Alexander Gabay

List of Publications by Year
in descending order

52 papers	1,500 citations	304743 22 h-index	315739 38 g-index
52 all docs	52 docs citations	52 times ranked	1006 citing authors

#	ARTICLE	IF	CITATIONS
1	Microstructure and Hard Magnetic Properties of Sm_{1-<i> x </i>}Zr_{<i> x </i>}(Fe,Co)_{11.3-<i> y </i>}Ti_{0.7}B_{<i> y </i>} Ingots and Thick Melt-Spun Ribbons. IEEE Transactions on Magnetics, 2022, 58, 1-5.	2.1	3
2	Effect of alloying with Sc, Nb and Zr on reduction-diffusion synthesis of magnetically hard Sm(Fe,Co,Ti)12-based monocrystalline powders. Journal of Magnetism and Magnetic Materials, 2022, 541, 168550.	2.3	9
3	High-coercivity ThMn12-type monocrystalline Smâ€“Zrâ€“Feâ€“Coâ€“Ti particles by high-temperature reduction diffusion. Scripta Materialia, 2021, 196, 113760.	5.2	21
4	Isotropic nanocrystalline Sm(Fe,Co)11.3Ti0.7 magnets modified with B and Zr. Journal of Magnetism and Magnetic Materials, 2021, 529, 167867.	2.3	12
5	ThMn12-Type Alloys for Permanent Magnets. Engineering, 2020, 6, 141-147.	6.7	49
6	New anisotropic MnBi permanent magnets by field-annealing of compacted melt-spun alloys modified with Mg and Sb. Journal of Magnetism and Magnetic Materials, 2020, 495, 165860.	2.3	35
7	Development of rare-earth-free bulk magnets with energy product up to 12 MGOe in field annealed Mnâ€“Biâ€“Mgâ€“Inâ€“Sb alloys. Journal of Alloys and Compounds, 2020, 822, 153663.	5.5	14
8	MnBi-based magnets prepared from melt-spun alloys: Effect of Î±Â↔Â² phase transformation during field annealing. Journal of Magnetism and Magnetic Materials, 2020, 516, 167340.	2.3	5
9	Effect of Mg Content in Melt-Spun Mnâ€“Biâ€“Mgâ€“Sbâ€“In Alloys on the Structure and Properties of Field-Annealed Magnets. IEEE Magnetics Letters, 2020, 11, 1-4.	1.1	3
10	Semi-hard magnetic nanocomposites based on out-of-equilibrium Fe2+Î´Nb and Fe2+Î´Ta Laves phases. AIP Advances, 2019, 9, 035143.	1.3	5
11	The Sm-Fe-V based 1:12 bulk magnets. Journal of Alloys and Compounds, 2019, 791, 1122-1127.	5.5	28
12	Effect of Sb substitution on crystal structure, texture and hard magnetic properties of melt-spun MnBi alloys. Journal of Alloys and Compounds, 2019, 792, 77-86.	5.5	18
13	Assessment of off-stoichiometric Zr33-xFe52+xSi15 C14 Laves phase compounds as permanent magnet materials. AIP Advances, 2018, 8, 056204.	1.3	3
14	Synthesis and processing effects on magnetic properties in the Fe5SiB2 system. Journal of Alloys and Compounds, 2018, 731, 995-1000.	5.5	8
15	Preparation of highly pure Î±-MnBi phase via melt-spinning. AIP Advances, 2018, 8, .	1.3	19
16	Recent developments in RFe12-type compounds for permanent magnets. Scripta Materialia, 2018, 154, 284-288.	5.2	71
17	Infiltration of Die-Upset Nd-Fe-B Magnets With Mischmetal Eutectic Alloys. IEEE Magnetics Letters, 2018, 9, 1-5.	1.1	0
18	Current progress and future challenges in rare-earth-free permanent magnets. Acta Materialia, 2018, 158, 118-137.	7.9	351

