

# Mohammad Hossein Paydar

## List of Publications by Year in descending order

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83  
papers

2,124  
citations

201385

27  
h-index

264894

42  
g-index

85  
all docs

85  
docs citations

85  
times ranked

1664  
citing authors

#	ARTICLE	IF	CITATIONS
1	Fabrication of nanostructure Al/SiCP composite by accumulative roll-bonding (ARB) process. Journal of Alloys and Compounds, 2010, 492, 231-235.	2.8	184
2	Structural evaluation and mechanical properties of nanostructured Al/B4C composite fabricated by ARB process. Composites Part B: Engineering, 2013, 44, 339-343.	5.9	91
3	Electroless deposition of Niâ€“B4C composite coating on AZ91D magnesium alloy and investigation on its wear and corrosion resistance. Materials & Design, 2010, 31, 3095-3099.	5.1	86
4	The effect of starch addition on solution combustion synthesis of Al2O3â€“ZrO2 nanocomposite powder using urea as fuel. Materials Chemistry and Physics, 2008, 109, 156-163.	2.0	78
5	Microstructural and sliding wear behavior of SiC-particle reinforced copper matrix composites fabricated by sintering and sinter-forging processes. Journal of Materials Research and Technology, 2016, 5, 5-12.	2.6	71
6	Texture evolution and enhanced grain refinement under high-pressure-double-torsion. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 611, 29-36.	2.6	67
7	Effect of SiC particles on the microstructure evolution and mechanical properties of aluminum during ARB process. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 540, 13-23.	2.6	63
8	Fabrication of Al/SiCP composite strips by repeated roll-bonding (RRB) process. Journal of Alloys and Compounds, 2009, 477, 811-816.	2.8	62
9	Study on the effect of presence of TiH2 particles on the roll bonding behavior of aluminum alloy strips. Materials & Design, 2009, 30, 82-86.	5.1	60
10	High-Pressure Double Torsion as a Severe Plastic Deformation Process: Experimental Procedure and Finite Element Modeling. Journal of Materials Engineering and Performance, 2015, 24, 1471-1482.	1.2	59
11	Fabrication of Al7075/Al, two phase material, by recycling Al7075 alloy chips using powder metallurgy route. Journal of Alloys and Compounds, 2009, 487, 395-399.	2.8	57
12	Fabrication of Alâ€“2 vol% Al2O3/SiC hybrid composite via accumulative roll bonding (ARB): An investigation of the microstructure and mechanical properties. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 607, 188-196.	2.6	56
13	High-strength nanostructured Al/B4C composite processed by cross-roll accumulative roll bonding. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 538, 14-19.	2.6	54
14	Enhancement of orientation gradients during simple shear deformation by application of simple compression. Journal of Applied Physics, 2015, 117, .	1.1	51
15	Enhanced microstructural homogeneity in metal-matrix composites developed under high-pressure-double-torsion. Materials Characterization, 2015, 104, 92-100.	1.9	50
16	Microwave assisted solution combustion synthesis of aluminaâ€“zirconia, ZTA, nanocomposite powder. Journal of Alloys and Compounds, 2011, 509, 1192-1196.	2.8	43
17	A modification on ECAP process by incorporating torsional deformation. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2011, 528, 4159-4165.	2.6	41
18	Equal channel angular pressingâ€“forward extrusion (ECAPâ€“FE) consolidation of Al particles. Materials & Design, 2009, 30, 429-432.	5.1	39

