C Suryanarayana

List of Publications by Year in Descending Order

116 papers	12,797 citations	41 h-index	113 g-index
116 ext. papers	13,675 ext. citations	4.9 avg, IF	7.17 L-index

#	Paper	IF	Citations
116	Fabrication of ultrafine powder using processing control agent, and investigation of its effect on microstructure and thermoelectric properties of p-type (Bi, Sb)2Te3 alloys. *Advanced Powder Technology*, **2022**, 33, 103386	4.6	0
115	Mechanical alloying: a critical review. *Materials Research Letters*, **2022**, 10, 619-647	7.4	4
114	Abnormal hot deformation behavior in a metallic-glass-reinforced Al-7075 composite. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2020**, 785, 139212	5.3	5
113	Investigation of the magnetic properties and fracture behavior of NdFeB alloy powders during high-energy ball milling. *Materials Research Express*, **2020**, 7, 096101	1.7	1
112	Synthesis and characterization of vanadium boride powders and their sintered bodies. *Materials Research Express*, **2019**, 6, 096542	1.7	3
111	Synthesis and thermal stability of homogeneous nanostructured Fe3C (cementite). *Journal of Materials Science*, **2018**, 53, 7877-7890	4.3	14
110	Phase formation under non-equilibrium processing conditions: rapid solidification processing and mechanical alloying. *Journal of Materials Science*, **2018**, 53, 13364-13379	4.3	12
109	A novel high-strength Al-based nanocomposite reinforced with Ti-based metallic glass nanoparticles produced by powder metallurgy. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2018**, 734, 34-41	5.3	33
108	Pressure-assisted sintering of AlCuFeNiCo amorphous alloy powders. *Materialia*, **2018**, 2, 157-166	3.2	10
107	Effect of initial composition on phase selection in NiSi powder blends processed by mechanical alloying. *Materials and Manufacturing Processes*, **2018**, 33, 840-848	4.1	7
106	Synthesis and stability of the austenite phase in mechanically alloyed FeCrNi alloys. *Materials Letters*, **2017**, 187, 140-143	3.3	13
105	Synthesis of austenitic stainless steel powder alloys by mechanical alloying. *Journal of Materials Science*, **2017**, 52, 11919-11932	4.3	13
104	Magnesium nanocomposites reinforced with a high volume fraction of SiC particulates. *International Journal of Materials Research*, **2017**, 108, 848-856	0.5	8
103	Synthesis of stable and metastable phases in the Ni Si system by mechanical alloying. *Powder Technology*, **2016**, 302, 8-14	5.2	12
102	Alloyed Steels: Mechanically **2016**, 159-177		2
101	Effect of sintering parameters on microstructure, mechanical properties and electrochemical behavior of Nbr alloy for biomedical applications. *Materials and Design*, **2015**, 83, 344-351	8.1	30
100	Fabrication of nano-grained TiNbr biomaterials using spark plasma sintering. *Materials and Design*, **2015**, 87, 693-700	8.1	86

