Sabre Kais

List of Publications by Year in Descending Order

242 papers	4,630 citations	36 h-index	55 g-index
256 ext. papers	5,427 ext. citations	4 avg, IF	6.02 L-index

#	Paper	IF	Citations
242	Variational Quantum Circuits to Prepare Low Energy Symmetry States. *Symmetry*, **2022**, 14, 457	2.7	1
241	The Quantum Condition Space. *Advanced Quantum Technologies*, **2022**, 5, 2100158	4.3	0
240	Tribute to Dor Ben-Amotz.. *Journal of Physical Chemistry B*, **2022**, 126, 2943-2945	3.4	
239	A universal quantum circuit design for periodical functions. *New Journal of Physics*, **2021**, 23, 103022	2.9	0
238	Prime factorization using quantum variational imaginary time evolution. *Scientific Reports*, **2021**, 11, 20835	4.9	2
237	Quantum Machine-Learning for Eigenstate Filtration in Two-Dimensional Materials. *Journal of the American Chemical Society*, **2021**, 143, 18426-18445	16.4	8
236	Qubit coupled cluster singles and doubles variational quantum eigensolver ansatz for electronic structure calculations. *Quantum Science and Technology*, **2021**, 6, 015001	5.5	12
235	Time-Domain Line-Shape Analysis from 2D Spectroscopy to Precisely Determine Hamiltonian Parameters for a Photosynthetic Complex. *Journal of Physical Chemistry B*, **2021**, 125, 2812-2820	3.4	2
234	Enhancement of Photovoltaic Current through Dark States in Donor-Acceptor Pairs of Tungsten-Based Transition Metal Di-Chalcogenides. *Advanced Functional Materials*, **2021**, 31, 2100387	15.6	7
233	Quantum computing for atomic and molecular resonances. *Journal of Chemical Physics*, **2021**, 154, 194107	3.9	2
232	Implementation of Quantum Machine Learning for Electronic Structure Calculations of Periodic Systems on Quantum Computing Devices. *Journal of Chemical Information and Modeling*, **2021**,	6.1	4
231	Training Restricted Boltzmann Machines With a D-Wave Quantum Annealer. *Frontiers in Physics*, **2021**, 9,	3.9	6
230	Dimensional interpolation for metallic hydrogen. *Physical Chemistry Chemical Physics*, **2021**, 23, 7841-7848	3.6	4
229	Training a Quantum Annealing Based Restricted Boltzmann Machine on Cybersecurity Data. *IEEE Transactions on Emerging Topics in Computational Intelligence*, **2021**, 1-12	4.1	8
228	Magnetic flux noise in superconducting qubits and the gap states continuum. *Scientific Reports*, **2021**, 11, 1813	4.9	0
227	Maximal Entropy Approach for Quantum State Tomography. *PRX Quantum*, **2021**, 2,	6.1	5
226	Dimensional Interpolation for Random Walk. *Journal of Physical Chemistry A*, **2021**, 125, 7581-7587	2.8	0

