241.	2.8	94

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73	Thermodynamic properties and absorption-desorption kinetics of Mg ₈₇ Ni ₁₀ Al ₃ alloy synthesised by reactive ball milling under H ₂ atmosphere. <i>Journal of Alloys and Compounds</i> , 2005, 404-406, 27-30.	2.8	20
74	Hydriding/dehydriding of Mg ₈₇ Ni ₃ Al ₃ Mm ₇ (Mm=La, Ce-rich mischmetal) alloy produced by mechanical milling. <i>Journal of Alloys and Compounds</i> , 2005, 403, 363-367.	2.8	5
75	Nanocrystallization of hydrogen-charged Mg ₇₆ Ni ₁₉ Y ₅ amorphous alloy. <i>Journal of Thermal Analysis and Calorimetry</i> , 2004, 75, 373-378.	2.0	4
76	Mg-Ni-RE nanocrystalline alloys for hydrogen storage. <i>Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2004, 375-377, 794-799.	2.6	139
77	Evolution of amorphous and nanocrystalline phases in mechanically alloyed Mg _{1.9} M _{0.1} Ni (M=Ti,Zr,V). <i>Journal of Alloys and Compounds</i> , 2004, 381, 66-71.	2.8	17
78	Optimisation of the ball-milling and heat treatment parameters for synthesis of amorphous and nanocrystalline Mg ₂ Ni-based alloys. <i>Journal of Alloys and Compounds</i> , 2003, 349, 242-254.	2.8	36
79	Synthesis and hydrogen sorption properties of nanocrystalline Mg _{1.9} M _{0.1} Ni (M=Ti, Zr, V) obtained by mechanical alloying. <i>Journal of Alloys and Compounds</i> , 2003, 356-357, 639-643.	2.8	19
80	High-temperature oxidation of Cu-Ti-based rapidly solidified alloys. <i>International Journal of Materials Research</i> , 2003, 94, 134-138.	0.8	2
81	Nanocrystallization and hydrogen storage in rapidly solidified Mg-Ni-RE alloys. <i>Journal of Alloys and Compounds</i> , 2002, 334, 219-223.	2.8	100
82	Oxidation of rapidly solidified Mg ₈₇ Ni ₁₂ Y ₁ alloy. <i>Journal of Alloys and Compounds</i> , 2002, 336, 163-169.	2.8	9
83	Nanocrystallization in Mg ₈₃ Ni ₁₇ xY _x (x=0, 7.5) amorphous alloys. <i>Journal of Alloys and Compounds</i> , 2002, 345, 123-129.	2.8	27
84	Primary crystallization kinetics in rapidly quenched Mg-based Mg-Ni-Y alloys. <i>Journal of Alloys and Compounds</i> , 2002, 345, 148-154.	2.8	17
85	Kinetic analysis of the L ₁ -L ₂ Hg ₂ phase transition. <i>Magyar Árvad Kémlemeznyek</i> , 2002, 70, 605-614.	1.4	4
86	Nanocrystalline Mg-Ni-Based Hydrogen Storage Alloys Produced by Nanocrystallization. <i>Materials Science Forum</i> , 1999, 307, 197-202.	0.3	11
87	Nanocrystalline Mg-Ni-Based Hydrogen Storage Alloys Produced by Nanocrystallization. <i>Journal of Metastable and Nanocrystalline Materials</i> , 1999, 1, 197-202.	0.1	1
88	Hydriding properties of amorphous Ni-B alloy studied by DSC and thermogravimetry. <i>Thermochimica Acta</i> , 1999, 326, 69-73.	1.2	1
89	Hydrogenation of amorphous and nanocrystalline Mg-based alloys. <i>Journal of Alloys and Compounds</i> , 1999, 287, 243-250.	2.8	173
90	New Gd-Al nanophase obtained by crystallization of Gd ₄ Al ₃ metallic glass. <i>Scripta Materialia</i> , 1999, 12, 609-612.	0.5	3

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91	Thermal stability and hydriding properties of nanocrystalline melt-spun Mg ₆₃ Ni ₃₀ Y ₇ alloy. Journal of Alloys and Compounds, 1998, 279, 279-286.	2.8	130
92	Nanocrystallization of Co ₃₃ Zr ₆₇ Glasses. Journal of Materials Science, 1997, 32, 1483-1486.	1.7	3
93	Oxidation Kinetics of Amorphous, Polycrystalline, and Nanocrystalline Co ₃₃ Zr ₆₇ Alloys. Crystal Research and Technology, 1996, 31, 881-888.	0.6	6
94	Crystallization behaviour of Fe [~] (Nb,Cu) [~] Si [~] B metallic glasses. Journal of Thermal Analysis, 1995, 45, 1557-1563.	0.7	5
95	Hydrogen in Cu _{1-x} Ti and Ni _{1-x} Ti Metallic Glasses. Crystal Research and Technology, 1994, 29, 99-107.	0.6	4
96	Grain-growth in nanocrystalline zirconium-based alloys. Journal of Materials Science, 1993, 28, 2789-2794.	1.7	31
97	A modified Johnson-Mehl-Avrami kinetic model of overall crystallization of Fe _{1-x} Co _{1-x} B metallic glasses. Journal of Alloys and Compounds, 1993, 198, 187-191.	2.8	3
98	Grain Growth Kinetics in Nanocrystalline ZR-Based Alloys. Key Engineering Materials, 1993, 81-83, 249-254.	0.4	1
99	A Study of the Nucleation Kinetics, Linear Growth and the Overall Crystallization Kinetics of Meltspun Pd ₈₀ Si ₂₀ Amorphous alloy. Crystal Research and Technology, 1992, 27, 149-156.	0.6	3
100	Influence of chromium and silicon concentration on crystallization behaviour, electrical resistivity and magnetic properties of (FeCr)BSi amorphous alloys. Solid State Communications, 1991, 80, 89-94.	0.9	3
101	Investigation of the nucleation kinetics and the linear growth rate during the devitrification of Fe-B amorphous alloys with the aid of a thermomagnetic balance. Crystal Research and Technology, 1988, 23, 1225-1230.	0.6	3
102	Influence of copper additions on the crystallization of amorphous Fe _{1-x} B _{1-x} Si alloys. Materials Science and Engineering, 1988, 97, 361-364.	0.1	20
103	Some aspects of the thermal behaviour of In ₂ Se ₃ . Journal of Thermal Analysis, 1987, 32, 115-120.	0.7	3
104	Effects of non-steady state nucleation in the kinetics of crystallization of the amorphous alloy Fe ₈₀ B ₂₀ . Journal of Materials Science, 1987, 22, 3485-3490.	1.7	9
105	Hydrogen Storage, Microstructure and Mechanical Properties of Strained Mg ₆₅ Ni ₂₀ Cu ₅ Y ₁₀ Metallic Glass. Materials Science Forum, 0, 729, 74-79.	0.3	4
106	Hydrogenation of Nanocrystalline Mg ₂ Ni Alloy Prepared by High Energy Ball-Milling Followed by Equal-Channel Angular Pressing or Cold Rolling. Advances in Science and Technology, 0, , .	0.2	2