#	ARTICLE	IF	CITATIONS
19	Application of forward extrusion-equal channel angular pressing (FE-ECAP) in fabrication of aluminum metal matrix composites. <i>Journal of Alloys and Compounds</i> , 2010, 492, 116-121.	2.8	37
20	A novel process for manufacturing porous 316 L stainless steel with uniform pore distribution. <i>Materials and Design</i> , 2017, 121, 442-449.	3.3	34
21	Ionic conductivity and crystal structure relationships in Ti/Cu substituted Bi <sub>4</sub> V <sub>2</sub> O <sub>11</sub> . <i>Journal of Materials Science</i> , 2004, 39, 1357-1361.	1.7	33
22	Consolidation of commercial pure aluminum powder by torsional-equal channel angular pressing (T-ECAP) at room temperature. <i>Powder Technology</i> , 2012, 219, 1-8.	2.1	32
23	On the achievement of uniform particle distribution in metal matrix composites fabricated by accumulative roll bonding. <i>Materials Letters</i> , 2013, 91, 59-62.	1.3	32
24	Studies on preparation, characterisation and ion conductivity of TI-CU double substituted Bi <sub>4</sub> V <sub>2</sub> O <sub>11</sub> . <i>Journal of the European Ceramic Society</i> , 2001, 21, 1821-1824.	2.8	31
25	Consolidation of Al particles through forward extrusion-equal channel angular pressing (FE-ECAP). <i>Materials Letters</i> , 2008, 62, 3266-3268.	1.3	31
26	Study on the feasibility of the torsion extrusion (TE) process as a severe plastic deformation method for consolidation of Al powder. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2010, 527, 5273-5279.	2.6	31
27	Deformation rate effect on the microstructure and mechanical properties of Al-SiCp composites consolidated by hot extrusion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2012, 556, 23-30.	2.6	31
28	Mechanical Properties of Al/BN Nanocomposites Fabricated by Planetary Ball Milling and Conventional Hot Extrusion. <i>Acta Metallurgica Sinica (English Letters)</i> , 2018, 31, 245-253.	1.5	29
29	Particle distribution in metal matrix composites fabricated by accumulative roll bonding. <i>Materials Science and Technology</i> , 2012, 28, 103-108.	0.8	28
30	Microstructure and mechanical properties of ultrafine-grained aluminum consolidated by high-pressure torsion. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2017, 682, 501-508.	2.6	27
31	The effects of zirconia addition on sintering behavior, mechanical properties and ion conductivity of BICUVOX.1 material. <i>Journal of the European Ceramic Society</i> , 2001, 21, 1825-1829.	2.8	26
32	An upper-bound approach for equal channel angular extrusion with circular cross-section. <i>Journal of Materials Processing Technology</i> , 2008, 198, 48-53.	3.1	24
33	Modeling of electrical conductivity in the proton conductor Ba <sub>0.85</sub> K <sub>0.15</sub> ZrO <sub>3</sub> . <i>Electrochimica Acta</i> , 2015, 165, 443-449.	2.6	24
34	Multi-scale mathematical modeling of methane-fueled SOFCs: Predicting limiting current density using a modified Fick's model. <i>Energy Conversion and Management</i> , 2017, 148, 222-237.	4.4	24
35	Three-dimensional finite element analysis of torsion extrusion (TE) as an SPD process. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2011, 528, 8742-8749.	2.6	21
36	Electroless deposition of Ni-W-P-B4C nanocomposite coating on AZ91D magnesium alloy and investigation on its properties. <i>Vacuum</i> , 2013, 89, 67-70.	1.6	21

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37	Improvement in energy absorption properties of aluminum foams by designing pore-density distribution. <i>Journal of Materials Research and Technology</i> , 2021, 14, 609-619.	2.6	21
38	Stress corrosion cracking of a circulation water heater tubesheet. <i>Engineering Failure Analysis</i> , 2017, 78, 55-66.	1.8	19
39	A model for volume fraction and particle size selection in tri-modal metal matrix composites. <i>Materials Science &amp; Engineering A: Structural Materials: Properties, Microstructure and Processing</i> , 2009, 513-514, 172-175.	2.6	16
40	Multi-scale multi-objective optimization and uncertainty analysis of methane-fed solid oxide fuel cells using Monte Carlo simulations. <i>Energy Conversion and Management</i> , 2017, 153, 175-187.	4.4	16
41	Leveraging in-situ formation of Ni-Fe nanoparticles to promote the catalytic performance of Ruddlesden-Popper based electrode for symmetrical solid oxide fuel cells. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 27149-27155.	3.8	16
42	Effects of Pressure and Number of Turns on Microstructural Homogeneity Developed in High-Pressure Double Torsion. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2017, 48, 1249-1263.	1.1	14
43	Centrifugal Gel Casting: A Combined Process for the Consolidation of Homogenous and Reliable Ceramics. <i>Journal of the American Ceramic Society</i> , 2010, 93, 413-419.	1.9	13
44	Effect of high energy ball milling on the reduction of nickel oxide by zinc powder. <i>Journal of Alloys and Compounds</i> , 2015, 623, 117-120.	2.8	13
45	Mechanical behaviour of multi-layer half-cells of microtubular solid oxide fuel cells fabricated by the co-extrusion process. <i>Ceramics International</i> , 2016, 42, 4194-4203.	2.3	13
46	Title is missing!. <i>Journal of Materials Science</i> , 2002, 37, 2273-2278.	1.7	12
47	Continuous and ultra-fine grained chip production with large strain machining. <i>Journal of Materials Processing Technology</i> , 2014, 214, 1777-1786.	3.1	12
48	Enhanced BaZrO <sub>3</sub> mechanosynthesis by the use of metastable ZrO <sub>2</sub> precursors. <i>Dalton Transactions</i> , 2014, 43, 9324-9333.	1.6	12
49	Wear and corrosion characteristics of electroless Ni-W-P-B <sub>4</sub> C and Ni-W-P-B <sub>4</sub> C coatings. <i>Tribology - Materials, Surfaces and Interfaces</i> , 2014, 8, 146-153.	0.6	12
50	Fabrication and densification enhancement of SiC-particulate-reinforced copper matrix composites prepared via the sinter-forging process. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2014, 21, 934-939.	2.4	12
51	Chemically stable Dy-Y double substituted barium zirconate with high proton conductivity and improved sinterability. <i>Journal of Alloys and Compounds</i> , 2015, 645, 90-99.	2.8	12
52	Effect of sintering parameters (time and temperature) upon the fabrication process of organic binder-based metallic hollow sphere. <i>Powder Metallurgy</i> , 2017, 60, 363-370.	0.9	12
53	Fabrication and Characterization of Core-Shell Density-Graded 316L Stainless Steel Porous Structure. <i>Journal of Materials Engineering and Performance</i> , 2019, 28, 221-230.	1.2	12
54	Evaluating the cathodic polarization of La <sub>0.7</sub> Sr <sub>0.3</sub> MnO <sub>3</sub> -Zr <sub>0.84</sub> xCe <sub>x</sub> Y <sub>0.16</sub> O <sub>1.92</sub> (x=0, 0.42, 0.84) composites for SOFCs. <i>Journal of Materials Science: Materials in Electronics</i> , 2021, 32, 11129-11144.	1.1	12