225	Convergence of a Reconstructed Density Matrix to a Pure State Using the Maximal Entropy Approach. *Journal of Physical Chemistry A*, **2021**, 125, 7588-7595	2.8	2
224	Machine learning framework for quantum sampling of highly constrained, continuous optimization problems. *Applied Physics Reviews*, **2021**, 8, 041418	17.3	3
223	A quantum encryption design featuring confusion, diffusion, and mode of operation. *Scientific Reports*, **2021**, 11, 23774	4.9	2
222	Spin-momentum entanglement in a Bose-Einstein condensate. *Physical Chemistry Chemical Physics*, **2020**, 22, 25669-25674	3.6	0
221	Gap states and valley-spin filtering in transition metal dichalcogenide monolayers. *Physical Review B*, **2020**, 101,	3.3	2
220	A quantum algorithm for evolving open quantum dynamics on quantum computing devices. *Scientific Reports*, **2020**, 10, 3301	4.9	24
219	Introducing Open Boundary Conditions in Modeling Nonperiodic Materials and Interfaces: The Impact of the Periodicity Assumption **2020**, 2, 247-253		0
218	Bifacial Schottky-Junction Plasmonic-Based Solar Cell. *Energy Technology*, **2020**, 8, 1901280	3.5	0
217	Quantum Phase Estimation with Time-Frequency Qudits in a Single Photon. *Advanced Quantum Technologies*, **2020**, 3, 1900074	4.3	7
216	Qudits and High-Dimensional Quantum Computing. *Frontiers in Physics*, **2020**, 8,	3.9	18
215	Hybrid Quantum-Classical Neural Network for Calculating Ground State Energies of Molecules. *Entropy*, **2020**, 22,	2.8	5
214	Unorthodox Dimensional Interpolations for He, Li, Be Atoms and Hydrogen Molecule. *Frontiers in Physics*, **2020**, 8,	3.9	5
213	Characterization of Quantum States Based on Creation Complexity. *Advanced Quantum Technologies*, **2020**, 3, 2000043	4.3	1
212	Role of Water on the Rotational Dynamics of the Organic Methylammonium Cation: A First Principles Analysis. *Scientific Reports*, **2019**, 9, 668	4.9	10
211	Quantum computing methods for electronic states of the water molecule. *Molecular Physics*, **2019**, 117, 2069-2082	1.7	20
210	Elucidation of near-resonance vibronic coherence lifetimes by nonadiabatic electronic-vibrational state character mixing. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 18263-18268	11.5	26
209	Entanglement classifier in chemical reactions. *Science Advances*, **2019**, 5, eaax5283	14.3	5
208	Context-aware quantum simulation of a matrix stored in quantum memory. *Quantum Information Processing*, **2019**, 18, 1	1.6	2

207	Enhancing the electronic dimensionality of hybrid organic–inorganic frameworks by hydrogen bonded molecular cations. *Materials Horizons*, **2019**, 6, 1187-1196	14.4	3
206	Orientational Dynamics of Transition Dipoles and Exciton Relaxation in LH2 from Ultrafast Two-Dimensional Anisotropy. *Journal of Physical Chemistry Letters*, **2019**, 10, 270-277	6.4	7
205	Tuning the Stereoselectivity and Solvation Selectivity at Interfacial and Bulk Environments by Changing Solvent Polarity: Isomerization of Glyoxal in Different Solvent Environments. *Journal of the American Chemical Society*, **2018**, 140, 5535-5543	16.4	17
204	Dark states and delocalization: Competing effects of quantum coherence on the efficiency of light harvesting systems. *Journal of Chemical Physics*, **2018**, 148, 064304	3.9	10
203	Correlated Protein Environments Drive Quantum Coherence Lifetimes in Photosynthetic Pigment-Protein Complexes. *CheM*, **2018**, 4, 138-149	16.2	39
202	Improved Photoactivity of Pyroxene Silicates by Cation Substitutions. *ChemPhysChem*, **2018**, 19, 943-953	3.2	2
201	Direct application of the phase estimation algorithm to find the eigenvalues of the Hamiltonians. *Chemical Physics*, **2018**, 514, 87-94	2.3	9
200	Effects of Hawking Radiation on the Entropic Uncertainty in a Schwarzschild Space-Time. *Annalen Der Physik*, **2018**, 530, 1800080	2.6	39
199	Connecting bright and dark states through accidental degeneracy caused by lack of symmetry. *Journal of Chemical Physics*, **2018**, 148, 204307	3.9	2
198	Electronic Structure Calculations and the Ising Hamiltonian. *Journal of Physical Chemistry B*, **2018**, 122, 3384-3395	3.4	42
197	Double-excitation manifolds' effect on exciton transfer dynamics and the efficiency of coherent light harvesting. *Physical Chemistry Chemical Physics*, **2018**, 20, 30032-30040	3.6	10
196	Quantum Annealing for Prime Factorization. *Scientific Reports*, **2018**, 8, 17667	4.9	43
195	Quantum machine learning for electronic structure calculations. *Nature Communications*, **2018**, 9, 4195	17.4	55
194	Probing entropic uncertainty relations under a two-atom system coupled with structured bosonic reservoirs. *Quantum Information Processing*, **2018**, 17, 1	1.6	22
193	A generalized circuit for the Hamiltonian dynamics through the truncated series. *Quantum Information Processing*, **2018**, 17, 1	1.6	2
192	Pendular alignment and strong chemical binding are induced in helium dimer molecules by intense laser fields. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E9058-E9066	11.5	6
191	Canonical Schottky barrier heights of transition metal dichalcogenide monolayers in contact with a metal. *Physical Review B*, **2018**, 97,	3.3	4
190	Solar Cell Materials by Design: Hybrid Pyroxene Corner-Sharing VO Tetrahedral Chains. *ChemSusChem*, **2017**, 10, 1931-1942	8.3	8

