

Sven Å-berg

List of Publications by Year in descending order

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45
papers

1,110
citations

430843

18
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395678

33
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46
all docs

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docs citations

46
times ranked

1207
citing authors

#	ARTICLE	IF	CITATIONS
1	Stacking faults in 3C β , 4H β , and 6H β SiC polytypes investigated by an ab initio supercell method. Physical Review B, 2003, 67, .	3.2	148
2	Calculations of Electrical Levels of Deep Centers: Application to Au-H and Ag-H Defects in Silicon. Physical Review Letters, 1999, 82, 2111-2114.	7.8	106
3	Localized electronic states around stacking faults in silicon carbide. Physical Review B, 2001, 65, .	3.2	93
4	Effects of Dislocation Interactions: Application to the Period-Doubled Core of the 90 $^\circ$ Partial in Silicon. Physical Review Letters, 1998, 80, 5568-5571.	7.8	87
5	Cation-site intrinsic defects in Zn-doped CdTe. Physical Review B, 2010, 81, .	3.2	66
6	Donor-vacancy complexes in Ge: Cluster and supercell calculations. Physical Review B, 2006, 73, .	3.2	61
7	Optoelectronics and defect levels in hydroxyapatite by first-principles. Journal of Chemical Physics, 2018, 148, 154706.	3.0	54
8	Structure and properties of vacancy-oxygen complexes in Si $_{1-x}$ Ge $_x$ alloys. Physical Review B, 2004, 69, .	3.2	42
9	First-principles study of hydrogen and fluorine intercalation into graphene-SiC(0001) interface. Physical Review B, 2012, 86, .	3.2	33
10	Optical properties of vacancy related defects in diamond. Physica Status Solidi A, 2005, 202, 2182-2187.	1.7	31
11	On the diffusion of NV defects in diamond. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1765-1768.	1.8	29
12	Effective masses of two-dimensional electron gases around cubic inclusions in hexagonal silicon carbide. Physical Review B, 2003, 68, .	3.2	24
13	Diffusion of nitrogen in silicon. Applied Physics Letters, 2005, 87, 021902.	3.3	24
14	First-principles studies of the effect of (001) surface terminations on the electronic properties of the negatively charged nitrogen-vacancy defect in diamond. Physical Review B, 2012, 86, .	3.2	22
15	Ab initio investigation of boron diffusion paths in germanium. Journal of Materials Science: Materials in Electronics, 2007, 18, 775-780.	2.2	20
16	P β -doping of Si nanoparticles: The effect of oxidation. Physica Status Solidi (A) Applications and Materials Science, 2012, 209, 1847-1850.	1.8	20
17	Effect of Water on the Adsorption of Methane and Carbon Dioxide in Zeolite Na-ZSM-5 Studied Using <i>In Situ</i> ATR-FTIR Spectroscopy. Journal of Physical Chemistry C, 2016, 120, 29144-29152.	3.1	20
18	Anisotropic and plane-selective migration of the carbon vacancy in SiC: Theory and experiment. Physical Review B, 2019, 100, .	3.2	20