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55	Morphological and phase evaluation of Al/15 wt.% BN nanocomposite synthesized by planetary ball mill and sintering. <i>Advanced Powder Technology</i> , 2017, 28, 2232-2238.	2.0	11
56	Synthesis and Electrochemical Studies of Novel Cobalt Free (Nd <sub>0.9</sub> La <sub>0.1</sub> ) <sub>2</sub> Sr <sub>0.4</sub> Ni <sub>0.75</sub> Cu <sub>0.25</sub> O <sub>3.8</sub> (NLSNC4) Cathode Material for IT-SOFCs. <i>Fuel Cells</i> , 2019, 19, 578-586.	1.5	11
57	Mechanical properties and deformation behavior of Al/Al7075, two-phase material. <i>Journal of Alloys and Compounds</i> , 2010, 502, 123-126.	2.8	10
58	Enhancing the flash-sinterability of BaZr <sub>0.1</sub> Ce <sub>0.7</sub> Y <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> proton-conducting electrolyte by nickel oxide doping for possible application in SOFCs. <i>International Journal of Hydrogen Energy</i> , 2021, 46, 11115-11126.	3.8	10
59	A new look at oxygen pumping characteristics of BICUVOX.1 solid electrolyte. <i>Journal of Materials Science</i> , 2006, 41, 1953-1957.	1.7	9
60	In situ vibration enhanced pressure slip casting of submicrometer alumina powders. <i>Journal of the European Ceramic Society</i> , 2008, 28, 3059-3064.	2.8	9
61	Electrical behavior of the Ruddlesden-Popper phase, (Nd <sub>0.9</sub> La <sub>0.1</sub> ) <sub>2</sub> Ni <sub>0.75</sub> Cu <sub>0.25</sub> O <sub>4</sub> (NLNC) and NLNC- x wt% Sm <sub>0.2</sub> Ce <sub>0.8</sub> O <sub>1.9</sub> (SDC) (x = 10, 30 and 50), as intermediate-temperature solid oxide fuel cells cathode. <i>Ceramics International</i> , 2018, 44, 1971-1977.	2.3	9
62	Effect of Grain Shape on Texture Formation during Severe Plastic Deformation of Pure Copper. <i>Advanced Engineering Materials</i> , 2018, 20, 1600829.	1.6	8
63	Effect of mechanical activation on aluminothermic reduction of molybdenum trioxide. <i>International Journal of Refractory Metals and Hard Materials</i> , 2019, 82, 245-254.	1.7	8
64	Microstructure and Tensile Behavior of Al7075/Al Composites Consolidated from Machining Chips Using HPT: A Way of Solid-State Recycling. <i>Metals and Materials International</i> , 2020, 26, 1881-1898.	1.8	7
65	Investigation on flash sintering of BaZr <sub>0.1</sub> Ce <sub>0.7</sub> Y <sub>0.2</sub> O <sub>3-<math>\delta</math></sub> compound; using nickel wire as electrode material. <i>Ceramics International</i> , 2020, 46, 2128-2138.	2.3	6
66	New Mathematical Stress Analysis in the Compressive Stage of the High-Pressure Torsion Process. <i>Metals and Materials International</i> , 2021, 27, 2947-2956.	1.8	6
67	Centrifugal Deairing of Concentrated Ceramic Slurries. <i>Journal of the American Ceramic Society</i> , 2009, 92, 2861-2869.	1.9	5
68	Hot-pressing of bimodally distributed magnesium fluoride powder. <i>Infrared Physics and Technology</i> , 2010, 53, 430-433.	1.3	5
69	Optimization of the rheology and sintering behavior of electrolyte and anode pastes to be used in co-extrusion of solid oxide fuel cells. <i>Journal of the European Ceramic Society</i> , 2015, 35, 1227-1237.	2.8	5
70	Influence of autogenous seeding on densification and microstructure in processing of $\gamma$ -alumina nanopowders. <i>Phase Transitions</i> , 2011, 84, 1-14.	0.6	4
71	Bulk Al-Al <sub>3</sub> Zr composite prepared by mechanical alloying and hot extrusion for high-temperature applications. <i>International Journal of Minerals, Metallurgy and Materials</i> , 2017, 24, 937-942.	2.4	4
72	Investigation of Sm <sub>2</sub> O <sub>3</sub> additive on mechanical and electrical properties of Li <sub>2</sub> O-stabilized $\gamma$ -alumina electrolyte. <i>International Journal of Applied Ceramic Technology</i> , 2017, 14, 1183-1189.	1.1	4

