Frederick H Streitz

List of Publications by Year in Descending Order

32 papers	2,337 citations	20 h-index	35 g-index
35 ext. papers	2,482 ext. citations	4.6 avg, IF	4.06 L-index

#	Paper	IF	Citations
32	Machine learning-driven multiscale modeling reveals lipid-dependent dynamics of RAS signaling proteins.. *Proceedings of the National Academy of Sciences of the United States of America*, **2022**, 119,	11.5	4
31	ddcMD: A fully GPU-accelerated molecular dynamics program for the Martini force field. *Journal of Chemical Physics*, **2020**, 153, 045103	3.9	3
30	Large-scale molecular dynamics simulations of dense plasmas: The Cimarron Project. *High Energy Density Physics*, **2012**, 8, 105-131	1.2	87
29	Self-diffusivity and interdiffusivity of molten aluminum-copper alloys under pressure, derived from molecular dynamics. *Physical Review E*, **2012**, 85, 031202	2.4	12
28	Large-Scale Molecular Dynamics Simulation of Charged Particle Energy Deposition in Plasmas. *IEEE Transactions on Plasma Science*, **2011**, 39, 2620-2621	1.3	2
27	Molecular dynamics simulations of electron-ion temperature equilibration in an SF6 plasma. *Physical Review Letters*, **2009**, 102, 205004	7.4	40
26	Molecular dynamic simulations with radiation. *Journal of Physics A: Mathematical and Theoretical*, **2009**, 42, 214030	2	6
25	BlueGene/L applications: Parallelism On a Massive Scale. *International Journal of High Performance Computing Applications*, **2008**, 22, 33-51	1.8	3
24	Robust quantum-based interatomic potentials for multiscale modeling in transition metals. *Journal of Materials Research*, **2006**, 21, 563-573	2.5	42
23	Simulating solidification in metals at high pressure: The drive to petascale computing. *Journal of Physics: Conference Series*, **2006**, 46, 254-267	0.3	18
22	Beyond finite-size scaling in solidification simulations. *Physical Review Letters*, **2006**, 96, 225701	7.4	65
21	High-pressure tailored compression: Controlled thermodynamic paths. *Journal of Applied Physics*, **2006**, 100, 023508	2.5	32
20	Calculation of optical absorption in Al across the solid-to-liquid transition. *Physical Review B*, **2005**, 71,	3.3	9
19	Scaling physics and material science applications on a massively parallel Blue Gene/L system **2005**,		3
18	Quantum-based atomistic simulation of materials properties in transition metals. *Journal of Physics Condensed Matter*, **2002**, 14, 2825-2857	1.8	123
17	Energetics of aluminum vacancies in gamma alumina. *Physical Review B*, **1999**, 60, 773-777	3.3	62
16	Electrostatic-based model for alumina surfaces. *Thin Solid Films*, **1994**, 253, 179-184	2.2	13

15	Charge transfer and bonding in metallic oxides. *Journal of Adhesion Science and Technology*, **1994**, 8, 853-864	2	31
14	Electrostatic potentials for metal-oxide surfaces and interfaces. *Physical Review B*, **1994**, 50, 11996-12003	3.3	301
13	Surface-stress effects on elastic properties. II. Metallic multilayers. *Physical Review B*, **1994**, 49, 10707-10716	3.3	66
12	Surface-stress effects on elastic properties. I. Thin metal films. *Physical Review B*, **1994**, 49, 10699-10706	3.3	198
11	Elastic interactions of defects on (111) Au surfaces. *Physical Review B*, **1992**, 45, 11433-11436	3.3	2
10	Elastic properties of thin fcc films. *Physical Review B*, **1990**, 41, 12285-12287	3.3	46
9	Significance of plane versus chain sites in high-temperature oxide superconductors. *Nature*, **1988**, 332, 238-240	50.4	203
8	High-temperature superconductivity in tetragonal perovskite structures: Is oxygen-vacancy order important?. *Physical Review Letters*, **1988**, 60, 1446-1449	7.4	306
7	Superconductivity and magnetism in transition-element-substituted YBa2Cu3O7 compounds. *Journal of Applied Physics*, **1988**, 63, 4196-4198	2.5	17
6	Superconducting Au-YBa2Cu3O7 composites. *Applied Physics Letters*, **1988**, 52, 927-929	3.4	30
5	Electrical transport and superconductivity in a Au-YBa2Cu3O7 percolation system. *Physical Review B*, **1988**, 38, 776-779	3.3	67
4	Effect of noble metal buffer layers on superconducting YBa2Cu3O7 thin films. *Applied Physics Letters*, **1987**, 51, 2155-2157	3.4	40
3	Flux pinning and critical current density in YBa2Cu3O6+y and EuBa2Cu3O6+y superconductors. *Physical Review B*, **1987**, 36, 2382-2385	3.3	36
2	Effect of transition-metal elements on the superconductivity of Y-Ba-Cu-O. *Physical Review B*, **1987**, 35, 8782-8784	3.3	415
1	Magnetic characteristics of superconducting RBa2Cu3O6+y (R = Nd, Sm, Eu, Gd, Dy, Ho, Er, Tm and Yb). *Solid State Communications*, **1987**, 63, 817-820	1.6	54