J A VergÃ©s

List of Publications by Year
in descending order

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102	2,257	257357	233338
papers	citations	24 h-index	45 g-index

103	103	103	1643
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Conductance through the armchair graphene nanoribbons 9-AGNR: Strong dependence on contact to leads. Physical Review B, 2018, 98, .	1.1	7
2	Can model Hamiltonians describe the electronâ€“electron interaction inÏ€-conjugated systems?: PAH and graphene. Journal of Physics Condensed Matter, 2015, 27, 463001.	0.7	10
3	Role of potassium orbitals in the metallic behavior of<mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML"><mml:mi mathvariant="normal">K</mml:mi><mml:msub><mml:mrow /><mml:mn>3</mml:mn></mml:msub><mml:mi mathvariant="normal">picene</mml:mi></mml:math>. Physical Review B, 2014, 90, .	1.1	1
4	Exponential decay of spin-spin correlation between distant defect states produced by contour hydrogenation of polycyclic aromatic hydrocarbon molecules. Physical Review B, 2013, 87, .	1.1	6
5	Spin alignment of extra electrons in K-phenanthrene clusters taken from the crystalline tripotassium-intercalated phenanthrene structure. Physical Review B, 2012, 85, .	1.1	8
6	PPP Hamiltonian for polar polycyclic aromatic hydrocarbons. European Physical Journal B, 2011, 81, 253-262.	0.6	7
7	A stripe with a local gate potential: An efficient magnetometer?. Physica Status Solidi (A) Applications and Materials Science, 2011, 208, 720-724.	0.8	0
8	Ab initioelectronic and geometrical structures of tripotassium-intercalated phenanthrene. Physical Review B, 2011, 84, .	1.1	34
9	Fit of Pariser-Parr-Pople and Hubbard model Hamiltonians to charge and spin states of polycyclic aromatic hydrocarbons. Physical Review B, 2010, 81, .	1.1	25
10	Trapping of electrons near chemisorbed hydrogen on graphene. Physical Review B, 2010, 81, .	1.1	18
11	Hydrogen on graphene under stress: Molecular dissociation and gap opening. Physical Review B, 2010, 81, .	1.1	77
12	Magnetic molecules created by hydrogenation of polycyclic aromatic hydrocarbons. Physical Review B, 2009, 79, .	1.1	14
13	Magnetism in hydroâ€•and dehydrogenated benzene. Physica Status Solidi C: Current Topics in Solid State Physics, 2009, 6, 2139-2144.	0.8	6
14	Effects of methods and basis set on ab initio calculations of electronic transport through hydrogenated Pt nanocontacts. International Journal of Quantum Chemistry, 2008, 108, 1637-1644.	1.0	6
15	Strong covalent bonding between two graphene layers. Physical Review B, 2008, 77, .	1.1	147
16	First-principles calculation of the effect of stress on the chemical activity of graphene. Applied Physics Letters, 2008, 93, .	1.5	50
17	Transport regimes in surface disordered graphene sheets. Physical Review B, 2007, 75, .	1.1	46
18	Hubbard Hamiltonian for the hydrogen molecule. Physical Review B, 2007, 75, .	1.1	21

