Julien Godet

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.

45	747	17	26
papers	citations	h-index	g-index
51	802	3.1	3.92
ext. papers	ext. citations	avg, IF	L-index

#	Paper	IF	Citations
45	Theoretical study of dislocation nucleation from simple surface defects in semiconductors. *Physical Review B*, **2004**, 70,	3.3	70
44	Proton diffusion mechanism in amorphous SiO2. *Physical Review Letters*, **2006**, 97, 155901	7.4	54
43	Elastic limit for surface step dislocation nucleation in face-centered cubic metals: Temperature and step height dependence. *Acta Materialia*, **2010**, 58, 4182-4190	8.4	48
42	Dislocation formation from a surface step in semiconductors: An ab initio study. *Physical Review B*, **2006**, 73,	3.3	41
41	A new parametrization of the Stillinger-Weber potential for an improved description of defects and plasticity of silicon. *Journal of Physics Condensed Matter*, **2013**, 25, 055801	1.8	40
40	First principles investigation of defect energy levels at semiconductor-oxide interfaces: Oxygen vacancies and hydrogen interstitials in the Si□SiO2□HfO2 stack. *Journal of Applied Physics*, **2009**, 105, 061603	2.5	38
39	Glissile dislocations with transient cores in silicon. *Physical Review Letters*, **2009**, 103, 065505	7.4	36
38	Comparison between classical potentials andab initiomethods for silicon under large shear. *Journal of Physics Condensed Matter*, **2003**, 15, 6943-6953	1.8	35
37	Deformation of silicon nanowires studied by molecular dynamics simulations. *Modelling and Simulation in Materials Science and Engineering*, **2011**, 19, 074003	2	22
36	Determination of activation parameters for dislocation formation from a surface in fcc metals by atomistic simulations. *Physical Review B*, **2008**, 78,	3.3	22
35	Hydrogen in Si(100)□SiO2□HfO2 gate stacks: Relevant charge states and their location. *Applied Physics Letters*, **2007**, 91, 262901	3.4	21
34	Plasticity in crystalline-amorphous core-shell Si nanowires controlled by native interface defects. *Physical Review B*, **2013**, 87,	3.3	20
33	Proton-induced fixed positive charge at the Si(100)-SiO2 interface. *Physical Review Letters*, **2007**, 99, 126102	7.4	20
32	Ab initio study of charged states of H in amorphous SiO2. *Microelectronic Engineering*, **2005**, 80, 288-291	2.5	20
31	Computer study of microtwins forming from surface steps of silicon. *Computational Materials Science*, **2004**, 30, 16-20	3.2	19
30	Low-temperature intrinsic plasticity in silicon at small scales. *Acta Materialia*, **2018**, 161, 54-60	8.4	19
29	Unexpected slip mechanism induced by the reduced dimensions in silicon nanostructures: Atomistic study. *Acta Materialia*, **2011**, 59, 7464-7472	8.4	17

28	Atomistic simulations of <1 1 0> screw dislocation core in magnesium oxide. *Computational Materials Science*, **2015**, 103, 250-255	3.2	16
27	Dislocation nucleation from surface step in silicon: The glide set versus the shuffle set. *Physica Status Solidi (A) Applications and Materials Science*, **2009**, 206, 1885-1891	1.6	15
26	Onset of ductility and brittleness in silicon nanowires mediated by dislocation nucleation. *Modelling and Simulation in Materials Science and Engineering*, **2015**, 23, 025010	2	13
25	Properties of threading screw dislocation core in wurtzite GaN studied by Heyd-Scuseria-Ernzerhof hybrid functional. *Applied Physics Letters*, **2013**, 103, 262107	3.4	13
24	MgO/metal interfaces at low coverage: An order N, semiempirical Hartree-Fock simulation. *Physical Review B*, **2010**, 81,	3.3	12
23	Uniform tensile elongation in Au Si core shell nanowires. *Extreme Mechanics Letters*, **2016**, 8, 151-159	3.9	11
22	Surface effects on the mechanical behavior of silicon nanowires: Consequence on the brittle to ductile transition at low scale and low temperature. *Physica Status Solidi (A) Applications and Materials Science*, **2015**, 212, 1643-1648	1.6	10
21	Determination of activation parameters for the core transformation of the screw dislocation in silicon. *Modelling and Simulation in Materials Science and Engineering*, **2010**, 18, 065001	2	10
20	A fully molecular dynamics-based method for modeling nanoporous gold. *Computational Materials Science*, **2019**, 161, 135-142	3.2	9
19	Surface step effects on Si (100) under uniaxial tensile stress, by atomistic calculations. *Scripta Materialia*, **2002**, 47, 481-486	5.6	9
18	Theoretical study of hydrogen stability and aggregation in dislocation cores in silicon. *Physical Review B*, **2010**, 82,	3.3	8
17	Dislocation cores in silicon: new aspects from numerical simulations. *Journal of Physics: Conference Series*, **2011**, 281, 012002	0.3	7
16	Investigation of the interaction between hydrogen and screw dislocation in silicon by first-principles calculations. *Journal of Physics Condensed Matter*, **2010**, 22, 035803	1.8	5
15	Protons at the Si-SiO2 interface: a first principle investigation. *Microelectronic Engineering*, **2007**, 84, 2035-2038	2.5	3
14	Molecular dynamics study of mechanical behavior of gold-silicon core-shell nanowires under cyclic loading. *Materialia*, **2019**, 5, 100204	3.2	3
13	Propagation of stacking faults from composite dislocation cores at low temperature in silicon nanostructures. *Journal of Physics: Conference Series*, **2019**, 1190, 012007	0.3	2
12	Influence of strain on dislocation core in silicon. *Philosophical Magazine*, **2018**, 98, 1151-1169	1.6	2
11	Investigation of Plasticity in Silicon Nanowires by Molecular Dynamics Simulations. *Key Engineering Materials*, **2011**, 465, 89-92	0.4	2

10	Proton Diffusion in Amorphous SiO2 and Hafnium Silicate by Ab Initio Molecular Dynamics. *AIP Conference Proceedings*, **2007**,	0	2
9	Plastic behaviour and deformation mechanisms in silicon nano-objects. *Journal of Physics: Conference Series*, **2019**, 1190, 012004	0.3	1
8	Stacking fault formation created by plastic deformation at low temperature and small scales in silicon. *Physical Review Materials*, **2020**, 4,	3.2	1
7	Empirical potential optimization for the investigation of lithiation-delithiation cycles of amorphous Si nanowires. *Physical Review Materials*, **2020**, 4,	3.2	1
6	Atomic scale mechanisms and brittle to ductile transition at low size in silicon. *Materials Today: Proceedings*, **2018**, 5, 14693-14704	1.4	1
5	Atomistic Simulation of Dislocation Generation at Surface Steps in Metals and Silicon. *Solid Mechanics and Its Applications*, **2004**, 129-138	0.4	1
4	Comment on "Bulk dislocation core dissociation probed by coherent x rays in silicon". *Physical Review Letters*, **2011**, 107, 199601; discussion 199602	7.4	0
3	HRTEM study of structural defects and related deformation mechanisms induced by nanocompression of silicon **2016**, 261-262		
2	A Theoretical Study of Dislocation Formation at Surfaces in Covalent Materials: Effect of Step Geometry and Reactivity. *Solid State Phenomena*, **2005**, 108-109, 193-198	0.4	
1	Onset of Plasticity in Crystalline Nanomaterials61-82		