

Ivan Santos

List of Publications by Citations

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

47
papers

312
citations

11
h-index

15
g-index

66
ext. papers

354
ext. citations

2.5
avg, IF

2.79
L-index

#	Paper	IF	Citations
47	Modeling of damage generation mechanisms in silicon at energies below the displacement threshold. <i>Physical Review B</i> , 2006 , 74,	3.3	32
46	Front-end process modeling in silicon. <i>European Physical Journal B</i> , 2009 , 72, 323-359	1.2	27
45	Improved atomistic damage generation model for binary collision simulations. <i>Journal of Applied Physics</i> , 2009 , 105, 083530	2.5	21
44	Characterization of octadecaborane implantation into Si using molecular dynamics. <i>Physical Review B</i> , 2006 , 74,	3.3	21
43	Recrystallization of atomically balanced amorphous pockets in Si: A source of point defects. <i>Physical Review B</i> , 2007 , 76,	3.3	18
42	Molecular dynamics simulations of damage production by thermal spikes in Ge. <i>Journal of Applied Physics</i> , 2012 , 111, 033519	2.5	15
41	Molecular dynamics characterization of as-implanted damage in silicon. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005 , 124-125, 372-375	3.1	14
40	Elucidating the atomistic mechanisms driving self-diffusion of amorphous Si during annealing. <i>Physical Review B</i> , 2011 , 83,	3.3	13
39	Modeling of defects, dopant diffusion and clustering in silicon. <i>Journal of Computational Electronics</i> , 2014 , 13, 40-58	1.8	12
38	Atomistic analysis of the annealing behavior of amorphous regions in silicon. <i>Journal of Applied Physics</i> , 2007 , 101, 093518	2.5	12
37	Structural transformations from point to extended defects in silicon: A molecular dynamics study. <i>Physical Review B</i> , 2008 , 78,	3.3	11
36	Molecular dynamics simulation of the regrowth of nanometric multigate Si devices. <i>Journal of Applied Physics</i> , 2012 , 111, 034302	2.5	9
35	Self-trapping in B-doped amorphous Si: Intrinsic origin of low acceptor efficiency. <i>Physical Review B</i> , 2010 , 81,	3.3	8
34	Physical insight into ultra-shallow junction formation through atomistic modeling. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2006 , 253, 41-45	1.2	8
33	Atomistic simulations in Si processing: Bridging the gap between atoms and experiments. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2005 , 124-125, 72-80	3.1	8
32	Atomistic study of the structural and electronic properties of a-Si:H/c-Si interfaces. <i>Journal of Physics Condensed Matter</i> , 2014 , 26, 095001	1.8	7
31	Atomistic modeling of defect evolution in Si for amorphizing and subamorphizing implants. <i>Materials Science and Engineering B: Solid-State Materials for Advanced Technology</i> , 2004 , 114-115, 82-87	3.1	7

30	Molecular dynamics simulation of the early stages of self-interstitial clustering in silicon. <i>Materials Science in Semiconductor Processing</i> , 2016 , 42, 235-238	4.3	6
29	Atomistic process modeling based on Kinetic Monte Carlo and Molecular Dynamics for optimization of advanced devices 2009 ,		6
28	Molecular dynamics study of amorphous pocket formation in Si at low energies and its application to improve binary collision models. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 255, 110-113	1.3	6
27	W and X Photoluminescence Centers in Crystalline Si: Chasing Candidates at Atomic Level Through Multiscale Simulations. <i>Journal of Electronic Materials</i> , 2018 , 47, 5045-5049	1.9	5
26	Ultrafast Generation of Unconventional {001} Loops in Si. <i>Physical Review Letters</i> , 2017 , 119, 205503	7.4	5
25	Atomistic modeling of impurity ion implantation in ultra-thin-body Si devices 2008 ,		4
24	Molecular dynamics study of damage generation mechanisms in silicon at the low energy regime 2007 ,		4
23	Insights on the atomistic origin of X and W photoluminescence lines inc-Si from ab initio simulations. <i>Journal Physics D: Applied Physics</i> , 2016 , 49, 075109	3	4
22	A detailed approach for the classification and statistical analysis of irradiation induced defects. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015 , 352, 156-159	1.2	3
21	Improved physical models for advanced silicon device processing. <i>Materials Science in Semiconductor Processing</i> , 2017 , 62, 62-79	4.3	3
20	Simulation of p-n junctions: Present and future challenges for technologies beyond 32 nm. <i>Journal of Vacuum Science and Technology B: Nanotechnology and Microelectronics</i> , 2010 , 28, C1A1-C1A6	1.3	3
19	On the anomalous generation of {0 0 1} loops during laser annealing of ion-implanted silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2019 , 458, 179-183	1.2	3
18	Generation of amorphous Si structurally compatible with experimental samples through the quenching process: A systematic molecular dynamics simulation study. <i>Journal of Non-Crystalline Solids</i> , 2019 , 503-504, 20-27	3.9	3
17	Multiscale modeling of radiation damage and annealing in Si. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 255, 95-100	1.2	2
16	Atomistic modeling of ion beam induced amorphization in silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005 , 241, 501-505	1.2	2
15	{001} loops in silicon unraveled. <i>Acta Materialia</i> , 2019 , 166, 192-201	8.4	2
14	Atomistic modeling of ion implantation technologies in silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2015 , 352, 148-151	1.2	1
13	Identification of Extended Defect Atomic Configurations in Silicon Through Transmission Electron Microscopy Image Simulation. <i>Journal of Electronic Materials</i> , 2018 , 47, 4955-4958	1.9	1

12	Modeling of advanced ion implantation technologies in semiconductors 2011 ,		1
11	Simulation study of ion implanted defects associated to luminescence centers in silicon 2011 ,		1
10	Molecular implants and cold implants: Two new strategies for junction formation of future Si devices 2011 ,		1
9	Physics Mechanisms Involved in the Formation and Recrystallization of Amorphous Regions in Si through Ion Irradiation. <i>Solid State Phenomena</i> , 2008 , 139, 71-76	0.4	1
8	Molecular dynamics study of B18H22 cluster implantation into silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2007 , 255, 242-246	1.2	1
7	Extending defect models for Si processing: The role of energy barriers for defect transformation, entropy and coalescence mechanism. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2022 , 512, 54-59	1.2	1
6	Atomistic simulations of acceptor removal in p-type Si irradiated with neutrons. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2022 , 512, 42-48	1.2	0
5	Atomistic Simulation Techniques in Front-End Processing. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1070, 1		
4	First Principles Study of Boron in Amorphous Silicon. <i>Materials Research Society Symposia Proceedings</i> , 2008 , 1070, 1		
3	Atomistic Modeling of Ion Beam Induced Defects in Si: From Point Defects to Continuous Amorphous Layers.. <i>Materials Research Society Symposia Proceedings</i> , 2004 , 810, 422		
2	Molecular Dynamics Modeling of Octadecaborane Implantation into Si 2007 , 17-20		
1	Atomistic modeling of laser-related phenomena 2021 , 79-136		