189	Mechanism of Me-Re Bond Addition to Platinum(II) and Dioxygen Activation by the Resulting Pt-Re Bimetallic Center. *Inorganic Chemistry*, **2017**, 56, 2145-2152	5.1	9
188	Experimental evaluation of the generalized vibrational theory of G protein-coupled receptor activation. *Proceedings of the National Academy of Sciences of the United States of America*, **2017**, 114, 5595-5600	11.5	10
187	Entropic uncertainty relations for Markovian and non-Markovian processes under a structured bosonic reservoir. *Scientific Reports*, **2017**, 7, 1066	4.9	58
186	Ring flipping in heterobimetallic Re-Ir complexes and its effect on structural isomerism: Dynamic NMR and DFT study. *Journal of Organometallic Chemistry*, **2017**, 843, 62-65	2.3	1
185	Pursuit of the Kramers-Henneberger atom. *Chemical Physics Letters*, **2017**, 683, 240-246	2.5	15
184	Kinetic energy density for orbital-free density functional calculations by axiomatic approach. *International Journal of Quantum Chemistry*, **2017**, 117, e25373	2.1	7
183	An ancilla-based quantum simulation framework for non-unitary matrices. *Quantum Information Processing*, **2017**, 16, 1	1.6	5
182	Cation Effect on Hot Carrier Cooling in Halide Perovskite Materials. *Journal of Physical Chemistry Letters*, **2017**, 8, 4439-4445	6.4	71
181	Interfaces Select Specific Stereochemical Conformations: The Isomerization of Glyoxal at the Liquid Water Interface. *Journal of the American Chemical Society*, **2017**, 139, 27-30	16.4	23
180	Reduced work function of graphene by metal adatoms. *Applied Surface Science*, **2017**, 394, 98-107	6.7	32
179	The quantum chemical search for novel materials and the issue of data processing: The InfoMol project. *Journal of Computational Science*, **2016**, 15, 65-73	3.4	3
178	Quantum Computation using Arrays of N Polar Molecules in Pendular States. *ChemPhysChem*, **2016**, 17, 3714-3722	3.2	11
177	Hydrogen bonding: a mechanism for tuning electronic and optical properties of hybrid organic□inorganic frameworks. *Npj Computational Materials*, **2016**, 2,	10.9	20
176	Enhancing Intrinsic Stability of Hybrid Perovskite Solar Cell by Strong, yet Balanced, Electronic Coupling. *Scientific Reports*, **2016**, 6, 30305	4.9	33
175	Solving Set Cover with Pairs Problem using Quantum Annealing. *Scientific Reports*, **2016**, 6, 33957	4.9	8
174	Singularity of the time-energy uncertainty in adiabatic perturbation and cycloids on a Bloch sphere. *Scientific Reports*, **2016**, 6, 20824	4.9	4
173	On the divergence of gradient expansions for kinetic energy functionals in the potential functional theory. *Journal of Physics A: Mathematical and Theoretical*, **2016**, 49, 285202	2	3
172	Enhancing the carrier thermalization time in organometallic perovskites by halide mixing. *Physical Chemistry Chemical Physics*, **2016**, 18, 5219-31	3.6	55

