

# Jatin Bhatt

## List of Publications by Year in descending order

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63  
papers

1,053  
citations

448610

19  
h-index

536525

29  
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64  
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64  
docs citations

64  
times ranked

966  
citing authors

#	ARTICLE	IF	CITATIONS
1	Microstructure Evolution in Direct Energy Deposited Multilayer Inconel 718. <i>Arabian Journal for Science and Engineering</i> , 2022, 47, 7985-7994.	1.7	7
2	Thermodynamic model to predict bulk metallic glass forming composition in Zr-Cu-Fe-Al system and understanding the role of Dy addition. <i>Physica B: Condensed Matter</i> , 2022, 624, 413416.	1.3	10
3	Composition Design and Nanoindentation Studies on Mg-Ca-Zn Metallic Glass. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2022, 53, 1419-1429.	1.1	5
4	Kinetics and phase formation during crystallization of Hf <sub>64</sub> Cu <sub>18</sub> Ni <sub>18</sub> amorphous alloy. <i>Phase Transitions</i> , 2021, 94, 110-121.	0.6	2
5	Kinetic Approach to Determine the Glass-Forming Ability in Hf-Based Metallic Glasses. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2021, 52, 1169-1173.	1.1	4
6	Corrosion Studies of Hf <sub>64</sub> Cu <sub>18</sub> Ni <sub>18</sub> Metallic Glass in Acidic and Alkaline Media. <i>Transactions of the Indian Institute of Metals</i> , 2021, 74, 949-956.	0.7	2
7	Cu-Zr-Ti-Al metallic glass: Thermodynamic prediction, synthesis, and biocorrosion studies. <i>Physica B: Condensed Matter</i> , 2021, 609, 412918.	1.3	12
8	Study of micro indentation assisted deformation on HPT processed Zr <sub>62</sub> Cu <sub>22</sub> Al <sub>10</sub> Fe <sub>5</sub> Dy <sub>1</sub> bulk metallic glass. <i>Journal of Non-Crystalline Solids</i> , 2021, 566, 120877.	1.5	5
9	Effect of micro-EDM machining parameters on the accuracy of micro hole drilling in Zr-based metallic glass. <i>Engineering Research Express</i> , 2020, 2, 015001.	0.8	8
10	Thermodynamic modelling to optimize glass forming composition in multicomponent Zr-Cu-Co-Al system. <i>Materials Today: Proceedings</i> , 2020, 28, 1239-1244.	0.9	3
11	A new perspective to thermodynamical designing of high entropy bulk metallic glasses (HE-BMGs). <i>Physica B: Condensed Matter</i> , 2020, 595, 412350.	1.3	16
12	Room temperature dynamic indentation response of partially crystallized Zr-Cu metallic glass. <i>Journal of Alloys and Compounds</i> , 2020, 834, 155161.	2.8	8
13	The impact of cutting speed and depth of cut on cutting force during turning of austempered ductile iron. <i>Materials Today: Proceedings</i> , 2019, 19, 663-669.	0.9	9
14	An experimental case study on corrosion characterization of Cu <sub>46</sub> Zr <sub>40</sub> Ti <sub>8.5</sub> Al <sub>5.5</sub> metallic glass. <i>Journal of Non-Crystalline Solids</i> , 2019, 524, 119654.	1.5	7
15	Structural characterization and influence of calcination temperature on luminescence properties of Sr <sub>0.91</sub> Mg <sub>2</sub> Al <sub>5.82</sub> Si <sub>9.18</sub> O <sub>30</sub> : Eu <sup>3+</sup> nanophosphors. <i>Powder Technology</i> , 2019, 354, 591-600.	2.1	7
16	Computational Platform for Manufacturing Bulk Metallic Glasses Based on GFA Parameters. <i>Transactions of the Indian Institute of Metals</i> , 2018, 71, 2731-2734.	0.7	7
17	Applicability of $\Gamma^3$ Parameter on Glass Forming Ability of Zr, Ti, Hf-(Cu-Ni)-based Metallic Glasses. <i>Transactions of the Indian Institute of Metals</i> , 2018, 71, 2839-2843.	0.7	0
18	Thermodynamic calculation and experimental validation of Hf-rich glass forming compositions in Hf-Cu-Ni system. <i>Journal of Non-Crystalline Solids</i> , 2018, 500, 191-195.	1.5	25