99	Synthesis of metastable NiGe2 by mechanical alloying. *Materials and Design*, **2015**, 87, 520-526	8.1	20
98	Synthesis of bulk nanocrystalline samarium hexaboride. *Journal of the European Ceramic Society*, **2015**, 35, 4121-4136	6	27
97	Phase evolution during high energy ball milling of immiscible Nb□r alloys. *Advanced Powder Technology*, **2015**, 26, 385-391	4.6	21
96	Reversible transformation of NiGe in mechanically alloyed Ni□e powders. *Journal of Materials Research*, **2015**, 30, 2124-2132	2.5	5
95	Mechanical Alloying for Advanced Materials **2014**, 169-178		1
94	Inverse Hall-Petch Like Mechanical Behaviour in Nanophase Al-Cu-Fe Quasicrystals: A New Phenomenon. *Acta Physica Polonica A*, **2014**, 126, 543-548	0.6	2
93	Mechanochemical synthesis of nanocrystalline metal powders **2013**, 42-68		13
92	Mechanically alloyed nanocomposites. *Progress in Materials Science*, **2013**, 58, 383-502	42.2	519
91	Synthesis of Mg□Al2O3 nanocomposites by mechanical alloying. *Journal of Alloys and Compounds*, **2013**, 563, 165-170	5.7	30
90	Mechanical characterization of mechanically alloyed ultrafine-grained Ti5Si3+40vol% □TiAl composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2013**, 579, 18-25	5.3	8
89	Iron-based bulk metallic glasses. *International Materials Reviews*, **2013**, 58, 131-166	16.1	372
88	Synthesis, characterisation and mechanical properties of SiC reinforced Al based nanocomposites processed by MA and SPS. *Powder Metallurgy*, **2013**, 56, 149-157	1.9	22
87	Grain size softening effect in Al62.5Cu25Fe12.5 nanoquasicrystals. *Applied Physics Letters*, **2013**, 103, 201914	3.4	11
86	Formation of an amorphous phase and its crystallization in the immiscible Nb□r system by mechanical alloying. *Journal of Applied Physics*, **2013**, 114, 153512	2.5	17
85	Synthesis of nanocomposites by mechanical alloying. *Journal of Alloys and Compounds*, **2011**, 509, S229-S234	3.7	100
84	Synthesis of nanocomposites and amorphous alloys by mechanical alloying. *Journal of Materials Science*, **2011**, 46, 6301-6315	4.3	49
83	Mechanically induced fcc phase formation in nanocrystalline hafnium. *Journal of Applied Physics*, **2009**, 105, 063524	2.5	25
82	GLASS FORMATION IN MECHANICALLY ALLOYED Fe-BASED SYSTEMS. *Functional Materials Letters*, **2009**, 02, 147-155	1.2	9

81	Microstructure and mechanical properties of Al–Zr nanocomposite materials. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2009**, 518, 100-107	5.3	56
80	A critical analysis of the glass-forming ability of alloys. *Journal of Non-Crystalline Solids*, **2009**, 355, 355-360	3.9	89
79	Effect of Nb on the glass-forming ability of mechanically alloyed Fe–Ni–Zr–B alloys. *Scripta Materialia*, **2008**, 58, 508-511	5.6	44
78	Low-temperature superplasticity in ultrafine-grained Ti5Si3–TiAl composites. *Scripta Materialia*, **2008**, 59, 455-458	5.6	21
77	Lattice contraction during amorphization by mechanical alloying. *Journal of Applied Physics*, **2008**, 104, 103503	2.5	9
76	Effect of carbon addition on the glass-forming ability of mechanically alloyed Fe-based alloys. *Journal of Applied Physics*, **2008**, 103, 013504	2.5	18
75	Development of new Al-based nanocomposites by mechanical alloying. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 480, 392-396	5.3	35
74	Structure and properties of ultrafine-grained MoSi2+Si3N4 composites synthesized by mechanical alloying. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2008**, 479, 23-30	5.3	37
73	Criterion for predicting the glass-forming ability of alloys. *Applied Physics Letters*, **2007**, 90, 111915	3.4	45
72	Synthesis of Nanostructured Materials by Inert-Gas Condensation Methods **2007**, 47-90		9
71	Mechanical crystallization of Fe-based amorphous alloys. *Journal of Applied Physics*, **2007**, 102, 083544	2.5	34
70	Mechanical Alloying and Severe Plastic Deformation **2007**, 13-1-13-28		
69	Combustion Characteristics of Mechanically Alloyed Ultrafine-Grained Al-Mg Powders. *Advanced Engineering Materials*, **2006**, 8, 563-567	3.5	28
68	Synthesis and characterization of high volume fraction Al–Al2O3 nanocomposite powders by high-energy milling. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2006**, 425, 192-200	5.3	217
67	An unusual phase transformation during mechanical alloying of an Fe-based bulk metallic glass composition. *Journal of Alloys and Compounds*, **2005**, 389, 121-126	5.7	41
66	Phase Transformation in Nanometer-Sized α-Alumina by Mechanical Milling. *Journal of the American Ceramic Society*, **2005**, 88, 780-783	3.8	65
65	Recent Developments in Nanostructured Materials. *Advanced Engineering Materials*, **2005**, 7, 983-992	3.5	61
64	Mechanism of low-temperature β-CuGa2 phase formation in Cu-Ga alloys by mechanical alloying. *Journal of Applied Physics*, **2004**, 96, 6120-6126	2.5	15