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73	Anodizing behavior and electrochemical evaluation of accumulative roll bonded Al and Al-SiC composite. Surface and Coatings Technology, 2021, 408, 126776.	2.2	4
74	Mechanical Properties and Reliability of $\text{Li}_2\text{O}$ -Stabilized $\text{Al}_2\text{O}_3$ -Alumina Ceramics: Effect of Synthesizing Method. International Journal of Applied Ceramic Technology, 2016, 13, 1053-1058.	1.1	3
75	Influence of the Calcination Temperature and Fuel Composition on Synthesis of $\text{BaZr}_{0.8}\text{Y}_{0.2}\text{O}_{3-\delta}$ by Solution Combustion Method for High Proton conductivity. International Journal of Advanced Science and Technology, 2016, 96, 11-20.	0.3	2
76	Compressive behavior of double-layered functionally graded 316L stainless steel foam. International Journal of Materials Research, 2018, 109, 938-943.	0.1	2
77	FABRICATION OF ALUMINA/ZIRCONIA (YSZ) NANOCOMPOSITES BY GELCASTING PROCESS. International Journal of Modern Physics B, 2008, 22, 3237-3246.	1.0	1
78	Effect of pore formers characteristics and melt infiltration parameters on microstructure and electrical properties of $\text{BaCe}_{0.7}\text{Zr}_{0.1}\text{Y}_{0.2}\text{O}_{3-\delta}$ -carbonate composite electrolyte. Journal of Alloys and Compounds, 2018, 735, 172-183.	2.8	1
79	Investigation on the Kinetics and Mechanism of Aluminothermic Reduction of Molybdenum Trioxide: Non-isothermal Kinetics. Transactions of the Indian Institute of Metals, 2020, 73, 2875-2888.	0.7	1
80	Paste backward extrusion process as a suitable method for fabrication of sodium beta-alumina electrolyte closed-end tubes. Advances in Applied Ceramics, 2021, 120, 156-163.	0.6	1
81	Oxygen Pumping Characteristics of Cu-Ti Double Substituted Bismuth Vanadate. Key Engineering Materials, 2002, 206-213, 1235-1238.	0.4	0
82	Fabrication of phosphor bronze/Al two-phase material by recycling phosphor bronze chips using hot extrusion process and investigation of their microstructural and mechanical properties. International Journal of Minerals, Metallurgy and Materials, 2020, 27, 809-817.	2.4	0
83	An investigation on aluminothermic reduction of $\text{MoO}_3$ in domestic microwave oven. Journal of Mining and Metallurgy, Section B: Metallurgy, 2020, 56, 361-369.	0.3	0