171	Mechanism of Isomerization and Methyl Migration in Heterobimetallic Rhenium–Iridium Complexes: Experimental and DFT Study. *Organometallics*, **2016**, 35, 605-611	3.8	5
170	Hydrogen bonding and orientation effects on the accommodation of methylamine at the air-water interface. *Journal of Chemical Physics*, **2016**, 144, 214701	3.9	27
169	Analytic ab initio-based molecular interaction potential for the BrO?H2O complex. *Journal of Chemical Physics*, **2016**, 144, 204121	3.9	3
168	Dark states enhance the photocell power via phononic dissipation. *Physical Chemistry Chemical Physics*, **2016**, 18, 31845-31849	3.6	9
167	Prospects for quantum computing with an array of ultracold polar paramagnetic molecules. *Journal of Chemical Physics*, **2016**, 144, 094301	3.9	33
166	Efficient Remote Preparation of Four-Qubit Cluster-Type Entangled States with Multi-Party Over Partially Entangled Channels. *International Journal of Theoretical Physics*, **2016**, 55, 3454-3466	1.1	14
165	Hydrogen Bonding and Stability of Hybrid Organic-Inorganic Perovskites. *ChemSusChem*, **2016**, 9, 2648-2655	8.3	80
164	Theoretical limits of photovoltaics efficiency and possible improvements by intuitive approaches learned from photosynthesis and quantum coherence. *Renewable and Sustainable Energy Reviews*, **2015**, 43, 1073-1089	16.2	112
163	Hamiltonian gadgets with reduced resource requirements. *Physical Review A*, **2015**, 91,	2.6	15
162	Delocalized quantum states enhance photocell efficiency. *Physical Chemistry Chemical Physics*, **2015** , 17, 5743-50	3.6	42
161	Domain Walls Conductivity in Hybrid Organometallic Perovskites and Their Essential Role in CH3NH3PbI3 Solar Cell High Performance. *Scientific Reports*, **2015**, 5, 11467	4.9	36
160	Generalized Remote Preparation of Arbitrary m-qubit Entangled States via Genuine Entanglements. *Entropy*, **2015**, 17, 1755-1774	2.8	18
159	Revealing the role of organic cations in hybrid halide perovskite CH3NH3PbI3. *Nature Communications*, **2015**, 6, 7026	17.4	489
158	Reducing the number of ancilla qubits and the gate count required for creating large controlled operations. *Quantum Information Processing*, **2015**, 14, 891-899	1.6	1
157	The radical pair mechanism and the avian chemical compass: Quantum coherence and entanglement. *International Journal of Quantum Chemistry*, **2015**, 115, 1327-1341	2.1	21
156	An efficient descriptor model for designing materials for solar cells. *Npj Computational Materials*, **2015**, 1,	10.9	28
155	Correction to kinetic energy density functional using exactly solvable model. *Physica Scripta*, **2015**, 90, 125401	2.6	3
154	Neuroreceptor activation by vibration-assisted tunneling. *Scientific Reports*, **2015**, 5, 9990	4.9	11

153	A universal quantum circuit scheme for finding complex eigenvalues. *Quantum Information Processing*, **2014**, 13, 333-353	1.6	11
152	Using Quantum Games To Teach Quantum Mechanics, Part 2. *Journal of Chemical Education*, **2014**, 91, 423-427	2.4	3
151	Using Quantum Games To Teach Quantum Mechanics, Part 1. *Journal of Chemical Education*, **2014**, 91, 417-422	2.4	3
150	Sensitivity and entanglement in the avian chemical compass. *Physical Review E*, **2014**, 90, 042707	2.4	19
149	Influence of the intensity gradient upon HHG from free electrons scattered by an intense laser beam. *Applied Physics B: Lasers and Optics*, **2014**, 117, 95-101	1.9	
148	Introduction to Quantum Information and Computation for Chemistry. *Advances in Chemical Physics* , **2014**, 1-38		10
147	Vibrational Energy Transfer Through Molecular Chains: An Approach Toward Scalable Information Processing. *Advances in Chemical Physics*, **2014**, 371-402		
146	Dynamics of Entanglement In One- and Two-Dimensional Spin Systems. *Advances in Chemical Physics*, **2014**, 449-507		1
145	Quantum Computing Approach to Nonrelativistic and Relativistic Molecular Energy Calculations. *Advances in Chemical Physics*, **2014**, 107-136		2
144	Quantum Algorithms for Continuous Problems and Their Applications. *Advances in Chemical Physics*, **2014**, 151-178		1
143	Functional Subsystems and Strong Correlation in Photosynthetic Light Harvesting. *Advances in Chemical Physics*, **2014**, 355-370		1
142	Ultracold Molecules: Their Formation and Application to Quantum Computing. *Advances in Chemical Physics*, **2014**, 403-448		2
141	A Density-Matrix Renormalization Group Study of a One-Dimensional Incommensurate Quantum FrenkelKontorova Model. *Journal of the Physical Society of Japan*, **2014**, 83, 094605	1.5	0
140	Quantum Phase Transition in One-Dimensional Commensurate FrenkelKontorova Model. *Journal of the Physical Society of Japan*, **2014**, 83, 124603	1.5	1
139	Simulated two-dimensional electronic spectroscopy of the eight-bacteriochlorophyll FMO complex. *Journal of Chemical Physics*, **2014**, 141, 234105	3.9	6
138	Efficient method for localised functions using domain transformation and Fourier sine series. *Molecular Physics*, **2014**, 112, 762-769	1.7	3
137	An agent-based model approach to multi-phase life-cycle for contact inhibited, anchorage dependent cells. *Interdisciplinary Sciences, Computational Life Sciences*, **2014**, 6, 312-22	3.5	
136	Infrared-dressed entanglement of cold open-shell polar molecules for universal matchgate quantum computing. *New Journal of Physics*, **2014**, 16, 075001	2.9	29