63	Isothermal nanocrystallisation behaviour of melt spun Al86Ni9 Mm5 (Mmmischmetal)amorphous alloy. *Materials Science and Technology*, **2003**, 19, 966-972	1.5	10
62	Effect of clustering on the mechanical properties of SiC particulate-reinforced aluminum alloy 2024 metal matrix composites. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2003**, 347, 198-204	5.3	170
61	Homogeneous dispersion of graphite in a 6061 aluminum alloy by ball milling. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2003**, 348, 163-169	5.3	52
60	Extended homogeneity range of intermetallic phases in mechanically alloyed MgAl alloys. *Intermetallics*, **2003**, 11, 373-376	3.5	48
59	Rapid Solidification Processing **2002**, 1-10		0
58	The structure and properties of nanocrystalline materials: Issues and concerns. *Jom*, **2002**, 54, 24-27	2.1	54
57	Mechanical milling of gas-atomized Al-Ni-Mm (Mm = misch metal) alloy powders. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2001**, 32, 821-829	2.3	
56	Mechanical milling of gas-atomized AlNiMm (Mm=misch metal) alloy powders. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **2001**, 32, 821-829	2.3	0
55	The science and technology of mechanical alloying. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2001**, 304-306, 151-158	5.3	438
54	Microstructural Evolution during Mechanical Milling of Rapidly Solidified Al14Ni14Mm1 Alloy Powders. *Journal of Materials Synthesis and Processing*, **2001**, 9, 39-47		5
53	Mechanical alloying and milling. *Progress in Materials Science*, **2001**, 46, 1-184	42.2	6146
52	Size-dependent structure and properties of rapidly solidified aluminum alloy powders. *Scripta Materialia*, **2001**, 45, 1341-1347	5.6	14
51	Microstructure and wear characteristics of rapidly solidified AlPbCu alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **2000**, 287, 59-65	5.3	26
50	Nanocrystalline materials Current research and future directions. *Hyperfine Interactions*, **2000**, 130, 5-44	0.8	278
49	Materials and Process Design through Mechanochemical Routes. *Journal of Materials Synthesis and Processing*, **2000**, 8, 235-244		62
48	Phase selection in a mechanically alloyed Cu2013;InGaSe powder mixture. *Journal of Materials Research*, **1999**, 14, 377-383	2.5	26
47	Structure and properties of rapidly solidified Mg-Al alloys. *Journal of Materials Science*, **1999**, 34, 4311-4320	1.9	28
46	Consolidation of nanocrystalline powders. *Metals and Materials International*, **1999**, 5, 121-128		6

45	Development of a diffusion barrier layer for silicon and carbon in molybdenum□ physical vapor deposition approach. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1999**, 30, 799-806	2.3	3
44	Chapter 4 Mechanical alloying. *Pergamon Materials Series*, **1999**, 49-85		9
43	Synthesis and processing of a Cu-In-Ga-Se sputtering target. *Thin Solid Films*, **1998**, 332, 340-344	2.2	15
42	Synthesis of a nanocrystalline W□5 wt.% Re alloy by mechanical alloying. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1998**, 251, 255-261	5.3	35
41	Numerical Investigation of Mechanical Behaviour of Nanocrystalline Copper. *Powder Metallurgy*, **1998**, 41, 217-220	1.9	36
40	Synthesis of Mg2X (X = Si, Ge, or Sn) intermetallics by mechanical alloying. *Materials Letters*, **1997**, 33, 71-75	3.3	52
39	Mechanical alloying of nb-al powders. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1996**, 27, 41-48	2.3	55
38	Recent advances in the synthesis of alloy phases by mechanical alloying/milling. *Metals and Materials International*, **1996**, 2, 195-209		38
37	Phase Formation during Ball Milling of Ti-Al-B Powders. *Materials Science Forum*, **1996**, 225-227, 471-476	0.4	3
36	A comparison of the sintering characteristics of ball-milled and attritor-milled W□Ni□e heavy alloy. *Journal of Materials Research*, **1996**, 11, 1673-1682	2.5	17
35	Structure of mechanically alloyed Ti-Al-Nb powders. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1995**, 26, 1379-1387	2.3	41
34	Structural evolution in mechanically alloyed Al-Fe powders. *Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science*, **1995**, 26, 1939-1946	2.3	89
33	X-ray powder profile analyses on nanostructured niobium metal powders. *Scripta Materialia*, **1995**, 5, 53-61		20
32	Does a disordered □TiAl phase exist in mechanically alloyed TiAl powders?. *Intermetallics*, **1995**, 3, 153-160	3.5	53
31	Effect of premilling elemental powders on solid solubility extension of magnesium in titanium by mechanical alloying. *Materials Letters*, **1995**, 23, 27-31	3.3	46
30	Nanocrystalline materials. *International Materials Reviews*, **1995**, 40, 41-64	16.1	737
29	Structure and properties of nanocrystalline materials. *Bulletin of Materials Science*, **1994**, 17, 307-346	1.7	169
28	Synthesis of ordered Al3Nb intermetallic by mechanical alloying. *Scripta Metallurgica Et Materialia*, **1994**, 30, 781-785		14