#	ARTICLE	IF	CITATIONS
19	Electron energy loss spectroscopic studies of brown diamonds. <i>Philosophical Magazine</i> , 2006, 86, 4757-4779.	1.6	19
20	Early stage donor-vacancy clusters in germanium. <i>Journal of Materials Science: Materials in Electronics</i> , 2007, 18, 769-773.	2.2	18
21	Electrical and optical properties of rod-like defects in silicon. <i>Applied Physics Letters</i> , 2004, 85, 4633-4635.	3.3	16
22	Electrical and optical properties of multivacancy centres in diamond. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2007, 204, 3059-3064.	1.8	16
23	Charged dopants in neutral supercells through substitutional donor (acceptor): nitrogen donor charging of the nitrogen-vacancy center in diamond. <i>New Journal of Physics</i> , 2018, 20, 023002.	2.9	14
24	Powerful recombination centers resulting from reactions of hydrogen with carbon-oxygen defects in n-type Czochralski-grown silicon. <i>Physica Status Solidi - Rapid Research Letters</i> , 2017, 11, 1700133.	2.4	13
25	Energies and electronic properties of isolated and interacting twin boundaries in $3C$ SiC, Si, and diamond. <i>Physical Review B</i> , 2003, 68, .	3.2	11
26	Optically active erbium-oxygen complexes in GaAs. <i>Applied Physics Letters</i> , 2004, 84, 1683-1685.	3.3	10
27	Role of extended defects in brown colouration of diamond. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007, 4, 2950-2957.	0.8	9
28	The bulk conversion depth of the NV-center in diamond: computing a charged defect in a neutral slab. <i>New Journal of Physics</i> , 2019, 21, 053037.	2.9	8
29	Local vibrational modes of $N_2^{+}O_n$ defects in Cz-Silicon. <i>Journal of Materials Science: Materials in Electronics</i> , 2007, 18, 683-687.	2.2	7
30	Boron doped Si nanoparticles: the effect of oxidation. <i>Physica Status Solidi (B): Basic Research</i> , 2013, 250, 1799-1803.	1.5	7
31	Characterization of a Hexagonal Phosphorus Adlayer on Platinum (111). <i>Journal of Physical Chemistry C</i> , 2015, 119, 12291-12297.	3.1	7
32	Structure Elucidation of an Yttrium Diethyldithiocarbamate-Phenanthroline Complex by X-ray Crystallography, Solid-State NMR, and ab-initio Quantum Chemical Calculations. <i>European Journal of Inorganic Chemistry</i> , 2016, 2016, 3278-3291.	2.0	7
33	Theoretical study on the adsorption of armchair carbon nanotubes on the hydrogenated surface of diamond. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2006, 203, 3107-3113.	1.8	6
34	Transfer doping of diamond: Buckminsterfullerene on hydrogenated, hydroxylated, and oxygenated diamond surfaces. <i>Journal of Materials Science: Materials in Electronics</i> , 2006, 17, 459-465.	2.2	6
35	Movement and pinning of dislocations in SiC. <i>Physica Status Solidi C: Current Topics in Solid State Physics</i> , 2007, 4, 2923-2928.	0.8	6
36	Theory of a carbon-oxygen-hydrogen recombination center in n-type Si. <i>Physica Status Solidi (A) Applications and Materials Science</i> , 2017, 214, 1700309.	1.8	6

#	ARTICLE	IF	CITATIONS
37	A theoretical study of de-charging excitations of the NV-center in diamond involving a nitrogen donor [*] . New Journal of Physics, 2020, 22, 123042.	2.9	6
38	Effect of functionalization and charging on resonance energy and radial breathing modes of metallic carbon nanotubes. Physical Review B, 2016, 93, .	3.2	5
39	Density-functional calculations of carbon doping in III-V compound semiconductors. Physical Review B, 2001, 63, .	3.2	4
40	First-principles calculations of iron-hydrogen reactions in silicon. Journal of Applied Physics, 2018, 123, .	2.5	3
41	The diamond NV-center transition energies in the vicinity of an intrinsic stacking fault. AIP Advances, 2022, 12, 035009.	1.3	3
42	Computational study of the CO adsorption and diffusion in zeolites: validating the Reed&Ehrlich model. Adsorption, 2018, 24, 403-413.	3.0	2
43	Oxygen defects in irradiated germanium. Journal of Materials Science: Materials in Electronics, 2007, 18, 781-786.	2.2	1
44	Powerful recombination centers resulting from reactions of hydrogen with carbon&oxygen defects in n&type Czochralski&grown silicon (Phys. Status Solidi RRL 8/2017). Physica Status Solidi - Rapid Research Letters, 2017, 11, 1770342.	2.4	0
45	FIRST PRINCIPLES STUDY OF HYDROGEN-INDUCED DECOUPLING OF EPITAXIAL GRAPHENE FROM SIC SUBSTRATES. , 2011, , .		0