

Gerhard Hobler

List of Publications by Citations

Source: <https://exaly.com/author-pdf/3420503/gerhard-hobler-publications-by-citations.pdf>

Version: 2024-04-23

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

95
papers

1,463
citations

22
h-index

35
g-index

97
ext. papers

1,580
ext. citations

2.1
avg. IF

4.46
L-index

#	Paper	IF	Citations
95	Monte Carlo simulation of two-dimensional implanted dopant distributions at mask edges. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995 , 96, 155-162	1.2	103
94	Fundamentals of Focused Ion Beam Nanostructural Processing: Below, At, and Above the Surface. <i>MRS Bulletin</i> , 2007 , 32, 424-432	3.2	79
93	Status and open problems in modeling of as-implanted damage in silicon. <i>Materials Science in Semiconductor Processing</i> , 2003 , 6, 1-14	4.3	59
92	Large fraction of crystal directions leads to ion channeling. <i>Physical Review B</i> , 2016 , 94,	3.3	58
91	Modeling of the ion mass effect on transient enhanced diffusion: Deviation from the $\frac{1}{4}$ model. <i>Applied Physics Letters</i> , 1998 , 73, 1421-1423	3.4	54
90	Critical angles and low-energy limits to ion channeling in silicon. <i>Radiation Effects and Defects in Solids</i> , 1996 , 139, 21-85	0.9	53
89	Full three-dimensional simulation of focused ion beam micro/nanofabrication. <i>Nanotechnology</i> , 2007 , 18, 245303	3.4	52
88	Current density profile extraction of focused ion beams based on atomic force microscopy contour profiling of nanodots. <i>Journal of Applied Physics</i> , 2002 , 92, 4037-4042	2.5	51
87	Round robin computer simulation of ion transmission through crystalline layers. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995 , 102, 183-197	1.2	49
86	Simulation of ion beam induced micro/nano fabrication. <i>Journal of Micromechanics and Microengineering</i> , 2007 , 17, 1178-1183	2	42
85	On the useful range of application of molecular dynamics simulations in the recoil interaction approximation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2001 , 180, 203-208	1.2	41
84	. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 1988 , 7, 174-180	2.5	40
83	Boron channeling implantations in silicon: Modeling of electronic stopping and damage accumulation. <i>Journal of Applied Physics</i> , 1995 , 77, 3697-3703	2.5	38
82	Comparison of Transmission Electron Microscope Cross Sections of Amorphous Regions in Ion Implanted Silicon with Point-Defect Density Calculations. <i>Journal of the Electrochemical Society</i> , 1992 , 139, 3631-3638	3.9	38
81	Monte Carlo simulations of defect recovery within a 10 keV collision cascade in 3C-BiC. <i>Journal of Applied Physics</i> , 2007 , 102, 103508	2.5	34
80	Computer Simulation of Oxygen Precipitation in Czochralski-Grown Silicon during HI-LO-HI Anneals. <i>Journal of the Electrochemical Society</i> , 1996 , 143, 995-1001	3.9	30
79	. <i>IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems</i> , 1989 , 8, 450-459	2.5	29

78	Two-dimensional modeling of ion implantation with spatial moments. <i>Solid-State Electronics</i> , 1987 , 30, 445-455	1.7	29
77	FIBSIM dynamic Monte Carlo simulation of compositional and topography changes caused by focused ion beam milling. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2001 , 180, 125-129	1.2	25
76	A model for oxygen precipitation in silicon including bulk stacking fault growth. <i>Journal of Applied Physics</i> , 1995 , 78, 6469-6476	2.5	24
75	Assessment of approximations for efficient topography simulation of ion beam processes: 10keV Ar on Si. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009 , 267, 2987-2990	1.2	22
74	Round robin computer simulation of ion transmission through crystalline layers 1995 , 102, 183-183		22
73	Level set approach for the simulation of focused ion beam processing on the micro/nano scale. <i>Nanotechnology</i> , 2007 , 18, 265307	3.4	21
72	Defect characterization of low-energy recoil events in silicon using classical molecular dynamics simulation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003 , 202, 114-119	1.2	20
71	Probing the limitations of Sigmund's model of spatially resolved sputtering using Monte Carlo simulations. <i>Physical Review B</i> , 2016 , 93,	3.3	19
70	Amorphous pocket model for silicon based on molecular dynamics simulations. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2003 , 206, 81-84	1.2	19
69	Simulation-based approach for the accurate fabrication of blazed grating structures by FIB. <i>Optics Express</i> , 2007 , 15, 9444-9	3.3	18
68	Range of ion-implanted rare earth elements in Si and SiO ₂ . <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2001 , 81, 83-85	3.1	18
67	Simulation of topography evolution and damage formation during TEM sample preparation using focused ion beams. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2001 , 175-177, 102-107	1.2	17
66	Determination of silicon point defect parameters and reaction barrier energies from gold diffusion experiments. <i>Journal of Applied Physics</i> , 1995 , 77, 1320-1322	2.5	17
65	Dose, Energy, and Ion Species Dependence of the Effective Plus Factor for Transient Enhanced Diffusion. <i>Journal of the Electrochemical Society</i> , 2000 , 147, 3494	3.9	16
64	The significance of redeposition and backscattering in nanostructure formation by focused ion beams. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2012 , 282, 12-16	1.2	14
63	Dynamic binary collision simulation of focused ion beam milling of deep trenches. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2011 , 269, 1609-1613	1.2	14
62	Theoretical estimate of the low-energy limit to ion channeling. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1996 , 115, 323-327	1.2	14
61	Sputtering of silicon at glancing incidence. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013 , 303, 142-147	1.2	12

