Niels van Dijk

List of Publications by Year
in descending order

31 papers	957 citations	471509 17 h-index	434195 31 g-index
31 all docs	31 docs citations	31 times ranked	919 citing authors

#	Article	IF	Citations
1	Taming the Firstâ€Order Transition in Giant Magnetocaloric Materials. Advanced Materials, 2014, 26, 2671-2675.	21.0	238
2	Self-healing behaviour in man-made engineering materials: bioinspired but taking into account their intrinsic character. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2009, 367, 1689-1704.	3.4	99
3	Selfâ€Healing Phenomena in Metals. Advanced Materials Interfaces, 2018, 5, 1800226.	3.7	64
4	Self-healing of deformation damage in underaged Alâ€“Cuâ€“Mg alloys. Scripta Materialia, 2008, 58, 719-722.	5.2	49
5	Real-time martensitic transformation kinetics in maraging steel under high magnetic fields. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2010, 527, 5241-5245.	5.6	46
6	Structural and magnetocaloric properties of (Mn,Fe)2(P,Si) materials with added nitrogen. Journal of Alloys and Compounds, 2016, 670, 123-127.	5.5	39
7	Defect-induced Au precipitation in Feâ€“Au and Feâ€“Auâ€“Bâ€“N alloys studied by in situ small-angle neutron scattering. Acta Materialia, 2013, 61, 7009-7019.	7.9	37
8	Self Healing of Creep Damage by Gold Precipitation in Iron Alloys. Advanced Engineering Materials, 2015, 17, 598-603.	3.5	35
9	Autonomous filling of creep cavities in Fe-Au alloys studied by synchrotron X-ray nano-tomography. Acta Materialia, 2016, 121, 352-364.	7.9	33
10	Tuning the magnetoelastic transition in (Mn,Fe)2(P,Si) by B, C, and N doping. Scripta Materialia, 2016, 124, 129-132.	5.2	32
11	The mechanical stability of retained austenite in low-alloyed TRIP steel under shear loading. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2014, 594, 125-134.	5.6	30
12	Reversible low-field magnetocaloric effect in Ni-Mn-In-based Heusler alloys. Physical Review Materials, 2019, 3, .	2.4	30
13	Combined effect of annealing temperature and vanadium substitution for mangetocaloric Mn1.2-V Fe0.75P0.5Si0.5 alloys. Journal of Alloys and Compounds, 2019, 803, 671-677.	5.5	27
14	Self healing of creep damage in iron-based alloys by supersaturated tungsten. Acta Materialia, 2019, 166, 531-542.	7.9	22
15	Self healing of radiation-induced damage in Feâ€“Au and Feâ€“Cu alloys: Combining positron annihilation spectroscopy with TEM and ab initio calculations. Journal of Alloys and Compounds, 2020, 817, 152765.	5.5	20
16	Landau model evaluation of the magnetic entropy change in magnetocaloric materials. Journal of Magnetism and Magnetic Materials, 2021, 529, 167871.	2.3	20
17	A Review of Self-healing Metals: Fundamentals, Design Principles and Performance. Acta Metallurgica Sinica (English Letters), 2020, 33, 1167-1179.	2.9	19
18	Preferential Au precipitation at deformation-induced defects in Feâ€“Au and Feâ€“Auâ€“Bâ€“N alloys. Journal of Alloys and Compounds, 2014, 584, 425-429.	5.5	16

#	Article	IF	Citations
19	A novel 3D mixed-mode multigrain model with efficient implementation of solute drag applied to austenite-ferrite phase transformations in Fe-C-Mn alloys. Acta Materialia, 2021, 212, 116897.	7.9	15
20	Reduced Hysteresis and Enhanced Giant Magnetocaloric Effect in B-Doped all- d -Metal <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Ni</mml:mi></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Co</mml:mi></mml:math> - <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" display="inline" overflow="scroll"><mml:mi>Mn</	3.8	14
21	Design of Reversible Low-Field Magnetocaloric Effect at Room Temperature in Hexagonal MnMX Ferromagnets. Physical Review Applied, 2020, 13, .	3.8	13
22	The antiferromagnetic to ferrimagnetic phase transition in Mn2Sb1-Bi compounds. Journal of Alloys and Compounds, 2021, 866, 158963.	5.5	12
23	Enhanced reversibility of the magnetoelastic transition in (Mn,Fe)2(P,Si) alloys via minimizing the transition-induced elastic strain energy. Journal of Materials Science and Technology, 2022, 103, 165-176.	10.7	11
24	Impact of F and S doping on (Mn,Fe)2(P,Si) giant magnetocaloric materials. Acta Materialia, 2022, 234, 118057.	7.9	9
25	Switching the magnetostructural coupling in MnCoGe-based magnetocaloric materials. Physical Review Materials, 2020, 4, .	2.4	8
26	Effects of Milling Conditions on Nano-scale MnFe(P,Si) Particles by Surfactant-assisted High-energy Ball Milling. Physics Procedia, 2015, 75, 1104-1111.	1.2	5
27	(Fe,Co)2(P,Si) rare-earth free permanent magnets: From macroscopic single crystals to submicron-sized particles. Acta Materialia, 2021, 221, 117388.	7.9	5
28	Positron annihilation study of ageing precipitation in deformed Feâ€“Cuâ€“Bâ€“Nâ€“C. Philosophical Magazine, 2013, 93, 4182-4197.	1.6	4
29	Multi length scale characterization of austenite in TRIP steels using high-energy X-ray diffraction. Powder Diffraction, 2013, 28, 77-80.	0.2	3
30	Crystal structures and magnetic properties of Fe1.93-Co P1-Si compounds. Journal of Alloys and Compounds, 2022, 903, 163770.	5.5	1
31	Nonlinear influence of excess Mn on the magnetoelastic transition in (Mn,Cr)2Sb. Journal of Alloys and Compounds, 2022, 903, 164011.	5.5	1