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19	Quasiperiodic states in linear surface wave experiments. Philosophical Magazine, 2006, 86, 1065-1073.	0.7	5
20	Quasicrystalline and Rational Approximant Wave Patterns in Hydrodynamic and Quantum Nested Wells. Physical Review Letters, 2006, 97, 124501.	2.9	3
21	Phase transitions due to the formation of polarons in colossal magnetoresistive manganites: Monte Carlo simulations. Physical Review B, 2006, 74, .	1.1	2
22	Topology-induced many body effects in hydrogenated Pt nanocontacts. Physical Review B, 2005, 71, .	1.1	13
23	Electrical conductivity of a tight-binding hard-sphere model for hot fluid metals. Physical Review B, 2005, 71, .	1.1	2
24	Electronic transport and vibrational modes in a small molecular bridge:H2in Pt nanocontacts. Physical Review B, 2004, 69, .	1.1	48
25	Classical trajectories in quantum transport at the band center of bipartite lattices with or without vacancies. Physical Review B, 2004, 69, .	1.1	3
26	Conductance fluctuations in metallic nanocontacts. Physical Review B, 2004, 70, .	1.1	1
27	First-Principles Phase-Coherent Transport in Metallic Nanotubes with Realistic Contacts. Physical Review Letters, 2003, 90, 106801.	2.9	159
28	Implementing the Keldysh formalism intoab initiomethods for the calculation of quantum transport: Application to metallic nanocontacts. Physical Review B, 2003, 67, .	1.1	76
29	Transport through an interacting system connected to leads. Journal of Physics Condensed Matter, 2003, 15, 8805-8826.	0.7	17
30	First-principles approach to electrical transport in atomic-scale nanostructures. Physical Review B, 2002, 66, .	1.1	186
31	Lattice-Spin Mechanism in Colossal Magnetoresistive Manganites. Physical Review Letters, 2002, 88, 136401.	2.9	64
32	Fullerene-based molecular nanobridges:â€ƒA first-principles study. Physical Review B, 2001, 64, .	1.1	138
33	Medium/high-field magnetoconductance in chaotic quantum dots. Journal of Physics Condensed Matter, 2001, 13, 2935-2945.	0.7	0
34	Electronic transport through C60molecules. Nanotechnology, 2001, 12, 160-163.	1.3	31
35	Effects of Fermi energy, dot size, and leads width on weak localization in chaotic quantum dots. Physical Review B, 2001, 63, .	1.1	7
36	Conductance scaling at the band center of wide wires with pure nondiagonal disorder. Physical Review B, 2001, 65, .	1.1	8

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37	Partially filled stripes in the two-dimensional Hubbard model:â€,â€,Statics and dynamics. Physical Review B, 2001, 64, .	1.1	4
38	Self-similar magnetoconductance fluctuations in quantum dots. Physical Review B, 2000, 61, 13014-13020.	1.1	22
39	Correlation decay in quantum chaotic billiards with bulk or surface disorder. Physical Review E, 1999, 60, 391-397.	0.8	3
40	Conductance as a function of temperature in the double-exchange model. Physical Review B, 1999, 59, 4170-4175.	1.1	29
41	Quantum chaos induced by scaled disorder. Physical Review E, 1999, 59, R3803-R3806.	0.8	11
42	Configuration-interaction approach to hole pairing in the two-dimensional Hubbard model. Physical Review B, 1999, 59, 14005-14016.	1.1	19
43	Magnetoconductance in Chaotic Quantum Billiards. , 1999, , 69-78.		0
44	Hole pairs in the two-dimensional Hubbard model. Europhysics Letters, 1998, 44, 229-234.	0.7	7
45	Transport regimes and critical energies in the two-dimensional Anderson model. Journal of Physics Condensed Matter, 1998, 10, 295-303.	0.7	7
46	Localization length in a random magnetic field. Physical Review B, 1998, 57, 870-878.	1.1	23
47	Chaotic behavior induced by point contacts in quantum dots. Physical Review B, 1998, 58, R10143-R10146.	1.1	10
48	Global quantum fluctuations in metallic particles. Physical Review B, 1997, 56, R7045-R7048.	1.1	2
49	Chaotic dynamics in an elastic medium with surface disorder. Physical Review E, 1997, 56, 4125-4129.	0.8	1
50	Energy fluctuations, Thouless energy, and conductance in the Anderson model in the ballistic and diffusive regimes. Physical Review B, 1997, 56, 15853-15859.	1.1	8
51	Mean free path and energy fluctuations in quantum chaotic billiards. Physical Review B, 1997, 56, 2120-2126.	1.1	14
52	Model of Quantum Chaotic Billiards: Spectral Statistics and Wave Functions in Two Dimensions. Physical Review Letters, 1996, 77, 1970-1973.	2.9	43
53	Dimensional effects in photoelectron spectra of Ag deposits on GaAs(110) surfaces. Physical Review B, 1996, 53, 6967-6970.	1.1	3
54	Wave-function and level statistics of random two-dimensional gauge fields. Physical Review B, 1996, 54, 14822-14832.	1.1	3