60	Random and channeling stopping power of H in Si below 100 keV. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2006 , 242, 617-619	1.2	12
59	Method to characterize the three-dimensional distribution of focused ion beam induced damage in silicon after 50 keV Ga ⁺ irradiation. <i>Journal of Vacuum Science and Technology A: Vacuum, Surfaces and Films</i> , 2003 , 21, 1644-1648	2.9	12
58	Range evaluation in SIMS depth profiles of Er-implantations in silicon. <i>Applied Surface Science</i> , 2005 , 252, 271-277	6.7	12
57	Verification of models for the simulation of boron implantation into crystalline silicon. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1996 , 14, 272		11
56	Modeling of {311} Defects. <i>Materials Research Society Symposia Proceedings</i> , 1999 , 568, 123		10
55	Model for the electronic stopping of channeled ions in silicon around the stopping power maximum. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995 , 106, 47-50	1.2	10
54	Electronic Stopping of Channeled Ions in Silicon. <i>Materials Research Society Symposia Proceedings</i> , 1992 , 279, 165		10
53	Model-independent determination of 2D strain distribution in ion-implanted silicon crystals from x-ray diffraction data. <i>Semiconductor Science and Technology</i> , 1997 , 12, 350-354	1.8	9
52	Ion multibeam nanopatterning for photonic applications: Experiments and simulations, including study of precursor gas induced etching and deposition. <i>Journal of Vacuum Science & Technology B</i> , 2009 , 27, 2668		8
51	Modeling of amorphous pocket formation in silicon by numerical solution of the heat transport equation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005 , 228, 226-229	1.2	8
50	Modeling of electronic stopping and damage accumulation during arsenic implantation in silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995 , 100, 483-489	1.2	8
49	Crater function moments: Role of implanted noble gas atoms. <i>Physical Review B</i> , 2018 , 97,	3.3	7
48	Quantitative simulation of ion-beam induced deposition of nanostructures. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2011 , 29, 011031	1.3	7
47	Multiscale approach for the analysis of channeling profile measurements of ion implantation damage. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005 , 228, 360-363	1.2	7
46	Channeling of low-energy implanted ions through the poly-Si gate. <i>IEEE Electron Device Letters</i> , 1999 , 20, 357-359	4.4	7
45	Continuum treatment of spatial correlation in damage annealing. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1999 , 153, 172-176	1.2	7
44	AN EMPIRICAL MODEL FOR THE ELECTRONIC STOPPING OF BORON IN SILICON. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , 1991 , 10, 323-330	0.7	7
43	Sputtering of SiGe _{1-x} nanospheres. <i>Physical Review B</i> , 2018 , 97,	3.3	6