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19	Role of polyhedral order in glass to crystal transition dynamics in Zr <sub>60</sub> Cu <sub>10</sub> Al <sub>15</sub> Ni <sub>15</sub> glass forming alloy. Journal of Non-Crystalline Solids, 2017, 471, 256-263.	1.5	2
20	Machinability study of Zr-Cu-Ti metallic glass by micro hole drilling using micro-USM. Journal of Materials Processing Technology, 2017, 240, 42-51.	3.1	42
21	Critical evaluation of glass forming ability criteria. Materials Science and Technology, 2016, 32, 380-400.	0.8	55
22	Identifying non-equiatomic high entropy bulk metallic glass formers through thermodynamic approach: A theoretical perspective. Journal of Non-Crystalline Solids, 2016, 450, 164-173.	1.5	6
23	Interpreting room temperature deformation of Zr <sub>67</sub> Cu <sub>33</sub> metallic glass through Voronoi cluster dynamics. Journal of Non-Crystalline Solids, 2016, 454, 59-69.	1.5	3
24	Crystal structure, energy transfer mechanism and tunable luminescence in Ce <sup>3+</sup> /Dy <sup>3+</sup> co-activated Ca <sub>20</sub> Mg <sub>3</sub> Al <sub>26</sub> Si <sub>3</sub> O <sub>68</sub> nanophosphors. Ceramics International, 2016, 42, 10854-10865.	2.3	31
25	Compressive, tensile and wear behavior of ex situ Al/AlN metal matrix nanocomposites. Journal of Composite Materials, 2015, 49, 1917-1928.	1.2	21
26	Bio-corrosion and Cytotoxicity Studies on Novel Zr <sub>55</sub> Co <sub>30</sub> Ti <sub>15</sub> and Cu <sub>60</sub> Zr <sub>20</sub> Ti <sub>20</sub> Metallic Glasses. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2015, 46, 2422-2430.	1.1	15
27	Structure Property Correlation of Al Based MMC Reinforced with Cu Coated Rice Husk Ash SiO <sub>2</sub> Particles. Transactions of the Indian Institute of Metals, 2015, 68, 201-209.	0.7	10
28	Thermodynamic modeling and composition design for the formation of Zr-Ti-Cu-Ni-Al high entropy bulk metallic glasses. Intermetallics, 2015, 65, 42-50.	1.8	29
29	Icosahedral Cluster Energetics in Zr <sub>60</sub> Cu <sub>10</sub> Al <sub>15</sub> Ni <sub>15</sub> Bulk Metallic Glass and Their Role on Solidification Behavior. Transactions of the Indian Institute of Metals, 2015, 68, 1107-1112.	0.7	1
30	Nanoindentation, Compressive and Tensile Deformation Study of In-Situ Al-AlN Metal Matrix Composites. Transactions of the Indian Institute of Metals, 2015, 68, 291-297.	0.7	7
31	The Effect of Cutting Speed and Depth of Cut on Surface Roughness During Machining of Austempered Ductile Iron. Transactions of the Indian Institute of Metals, 2015, 68, 99-108.	0.7	23
32	Micro and nano indentation studies on Zr <sub>60</sub> Cu <sub>10</sub> Al <sub>15</sub> Ni <sub>15</sub> bulk metallic glass. Materials & Design, 2015, 65, 98-103.	5.1	35
33	Nanoindentation studies of ex situ AlN/Al metal matrix nanocomposites. Journal of Alloys and Compounds, 2014, 615, S392-S396.	2.8	29
34	Thermodynamic Basis for Glass Formation in Cu-Zr Rich Ternary Systems and Their Synthesis by Mechanical Alloying. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2014, 45, 2363-2370.	1.1	11
35	The Wear Behavior of In-Situ Al-AlN Metal Matrix Composites. Transactions of the Indian Institute of Metals, 2014, 67, 841-849.	0.7	15
36	Structural and Photoluminescence properties of nepheline-structure NaAlSiO <sub>4</sub> :Dy <sup>3+</sup> nanophosphors. Journal of Alloys and Compounds, 2014, 609, 100-106.	2.8	34