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19	Manufacturing of Die-Upset Rare Earthâ€“Ironâ€“Boron Magnets With (Ce,La)-Mischmetal. IEEE Transactions on Magnetics, 2017, 53, 1-4.	2.1	6
20	CaO-matrix processing of MnBi alloys for permanent magnets. AIP Advances, 2017, 7, .	1.3	2
21	Mechanochemical synthesis of magnetically hard anisotropic RFe10Si2 powders with R representing combinations of Sm, Ce and Zr. Journal of Magnetism and Magnetic Materials, 2017, 422, 43-48.	2.3	37
22	Low-cost Ce1-<i>x</i>Sm<i>x</i>(Fe, Co, Ti)12 alloys for permanent magnets. AIP Advances, 2016, 6, .	1.3	35
23	Structure and permanent magnet properties of Zr1-R Fe10Si2 alloys with RÂ=ÂY, La, Ce, Pr and Sm. Journal of Alloys and Compounds, 2016, 683, 271-275.	5.5	30
24	ThMn12-type structure and uniaxial magnetic anisotropy in ZrFe10Si2 and Zr1âˆ'Ce Fe10Si2 alloys. Journal of Alloys and Compounds, 2016, 657, 133-137.	5.5	36
25	Application of Mechanochemical Synthesis to Manufacturing of Permanent Magnets. Jom, 2015, 67, 1329-1335.	1.9	22
26	Fabrication of anisotropic MnBi nanoparticles by mechanochemical process. Journal of Alloys and Compounds, 2014, 586, 349-352.	5.5	39
27	Mechanochemical synthesis of LaCo₅ magnetically hard anisotropic powder. Journal Physics D: Applied Physics, 2014, 47, 182001.	2.8	12
28	Preparation of YCo5, PrCo5 and SmCo5 anisotropic high-coercivity powders via mechanochemistry. Journal of Magnetism and Magnetic Materials, 2014, 368, 75-81.	2.3	40
29	Mechanochemical synthesis of fine R2Fe14BHx and R2Fe14B powders with R=Nd or Ndâ€“Dy. Journal of Alloys and Compounds, 2013, 574, 472-476.	5.5	25
30	Mechanochemical Synthesis of (Sm,Pr)$_{2}$(Co,Fe)$_{17}$ Anisotropic Hard Magnetic Powders. IEEE Transactions on Magnetics, 2013, 49, 3225-3228.	2.1	13
31	Anisotropic fully dense MnBi permanent magnet with high energy product and high coercivity at elevated temperatures. Journal Physics D: Applied Physics, 2013, 46, 062001.	2.8	88
32	Internally Segmented Nd-Fe-B/CaF₂Sintered Magnets. IEEE Transactions on Magnetics, 2013, 49, 558-561.	2.1	7
33	Fabrication and Microstructure Evolution of Single Crystalline Sm₂Co₁₇ Nanoparticles Prepared by Mechanochemical Method. Journal of Physical Chemistry C, 2013, 117, 10291-10295.	3.1	28
34	Influence of the type of surfactant and hot compaction on the magnetic properties of SmCo5 nanoflakes. Journal of Applied Physics, 2011, 109, .	2.5	30
35	Dysprosium-saving improvement of coercivity in Nd-Fe-B sintered magnets by Dy2S3 additions. Journal of Applied Physics, 2011, 109, .	2.5	46
36	Rare earthâ€“cobalt hard magnetic nanoparticles and nanoflakes by high-energy milling. Journal of Physics Condensed Matter, 2010, 22, 164213.	1.8	61

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37	Indium substituted PrCo5 sintered magnet: A microstructure view. Journal of Applied Physics, 2010, 107, .	2.5	1
38	Anisotropic SmCo5 nanoflakes by surfactant-assisted high energy ball milling. Journal of Applied Physics, 2010, 107, .	2.5	74
39	Fluoride-added Prâ€"Feâ€"B die-upset magnets with increased electrical resistivity. Journal of Applied Physics, 2009, 105, 07A711.	2.5	30
40	High performance isotropic Smâ€"(Co,Fe)â€"C and Smâ€"(Co,Fe,Mn)â€"C magnets by melt spinning. Journal of Applied Physics, 2008, 103, 07E125.	2.5	7
41	Crystal structure of Zr2Co11 hard magnetic compound. Journal of Alloys and Compounds, 2007, 432, 135-141.	5.5	55
42	Enhanced Mr and (BH)max in anisotropic R2Fe14Bâˆ•Î±â€Fe composite magnets via intergranular magnetostatic coupling. Journal of Applied Physics, 2006, 99, 08B506.	2.5	17
43	Crystallization behavior in two-phase PrFeB mechanically milled powder. , 2005, , .		0
44	Microstructure of nanocomposite R-Fe-B die-upset magnets (R=Pr,Nd) produced from mechanically milled powders. IEEE Transactions on Magnetics, 2005, 41, 3883-3885.	2.1	3
45	Microstructure of nanocomposite R-Fe-B die-upset magnets (R=Pr, Nd) produced from mechanically milled powders. , 2005, , .		0
46	Bulk magnetic hardening in Cu-added (SmCo/sub 5/)/sub 1-x/(Sm/sub 2/Co/sub 17/)/sub x/ cast alloys. , 2005, , .		0
47	Observation of the lamellar phase in a Zr-free Sm(Co0.45Fe0.15Cu0.4)5 alloy. Applied Physics Letters, 2005, 87, 141910.	3.3	8
48	Fully Dense Sm-Co-Fe-Cu and Sm-Co-Fe-Ga Nanocomposite Magnets by Hot Compaction. IEEE Transactions on Magnetics, 2004, 40, 2916-2918.	2.1	7
49	Temperature dependence of coercivity and magnetization reversal mechanism in Sm(Co/sub bal/Fe/sub) Tj ETQq1 1 0.784314 rgBT /Ove	2.1	22
50	Bulk-hardened magnets based on Y2Co17. Journal of Applied Physics, 2001, 90, 882-890.	2.5	6
51	Anomalous temperature dependence of coercivity and reversal mechanism in bulk-hardened rare earth-cobalt magnets. Applied Physics Letters, 2001, 78, 1595-1597.	3.3	48
52	Prâ€"Zrâ€"Co precipitation-hardened magnet. Applied Physics Letters, 2000, 76, 3786-3788.	3.3	11