42	Modeling of precursor coverage in ion-beam induced etching and verification with experiments using XeF ₂ on SiO ₂ . <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010 , 28, 946-951	1.3	6
41	Modeling of ultra-low energy boron implantation in silicon		6
40	Ab initio calculations of the interaction between native point defects in silicon. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005 , 124-125, 368-371	3.1	6
39	Acceleration of binary collision simulations in crystalline targets using critical angles for ion channeling. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995 , 102, 24-28	1.2	6
38	Dependence of ion channeling on relative atomic number in compounds. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2018 , 435, 61-69	1.2	6
37	Inverse modeling of FIB milling by dose profile optimization. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 341, 77-83	1.2	5
36	Verification of lateral secondary ion mass spectrometry as a method for measuring lateral dopant dose distributions in microelectronics test structures. <i>Journal of Vacuum Science & Technology an Official Journal of the American Vacuum Society B, Microelectronics Processing and Phenomena</i> , 1998 , 16, 386		5
35	THE EFFECT OF A SCREENING OXIDE ON ION IMPLANTATION STUDIED BY MONTE CARLO SIMULATIONS. <i>COMPEL - the International Journal for Computation and Mathematics in Electrical and Electronic Engineering</i> , 1992 , 11, 403-411	0.7	5
34	Dependence of boron axial channelling in silicon on crystal orientation. <i>Surface and Interface Analysis</i> , 1992 , 19, 369-373	1.5	5
33	Sputtering of silicon membranes with nanoscale thickness. <i>Journal of Applied Physics</i> , 2016 , 119, 245105	2.5	5
32	Sputter-redeposition method for the fabrication of automatically sealed micro/nanochannel using FIBs. <i>International Journal of Precision Engineering and Manufacturing</i> , 2011 , 12, 893-898	1.7	4
31	Topography simulation of sputtering using an algorithm with second order approximation in space. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2011 , 269, 1614-1618	1.2	4
30	A study of ultra-shallow implanted dopant profiles in silicon using BC and MD simulations. <i>Radiation Effects and Defects in Solids</i> , 1997 , 141, 113-125	0.9	4
29	Hydrogen/Deuterium-defect complexes involved in the ion cutting of Si (001) at the sub-100nm scale. <i>Physica B: Condensed Matter</i> , 2006 , 376-377, 36-40	2.8	4
28	Channeling maps for Si ions in Si: Assessing the binary collision approximation. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2019 , 449, 17-21	1.2	3
27	Simple model of surface roughness for binary collision sputtering simulations. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2017 , 393, 17-21	1.2	3
26	Amorphous pockets in Si: Comparison of coupled molecular dynamics and TEM image contrast simulations with experimental results. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 255, 105-109	1.2	3
25	Coupled BC/kLMC simulations of the temperature dependence of implant damage formation in silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005 , 228, 256-259	1.2	3

24	Initial Conditions for Transient Enhanced Diffusion: Beyond the Plus-Factor Approach 2001 , 34-37		3
23	Absence of a Crystal Direction Regime in which Sputtering Corresponds to Amorphous Material. <i>Physical Review Letters</i> , 2020 , 125, 225502	7.4	3
22	Ion bombardment induced atom redistribution in amorphous targets: MD versus BCA. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2019 , 447, 30-33	1.2	2
21	Combined binary collision and continuum mechanics model applied to focused ion beam milling of a silicon membrane. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015 , 352, 22-26	1.2	2
20	Amorphous pocket model based on the modified heat transport equation and local lattice collapse. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2009 , 267, 1229-1231	1.2	2
19	Investigation of the impact of defect models on Monte Carlo simulations of RBS/C spectra. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2006 , 249, 776-779	1.2	2
18	Boron implantation in Si: Channeling effects studied by SIMS and simulation. <i>Mikrochimica Acta</i> , 1992 , 107, 161-169	5.8	2
17			2
16	Simulation Study of Al Channeling in 4H-SiC 2018 ,		2
15	Channeled MeV B, P and As Profiles in Si(100): Monte-Carlo Models and SIMS 2018 ,		2
14	Assessment of surface potential models by molecular dynamics simulations of atom ejection from (100)-Si surfaces. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2013 , 303, 165-169	1.2	1
13	Simulation of Ion-beam Induced Etching and Deposition Using a Non-local Recoil-based Algorithm. <i>Materials Research Society Symposia Proceedings</i> , 2009 , 1181, 42		1
12	Dose-rate dependence of damage formation in Si by N implantation as determined from channeling profile measurements. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2006 , 242, 667-669	1.2	1
11	Simulation of Focused Ion Beam Induced Damage Formation in Crystalline Silicon. <i>Materials Research Society Symposia Proceedings</i> , 2003 , 792, 68		1
10	Use of transient enhanced diffusion to tailor boron out-diffusion. <i>IEEE Transactions on Electron Devices</i> , 2000 , 47, 1401-1405	2.9	1
9	Comparison of Damage Accumulation Models for Boron Implantation in Silicon. <i>Materials Research Society Symposia Proceedings</i> , 1995 , 389, 221		1
8	Calculation of internal gettering sites after double-step and CMOS-type thermal anneals. <i>Microelectronic Engineering</i> , 1991 , 15, 57-60	2.5	1
7	Monte Carlo Simulation of Multiple-Species Ion Implantation and its Application to the Modeling of 0.1µm PMOS Devices 1995 , 484-487		1

- 6 Second order corrections to the sputter yield of a curved surface. *Journal of Applied Physics*, **2021**, 129, 194301 2.5 1
- 5 Is there an influence of ion-beam-induced interfacial amorphization on the a/c-interface depth in silicon at common implantation energies?. *Nuclear Instruments & Methods in Physics Research B*, **2006**, 253, 227-231 1.2
- 4 Coupled Kinetic Monte Carlo and Molecular Dynamics Simulations of Implant Damage Accumulation in Silicon. *Materials Research Society Symposia Proceedings*, **2003**, 792, 434
- 3 Ion Beam Devices for Material Processing and Analysis **2008**, 231-263
- 2 A Kinetic Model for Precipitation of Oxygen in Silicon **1996**, 447-454
- 1 Model for the electronic stopping of channeled ions in silicon around the stopping power maximum **1996**, 47-50