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55	Hartree Fock and RPA Studies of the Hubbard Model. NATO ASI Series Series B: Physics, 1995, , 295-302.	0.2	0
56	From One to Two Dimensions in the Weak Coupling Limit. NATO ASI Series Series B: Physics, 1995, , 303-306.	0.2	0
57	The Wavefunction Renormalization Constant for the One- and Two-Band Hubbard Hamiltonians in Two Dimensions. NATO ASI Series Series B: Physics, 1995, , 349-356.	0.2	0
58	Unrestricted Hartree-Fock upper bounds for the total energy of the Hubbard model on a Bethe lattice of infinite connectivity. Physical Review B, 1994, 50, 13817-13820.	1.1	0
59	Multiple-polaron description of the wave function of a single hole in Hubbard clusters of the square lattice. Physical Review B, 1993, 48, 9581-9585.	1.1	6
60	Wave-function renormalization constant for the one-band Hubbard Hamiltonian in two dimensions. Physical Review B, 1993, 48, 426-436.	1.1	9
61	Second-order self-energy of the Hubbard Hamiltonian: Absence of quasiparticle excitations near half-filling. Physical Review B, 1993, 48, 13654-13660.	1.1	13
62	Spin and Charge Excitations Induced by Holes in the Hubbard Model. Europhysics Letters, 1992, 17, 455-462.	0.7	8
63	Unrestricted Hartree-Fock study of the two-band Hamiltonian in dopedCuO2planes. Physical Review B, 1992, 46, 3562-3572.	1.1	26
64	Excitations and response functions of the doped two-dimensional Hubbard model: A random-phase-approximation anaylsis. Physical Review B, 1992, 45, 4752-4758.	1.1	14
65	Nonconventional behavior of the one-band Hubbard Hamiltonian in two dimensions. Physical Review B, 1992, 46, 3163-3166.	1.1	13
66	Analysis of the New Unrestricted Hartreeâ€Fock Vortex Solution of the Hubbard Hamiltonian in Twoâ€Dimensional Systems A Smallâ€Cluster Study. Physica Status Solidi (B): Basic Research, 1992, 173, 715-724.	0.7	5
67	Holes and Magnetic Textures in the One-and Two-Band Hamiltonians for CuO2Planes of HighTcSuperconductors. Physica Scripta, 1991, T39, 140-147.	1.2	8
68	Holes and Magnetic Textures in the Two-Dimensional Hubbard Model. Europhysics Letters, 1991, 14, 157-163.	0.7	39
69	Holes and magnetic textures in the two-dimensional Hubbard model. Physical Review B, 1991, 43, 6099-6108.	1.1	129
70	Perturbation theory of the Hubbard Hamiltonian on a 4Ã—4 cluster of the square lattice. Physical Review B, 1991, 44, 10093-10100.	1.1	13
71	Electronic structure of amorphous silicon carbide compounds. The Philosophical Magazine: Physics of Condensed Matter B, Statistical Mechanics, Electronic, Optical and Magnetic Properties, 1990, 61, 237-250.	0.6	7
72	Random-Bethe-lattice model applied to the electronic structure of amorphous and liquid silicon. Physical Review B, 1990, 42, 7193-7203.	1.1	25