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37	Study on Quantification of Oxide Phases in Ex-situ AlN/Al Metal Matrix Nanocomposites. Transactions of the Indian Institute of Metals, 2014, 67, 761-767.	0.7	2
38	Nucleation Criteria for the Formation of Aluminum Nitride in Aluminum Matrix by Nitridation. Transactions of the Indian Institute of Metals, 2013, 66, 265-271.	0.7	7
39	Optimization of process parameter for synthesis of silicon quantum dots using low pressure chemical vapour deposition. Bulletin of Materials Science, 2013, 36, 483-490.	0.8	4
40	Structural and luminescence characteristics of Sr <sub>3</sub> Al <sub>8</sub> SiO <sub>17</sub> :Eu <sup>2+</sup> +nanophosphor. Journal of Alloys and Compounds, 2013, 578, 389-393.	2.8	9
41	Corrosion characterization on melt spun Cu <sub>60</sub> Zr <sub>20</sub> Ti <sub>20</sub> metallic glass: An experimental case study. Journal of Non-Crystalline Solids, 2013, 379, 48-53.	1.5	9
42	Characterization of Inoculated Low Carbon Equivalent Iron at Lower Austempering Temperature. Transactions of the Indian Institute of Metals, 2012, 65, 449-458.	0.7	7
43	Prediction of Bulk Metallic Glass Formation in Cu-Zr-Ag-Hf System by Thermodynamic and Topological Modeling. Transactions of the Indian Institute of Metals, 2012, 65, 827-831.	0.7	20
44	Prediction of Glass Forming Ability Using Thermodynamic Parameters. Transactions of the Indian Institute of Metals, 2012, 65, 559-563.	0.7	33
45	Synthesis of nanostructured Al-Mg-SiO <sub>2</sub> metal matrix composites using high-energy ball milling and spark plasma sintering. Journal of Alloys and Compounds, 2012, 536, S35-S40.	2.8	28
46	Thermodynamic criteria for bulk metallic glass formation in Zr rich quaternary system. , 2012, , .		7
47	Determination of Silica Activity Index and XRD, SEM and EDS Studies of Amorphous SiO <sub>2</sub> Extracted from Rice Husk Ash. Transactions of the Indian Institute of Metals, 2012, 65, 63-70.	0.7	91
48	Micro indentation study on Cu <sub>60</sub> Zr <sub>20</sub> Ti <sub>20</sub> metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2012, 550, 160-166.	2.6	16
49	Thermodynamic prediction of bulk metallic glass forming alloys in ternary Zr-Cu-X (X=Ag, Al, Ti, Ga) systems. Journal of Non-Crystalline Solids, 2011, 357, 3495-3499.	1.5	36
50	Synthesis and Characterization of Al-Mg-SiO <sub>2</sub> Particulate Composite Using Amorphous SiO <sub>2</sub> from Rice Husk Ash. Transactions of the Indian Institute of Metals, 2011, 64, 575-581.	0.7	6
51	Synthesis of Al-AlN metal matrix composites by nitrogenation. Transactions of the Indian Institute of Metals, 2011, 64, 111-115.	0.7	4
52	Luminescence properties of Eu <sup>2+</sup> -activated Ca <sub>0.13</sub> Sr <sub>0.87</sub> Al <sub>2</sub> Si <sub>2</sub> O <sub>8</sub> : A bluish green phosphor for solid state lighting. Transactions of the Indian Institute of Metals, 2011, 64, 213-215.	0.7	0
53	On Prediction of Amorphous Phase Forming Compositions in the Iron-Rich Fe-Zr-B Ternary System and Their Synthesis. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2011, 42, 3913-3920.	1.1	11
54	Thermodynamic modeling of Zr-Ti-Cu-Ni-Be bulk metallic glass. Transactions of the Indian Institute of Metals, 2009, 62, 413-416.	0.7	10

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55	Thermodynamic and Topological Modeling and Synthesis of Cu-Zr-Ti-Ni-Based Bulk Metallic Glasses by Mechanical Alloying. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2008, 39, 1543-1551.	1.1	26
56	On the conditions for the synthesis of bulk metallic glasses by mechanical alloying. Journal of Alloys and Compounds, 2008, 459, 135-141.	2.8	28
57	Nanoindentation Studies on Amorphous, Nanoquasicrystalline and Nanocrystalline Zr <sub>80</sub> Pt <sub>20</sub> and Zr <sub>75</sub> Pd <sub>25</sub> Alloys. Journal of Nanoscience and Nanotechnology, 2007, 7, 658-662.	0.9	3
58	Optimization of bulk metallic glass forming compositions in Zr-Cu-Al system by thermodynamic modeling. Intermetallics, 2007, 15, 716-721.	1.8	74
59	Identification of compositions with highest glass forming ability in multicomponent systems by thermodynamic and topological approaches. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 449-451, 211-214.	2.6	20
60	Tribological behaviour of Cu <sub>60</sub> Zr <sub>30</sub> Ti <sub>10</sub> bulk metallic glass. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 458, 290-294.	2.6	47
61	Synthesis of nanocrystalline/quasicrystalline Mg <sub>32</sub> (Al,Zn) <sub>49</sub> by melt spinning and mechanical milling. Journal of Materials Science, 2004, 39, 5155-5159.	1.7	29
62	Identification of Bulk Metallic Forming Compositions through Thermodynamic and Topological Models. Materials Science Forum, 0, 649, 67-73.	0.3	14
63	Thermodynamic Model and Synthesis of Bulk Metallic Glass in Cu-Zr-Ti System by Mechanical Alloying. Materials Science Forum, 0, 675-677, 189-192.	0.3	6