Michael B Kerber

List of Publications by Year
in descending order

35 papers	1,127 citations	430874 18 h-index	395702 33 g-index
36 all docs	36 docs citations	36 times ranked	1145 citing authors

#	Article	IF	Citations
1	Lattice defect investigation of ECAP-Cu by means of X-ray line profile analysis, calorimetry and electrical resistometry. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2005, 410-411, 169-173.	5.6	159
2	The formation of supersaturated solid solutions in Feâ€“Cu alloys deformed by high-pressure torsion. Acta Materialia, 2012, 60, 860-871.	7.9	144
3	High-pressure torsion, a new processing route for thermoelectrics of high ZTs by means of severe plastic deformation. Acta Materialia, 2012, 60, 2146-2157.	7.9	117
4	Multifilled nanocrystalline p-type didymium â€“ Skutterudites with ZT>1.2. Intermetallics, 2010, 18, 2435-2444.	3.9	93
5	MmFe4Sb12- and CoSb3-based nano-skutterudites prepared by ball milling: Kinetics of formation and transport properties. Journal of Alloys and Compounds, 2009, 481, 106-115.	5.5	64
6	Microstructural investigation of the annealing behaviour of high-pressure torsion (HPT) deformed copper. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2007, 462, 139-143.	5.6	50
7	Impact of high pressure torsion on the microstructure and physical properties of Pr0.67Fe3CoSb12, Pr0.71Fe3.5Ni0.5Sb12, and Ba0.06Co4Sb12. Journal of Alloys and Compounds, 2010, 494, 78-83.	5.5	50
8	Thermoelectric performance of mischmetal skutterudites MmyFe4â^'xCoxSb12 at elevated temperatures. Journal of Alloys and Compounds, 2010, 490, 19-25.	5.5	49
9	Half-Heusler alloys: Enhancement of ZT after severe plastic deformation (ultra-low thermal) Tj ETQq1 1 0.784314 rgBT /Overlock 10 Tf 5	7.9	44
10	X-ray line profile analysisâ€”An ideal tool to quantify structural parameters of nanomaterials. Jom, 2011, 63, 61-70.	1.9	42
11	Activation Enthalpies of Deformation-Induced Lattice Defects in Severe Plastic Deformation Nanometals Measured by Differential Scanning Calorimetry. Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science, 2010, 41, 810-815.	2.2	41
12	Deformation-induced grain growth and twinning in nanocrystalline palladium thin films. Beilstein Journal of Nanotechnology, 2013, 4, 554-566.	2.8	27
13	Direct SPD-processing to achieve high-ZT skutterudites. Acta Materialia, 2018, 159, 352-363.	7.9	27
14	Determination of lamella thickness distributions in isotactic polypropylene by X-ray line profile analysis. Polymer, 2010, 51, 4195-4199.	3.8	25
15	Structure-dynamics relationships in cryogenically deformed bulk metallic glass. Nature Communications, 2022, 13, 127.	12.8	24
16	Dislocation Movement Induced by Molecular Relaxations in Isotactic Polypropylene. Macromolecules, 2017, 50, 6362-6368.	4.8	23
17	Sustainable and simple processing technique for n-type skutterudites with high ZT and their analysis. Acta Materialia, 2019, 173, 9-19.	7.9	22
18	The role of dislocations in Î³-iPP under plastic deformation investigated by X-ray line profile analysis. Mechanics of Materials, 2013, 67, 126-132.	3.2	20

#	Article	IF	Citations
19	Following the deformation behavior of nanocrystalline Pd films on polyimide substrates using in situ synchrotron XRD. Mechanics of Materials, 2013, 67, 65-73.	3.2	14
20	Strengthening during heat treatment of HPT processed copper and nickel. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2019, 742, 124-131.	5.6	14
21	The role of dislocations for the plastic deformation of semicrystalline polymers as investigated by multireflection Xâ€ray line profile analysis. Journal of Applied Polymer Science, 2012, 125, 4150-4154.	2.6	13
22	Structure and texture of electrochemically prepared nickel layers with co-deposited zirconia nanoparticles. Surface and Coatings Technology, 2009, 203, 1438-1443.	4.8	10
23	In-Situ Synchrotron Profile Analysis after High-Pressure Torsion Deformation. Crystals, 2019, 9, 232.	2.2	10
24	Synchrotron X-ray line-profile analysis experiments for the in-situ microstructural characterisation of SPD nanometals during tensile deformation. International Journal of Materials Research, 2009, 100, 770-774.	0.3	9
25	Nature and density of lattice defects in ball milled nanostructured copper. Mechanics of Materials, 2013, 67, 59-64.	3.2	8
26	Impact of Ball Milling and High-Pressure Torsion on the Microstructure and Thermoelectric Properties of p- and n-Type Sb-Based Skutterudites. Materials Science Forum, 0, 667-669, 1089-1094.	0.3	5
27	Phase transformations of severely plastically deformed Tiâ€“Niâ€“Pd high-temperature shape memory alloys. Functional Materials Letters, 2017, 10, 1740012.	1.2	5
28	Plasticity and X-ray Line Profile Analysis of the semicrystalline polymer poly(3-hydroxybutyrate). Journal of Physics: Conference Series, 2010, 240, 012146.	0.4	4
29	Plastic yielding of glass in highâ€pressure torsion apparatus. International Journal of Applied Glass Science, 2019, 10, 17-26.	2.0	3
30	Nonequilibrium structural states in nickel after large plastic deformation. Letters on Materials, 2014, 4, 100-103.	0.7	3
31	Changes of Thermoelectric Properties and Hardness After HPT Processing of Micro- and Nanostructured Skutterudites. NATO Science for Peace and Security Series B: Physics and Biophysics, 2013, , 81-91.	0.3	3
32	Head-on collision of ultrarelativistic charges. Classical and Quantum Gravity, 2004, 21, S1-S10.	4.0	2
33	The impact of high hydrostatic pressure maintenance after high-pressure torsion on phenomena during high hydrostatic pressure annealing. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2022, 840, 142874.	5.6	2
34	In Situ X-Ray Synchrotron Profile Analysis During High Pressure Torsion of Ti. Minerals, Metals and Materials Series, 2017, , 645-651.	0.4	1
35	Nanocrystallization and Dissolution of Immiscible Powder Alloys Using High Pressure Torsion. Materials Science Forum, 2010, 667-669, 151-156.	0.3	0