

Zoltán Hajnal

List of Publications by Year in descending order

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53
papers

2,424
citations

304743

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197818

49
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53
all docs

53
docs citations

53
times ranked

2453
citing authors

#	ARTICLE	IF	CITATIONS
1	Robust Contact Angle Determination for Needle-in-Drop Type Measurements. ACS Omega, 2019, 4, 18465-18471.	3.5	15
2	The Role of Phase Changes in TiO ₂ /Pt/TiO ₂ Filaments. Journal of Electronic Materials, 2018, 47, 2322-2329.	2.2	4
3	The critical impact of temperature gradients on Pt filament failure. Microelectronics Reliability, 2017, 78, 118-125.	1.7	13
4	Detecting patchy nanoparticle assembly at the single-particle level. Nanoscale, 2017, 9, 10344-10349.	5.6	7
5	Spiral-Shaped Piezoelectric MEMS Cantilever Array for Fully Implantable Hearing Systems. Micromachines, 2017, 8, 311.	2.9	27
6	Multiphysics modelling of the fabrication and operation of a micro-pellistor device. , 2014, , .		3
7	Thermo-mechanical design and characterization of low dissipation micro-hotplates operated above 500Å°C. Microelectronics Journal, 2014, 45, 1822-1828.	2.0	17
8	Membrane Platforms for Sensors. Procedia Engineering, 2014, 87, 871-878.	1.2	4
9	Optimisation of low dissipation micro-hotplates - Thermo-mechanical design and characterisation. , 2013, , .		5
10	Fracture analysis of silicon microprobes designed for deep-brain stimulation. Microelectronic Engineering, 2013, 103, 160-166.	2.4	10
11	In-situ mechanical characterization of wurtzite InAs nanowires. Solid State Communications, 2012, 152, 1829-1833.	1.9	11
12	Sensitivity tuning of A 3-axial piezoresistive force sensor. Microelectronic Engineering, 2012, 90, 40-43.	2.4	9
13	Wedge etching by anodic oxidation and determination of shallow boron profile by ion beam analysis. Nuclear Instruments & Methods in Physics Research B, 2008, 266, 1434-1438.	1.4	1
14	The Search for Near Interface Oxide Traps - First-Principles Calculations on Intrinsic SiO ₂ Defects. Materials Science Forum, 2005, 483-485, 569-572.	0.3	7
15	Theoretical study of the mechanism of dry oxidation of 4H-SiC. Physical Review B, 2005, 71, .	3.2	133
16	Defects in SiO ₂ as the possible origin of near interface traps in the SiC/SiO ₂ system: A systematic theoretical study. Physical Review B, 2005, 72, .	3.2	151
17	Simulation of physical properties of the chalcogenide glass As ₂ S ₃ using a density-functional-based tight-binding method. Physical Review B, 2004, 69, .	3.2	30
18	Global optimization of silicon nanoclusters. Applied Surface Science, 2004, 226, 108-113.	6.1	5

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19	Theoretical study of the adsorption of a PTCDA monolayer on S-passivated GaAs(100). Applied Surface Science, 2004, 234, 173-177.	6.1	34
20	Tubular structures of GaS. Physical Review B, 2004, 69, .	3.2	62
21	Defects of the SiC/SiO ₂ interface: energetics of the elementary steps of the oxidation reaction. Physica B: Condensed Matter, 2003, 340-342, 1069-1073.	2.7	17
22	Chalcogen passivation of GaAs(1 0 0) surfaces: theoretical study. Applied Surface Science, 2003, 212-213, 861-865.	6.1	23
23	A Cause for SiC/SiO ₂ Interface States: the Site Selection of Oxygen in SiC. Materials Science Forum, 2003, 433-436, 535-538.	0.3	9
24	Physics and chemistry of hydrogen in the vacancies of semiconductors. Physical Review B, 2003, 68, .	3.2	30
25	Isolated oxygen defects in 3C- and 4H-SiC: a theoretical study. Physical Review B, 2002, 66, .	3.2	47
26	Atomistic simulations of complex materials: ground-state and excited-state properties. Journal of Physics Condensed Matter, 2002, 14, 3015-3047.	1.8	423
27	Atomistic simulation of the bombardment process during the BEN phase of chemical vapor deposition (CVD) of diamond. Diamond and Related Materials, 2002, 11, 513-518.	3.9	4
28	Theoretical investigation of carbon defects and diffusion in $\hat{\Gamma}$ -quartz. Physical Review B, 2001, 64, .	3.2	75
29	Band structure and optical properties of germanium sheet polymers. Physical Review B, 2001, 64, .	3.2	18
30	Polygermyne: Germanium sheet polymers with efficient near-infrared luminescence. Materials Research Society Symposia Proceedings, 2001, 667, 1.	0.1	2
31	Tubular structures of germanium. Solid State Communications, 2001, 119, 653-657.	1.9	23
32	Interstitial-based vacancy annealing in 4H-SiC. Physica B: Condensed Matter, 2001, 308-310, 645-648.	2.7	16
33	Structure of the silicon vacancy in 6H-SiC after annealing identified as the carbon vacancy-carbon antisite pair. Physical Review B, 2001, 64, .	3.2	106
34	Electrical Activity of Isolated Oxygen Defects in SiC. Materials Science Forum, 2001, 353-356, 463-466.	0.3	2
35	Intrinsic Defect Complexes in $\hat{\Gamma}$ -SiC: the Formation of Antisite Pairs. Materials Science Forum, 2001, 353-356, 435-438.	0.3	9
36	Theoretical study of the nonpolar surfaces and their oxygen passivation in 4H- and 6H-SiC. Physical Review B, 2001, 64, .	3.2	35