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73	Surface Green function approach to the calculation of tunnelling currents in normal metal-superconductor junctions. Journal of Physics Condensed Matter, 1990, 2, 4143-4152.	0.7	1
74	Possibility of finding reliable solid-state tight-binding parameters for the Si-N bond through quantum-chemistry calculations. Physical Review B, 1989, 39, 1844-1855.	1.1	16
75	Effect of under- and overcoordination on the electronic structure of amorphous silicon. Physical Review B, 1989, 39, 3445-3448.	1.1	8
76	Minimal tight-binding Hamiltonian for semiconductors. Physical Review B, 1988, 37, 4333-4336.	1.1	10
77	Disordered alloys with a Bethe lattice structure: a study of a new mean-field approximation. Journal of Physics C: Solid State Physics, 1987, 20, 5501-5515.	1.5	14
78	Electronic structure, defect states, and optical absorption of amorphousSi1â^'xNx[0â‰¤x/(1-x)â‰¤2]. Physical Review B, 1987, 35, 9683-9692.	1.1	58
79	Dispersionless states in random Cayley trees with multiple connectivity. Physical Review B, 1987, 35, 9103-9107.	1.1	0
80	Electronic density of states on a randomly dilute Cayley tree. Journal of Physics C: Solid State Physics, 1986, 19, 6751-6760.	1.5	10
81	Electronic structure of amorphousSi0.8Al0.2. Physical Review B, 1985, 32, 3662-3668.	1.1	4
82	Scaling of the Hamiltonian and momentum in semiconductors. Physical Review B, 1984, 29, 6840-6845.	1.1	24
83	Generalized Wannier functions as a way to study the electron-phonon interaction in silicon. Physical Review B, 1984, 30, 2104-2111.	1.1	2
84	Electron correlation effects at vacancies in Si(111) unreconstructed surfaces. Physical Review B, 1984, 30, 1038-1041.	1.1	1
85	Bethe Lattices Incorporating Short-Range Disorder: Application to Hydrogenated Amorphous Silicon. Physical Review Letters, 1984, 53, 2270-2273.	2.9	25
86	Electronic structure of line defects by means of the scattering theoretical method. Application to lines of vacancies in the simple cubic lattice. Physical Review B, 1983, 28, 4419-4425.	1.1	0
87	Comment on "Critique of the tight-binding method: Ideal vacancy and surface states". Physical Review B, 1982, 26, 1059-1060.	1.1	4
88	Self-energies of phonons in heavily dopedn- andp-type silicon. Physical Review B, 1982, 26, 5658-5667.	1.1	22
89	Self-consistent calculation of the internal strain parameter of silicon. Physical Review B, 1982, 26, 5960-5962.	1.1	16
90	Absolute Hydrostatic Deformation Potentials of Tetrahedral Semiconductors. Physica Status Solidi (B): Basic Research, 1982, 113, 519-534.	0.7	89

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91	Generalized Wannier functions at interfaces: Stacking faults in silicon. Physical Review B, 1981, 24, 1006-1013.	1.1	20
92	Short- and long-range-order features in the electronic structure of bulk and surface vacancies in diamond-structure semiconductors. Physical Review B, 1981, 24, 3474-3480.	1.1	3
93	Lattice defects in III-V semiconductors. Physical Review B, 1981, 24, 6020-6028.	1.1	13
94	Electronic structure of vacancies in Si(111) unreconstructed surfaces. Physical Review B, 1981, 23, 6676-6690.	1.1	6
95	A simple tight-binding model for deep impurity levels: application to the Jahn-Teller-distorted nitrogen donor in silicon. Journal of Physics C: Solid State Physics, 1981, 14, 365-373.	1.5	9
96	Shortâ€Range Effects in Germaniumâ€Silicon. Physica Status Solidi (B): Basic Research, 1980, 99, 501-505.	0.7	0
97	A constructive definition of doubly occupied Wannier functions for metals; application to BCC Na. Journal of Physics F: Metal Physics, 1980, 10, 1167-1175.	1.6	3
98	Surface Green functions approach to planar defects and surfaces in copper: twin faults and (100) and (111) surfaces. Journal of Physics F: Metal Physics, 1980, 10, 207-223.	1.6	8
99	Self-consistent localised description of the electronic structure of semiconductors. Journal of Physics C: Solid State Physics, 1979, 12, 499-511.	1.5	25
100	Self-consistent calculation of the structural properties of silicon. Physical Review B, 1979, 20, 4251-4255.	1.1	22
101	Ab initioself-consistent calculation of silicon electronic structure by means of Wannier functions. Physical Review B, 1979, 19, 2283-2290.	1.1	59
102	Electron states at steps in transition metal surfaces: A cluster-Bethe lattice approximation. Journal of Physics F: Metal Physics, 1978, 8, 873-881.	1.6	15