27	Extended solid solutions in Cd?Zn powders by mechanical alloying. *Scripta Metallurgica Et Materialia*, **1994**, 30, 133-137		33
26	Synthesis of metastable L12 cubic phases in (Al,M)3Zr (M = Fe,Ni) powders by mechanical alloying. *Scripta Metallurgica Et Materialia*, **1994**, 31, 1465-1470		13
25	Synthesis of nanocrystalline Al5Fe2 by mechanical alloying. *Scripta Metallurgica Et Materialia*, **1994**, 31, 333-338		20
24	Thermal stability of nanostructured titanium aluminides. *Scripta Materialia*, **1993**, 2, 527-535		13
23	Grain size effects in nanocrystalline materials. *Journal of Materials Research*, **1992**, 7, 2114-2118	2.5	130
22	TiAl formation by mechanical alloying. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1992**, 150, 117-121	5.3	18
21	Milling maps for phase identification during mechanical alloying. *Scripta Metallurgica Et Materialia*, **1992**, 26, 1727-1732		45
20	Production of nanostructure titanium-based alloys by mechanical alloying. *Scripta Materialia*, **1992**, 1, 191-196		16
19	Synthesis of metastable phases in Al-Nb powders by mechanical alloying. *Scripta Metallurgica Et Materialia*, **1992**, 27, 475-480		11
18	Grain Boundaries in Metallic Materials **1992**, 229-237		
17	The structure and mechanical properties of metallic nanocrystals. *Metallurgical and Materials Transactions A - Physical Metallurgy and Materials Science*, **1992**, 23, 1071-1081		107
16	Synthesis, properties and applications of titanium aluminides. *Journal of Materials Science*, **1992**, 27, 5113-5140	4.3	344
15	Structural evolution of mechanically alloyed Ti?Al alloys. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1992**, 158, 93-101	5.3	66
14	Metastable phases in mechanically alloyed Al?Mn powder mixtures. *Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing*, **1991**, 131, 237-242	5.3	29
13	Rapid solidification processing of titanium alloys. *International Materials Reviews*, **1991**, 36, 85-123	16.1	50
12	Synthesis of B2 phase in Ti?Al?Nb alloys by mechanical alloying. *Scripta Metallurgica Et Materialia*, **1991**, 25, 2537-2540		13
11	Nanocrystalline titanium-magnesium alloys through mechanical alloying. *Journal of Materials Research*, **1990**, 5, 1880-1886	2.5	116
10	Nanocrystalline metals for structural applications. *Jom*, **1989**, 41, 12-17	2.1	42

9	Amorphous to Crystalline Phase Transformations. *Materials Science Forum*, **1985**, 3, 173-185	0.4	7
8	Transformation studies and mechanical properties of melt-quenched amorphous titanium-silicon alloys. *Journal of Materials Science*, **1980**, 15, 1993-2000	4.3	30
7	Rapidly Quenched Metals **1980**,		37
6	Rapid quenching from the melt: An annotated bibliography 1958–72. *Journal of Materials Science*, **1973**, 8, 705-753	4.3	118
5	Review: A decade of quenching from the melt. *Journal of Materials Science*, **1971**, 6, 1111-1135	4.3	158
4	Nanocrystalline materials		158
3	Bulk Metallic Glasses		96
2	Synthesis of Nano-Size Hydroxyapatite (HAp) Powders by Mechanical Alloying. *Ceramic Engineering and Science Proceedings*,33-39	0.1	
1	Nanostructured Materials and Nanocomposites by Mechanical Alloying: An Overview. *Metals and Materials International*,1	2.4	4