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37	A Self-Consistent Charge Density-Functional Based Tight-Binding Method for Predictive Materials Simulations in Physics, Chemistry and Biology. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 217, 41-62.	1.5	508
38	Metastability of the Neutral Silicon Vacancy in 4H-SiC. <i>Physica Status Solidi (B): Basic Research</i> , 2000, 217, r1-r3.	1.5	52
39	(10-10) and (11-20) Surfaces in 2H, 4H and 6H SiC. <i>Materials Science Forum</i> , 2000, 338-342, 365-368.		6
40	A semiempirical approach to hydrogen bonding networks. Application of the Cyclic Cluster Model to organic crystals. <i>Computational and Theoretical Chemistry</i> , 1999, 463, 169-174.	1.5	4
41	Theoretical Investigation of the Oxygen Vacancies in $\hat{\Gamma}^2$ -Ga ₂ O ₃ . <i>Physica Status Solidi A</i> , 1999, 171, R5-R6.	1.7	4
42	Role of oxygen vacancy defect states in the n-type conduction of $\hat{\Gamma}^2$ -Ga ₂ O ₃ . <i>Journal of Applied Physics</i> , 1999, 86, 3792-3796.	2.5	203
43	Theoretical study of the luminescent substoichiometric silicon oxides (SiO _x). <i>Solid State Communications</i> , 1998, 108, 93-97.	1.9	22
44	Surface recombination model of visible luminescence in porous silicon. <i>Journal of Non-Crystalline Solids</i> , 1998, 227-230, 1053-1057.	3.1	4
45	Morphological investigation of porous samples by resonant backscattering spectrometry. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1998, 136-138, 533-539.	1.4	17
46	Hydrogenated and deuterated iron clusters: Infrared spectra and density functional calculations. <i>Journal of Chemical Physics</i> , 1998, 109, 10692-10700.	3.0	38
47	Investigation of the Morphology of Porous Silicon by Rutherford Backscattering Spectrometry. <i>Materials Science Forum</i> , 1997, 248-249, 373-376.	0.3	12
48	Density-functional-based predictions of Raman and IR spectra for small Si clusters. <i>Physical Review B</i> , 1997, 55, 2549-2555.	3.2	71
49	CONCEPTUAL MAPPING OF A DATABASE IN THE HUMANITIES: FIRST RESULTS OF AN EXPERIMENT WITH SOPHIA. <i>Journal of Documentation</i> , 1996, 52, 86-99.	1.6	5
50	Channeling-like effects due to the macroscopic structure of porous silicon. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1996, 118, 617-621.	1.4	36
51	Recombination with larger than bandgap energy at centres on the surface of silicon microstructures. <i>Thin Solid Films</i> , 1996, 276, 290-292.	1.8	8
52	Vibrational signatures for low-energy intermediate-sized Si clusters. <i>Physical Review B</i> , 1996, 54, 2863-2867.	3.2	39
53	Correlation between the luminescence and Raman peaks in quantum-confined systems. <i>Thin Solid Films</i> , 1995, 255, 241-245.	1.8	8