

# Reiner Kirchheim

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8386569/publications.pdf>

Version: 2024-02-01

20  
papers

1,827  
citations

516710

16  
h-index

752698

20  
g-index

20  
all docs

20  
docs citations

20  
times ranked

1525  
citing authors

#	ARTICLE	IF	CITATIONS
1	Grain coarsening inhibited by solute segregation. <i>Acta Materialia</i> , 2002, 50, 413-419.	7.9	514
2	Reducing grain boundary, dislocation line and vacancy formation energies by solute segregationII. Experimental evidence and consequences. <i>Acta Materialia</i> , 2007, 55, 5139-5148.	7.9	284
3	Revisiting hydrogen embrittlement models and hydrogen-induced homogeneous nucleation of dislocations. <i>Scripta Materialia</i> , 2010, 62, 67-70.	5.2	152
4	Solid solution softening and hardening by mobile solute atoms with special focus on hydrogen. <i>Scripta Materialia</i> , 2012, 67, 767-770.	5.2	125
5	Cold-drawn pearlitic steel wires. <i>Progress in Materials Science</i> , 2016, 82, 405-444.	32.8	113
6	Crack and blister initiation and growth in purified iron due to hydrogen loading. <i>Acta Materialia</i> , 2016, 115, 24-34.	7.9	89
7	On the solute-defect interaction in the framework of a defactant concept. <i>International Journal of Materials Research</i> , 2009, 100, 483-487.	0.3	88
8	Hydrogen-induced defects in bulk niobium. <i>Physical Review B</i> , 2004, 69, .	3.2	77
9	Chemomechanical effects on the separation of interfaces occurring during fracture with emphasis on the hydrogen-iron and hydrogen-nickel system. <i>Acta Materialia</i> , 2015, 99, 87-98.	7.9	75
10	Bulk Diffusion-Controlled Thermal Desorption Spectroscopy with Examples for Hydrogen in Iron. <i>Metallurgical and Materials Transactions A: Physical Metallurgy and Materials Science</i> , 2016, 47, 672-696.	2.2	58
11	Hydrogen diffusivities as a measure of relative dislocation densities in palladium and increase of the density by plastic deformation in the presence of dissolved hydrogen. <i>Acta Materialia</i> , 2015, 82, 266-274.	7.9	56
12	Comparison between kinetic and thermodynamic effects on grain growth. <i>Thin Solid Films</i> , 2004, 466, 108-113.	1.8	47
13	Segregation of Oxygen at Metal/Oxide-Interfaces. <i>Journal of Materials Science</i> , 1997, 5, 231-243.	1.2	45
14	Incubation time for flash sintering as caused by internal reactions, exemplified for yttria stabilized zirconia. <i>Acta Materialia</i> , 2019, 175, 361-375.	7.9	31
15	On the mixed ionic and electronic conductivity in polarized yttria stabilized zirconia. <i>Solid State Ionics</i> , 2018, 320, 239-258.	2.7	25
16	Changing the interfacial composition of carbide precipitates in metals and its effect on hydrogen trapping. <i>Scripta Materialia</i> , 2019, 160, 62-65.	5.2	24
17	Hydrogen-induced accelerated grain growth in vanadium. <i>Acta Materialia</i> , 2018, 155, 262-267.	7.9	11
18	Lattice discontinuities affecting the generation and annihilation of diffusible hydrogen and vice versa. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2017, 375, 20160403.	3.4	6

#	ARTICLE	IF	CITATIONS
19	Simple geometrical aspects of grain growth in the framework of Herring's analysis and a disclination model. <i>Acta Materialia</i> , 2019, 173, 327-331.	7.9	4
20	Anisotropic grain growth in iron-carbon films at high electric current densities. <i>Scripta Materialia</i> , 2020, 178, 18-23.	5.2	3