135	Quantum random state generation with predefined entanglement constraint. *International Journal of Quantum Information*, **2014**, 12, 1450030	0.8	2
134	Transitionless driving on adiabatic search algorithm. *Journal of Chemical Physics*, **2014**, 141, 224108	3.9	7
133	Experimental realization of quantum algorithm for solving linear systems of equations. *Physical Review A*, **2014**, 89,	2.6	53
132	Time-dependent density functional theory of coupled electronic lattice motion in quasi-two-dimensional crystals. *Physical Review B*, **2014**, 89,	3.3	11
131	Quadratic constrained mixed discrete optimization with an adiabatic quantum optimizer. *Physical Review A*, **2014**, 90,	2.6	1
130	Multiple network alignment on quantum computers. *Quantum Information Processing*, **2014**, 13, 2653-266	1.6	3
129	Spectral Method for Solving the Nonlinear Thomas-Fermi Equation Based on Exponential Functions. *Journal of Applied Mathematics*, **2014**, 2014, 1-8	1.1	5
128	Manipulation of molecules with electromagnetic fields. *Molecular Physics*, **2013**, 111, 1648-1682	1.7	192
127	The interference effect of laser-assisted bremsstrahlung emission in Coulomb fields of two nuclei. *Journal of Applied Physics*, **2013**, 114, 124904	2.5	11
126	Quantum confinement and negative heat capacity. *Europhysics Letters*, **2013**, 104, 16004	1.6	8
125	Implementation of quantum logic gates using polar molecules in pendular states. *Journal of Chemical Physics*, **2013**, 138, 024104	3.9	42
124	Quantum algorithm and circuit design solving the Poisson equation. *New Journal of Physics*, **2013**, 15, 013021	2.9	51
123	Avalanches in the raise and peel model in the presence of a wall. *Journal of Physics A: Mathematical and Theoretical*, **2013**, 46, 265001	2	
122	Quantum criticality analysis by finite-size scaling and exponential basis sets. *Physical Review E*, **2013** , 87, 043308	2.4	9
121	Degree Distribution in Quantum Walks on Complex Networks. *Physical Review X*, **2013**, 3,	9.1	32
120	Quantum coherence and entanglement in the avian compass. *Physical Review E*, **2013**, 87, 062704	2.4	32
119	Persistence of entanglement in thermal states of spin systems. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2013**, 46, 245501	1.3	11
118	Ground-state stability and criticality of two-electron atoms with screened Coulomb potentials using the B-splines basis set. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2012**, 45, 235003	1.3	25

117	Quantum circuit design for solving linear systems of equations. *Molecular Physics*, **2012**, 110, 1675-1680	1.7	19
116	Dimensional scaling treatment with relativistic corrections for stable multiply charged atomic ions in high-frequency super-intense laser fields. *Journal of Chemical Physics*, **2012**, 136, 034114	3.9	4
115	Universal programmable quantum circuit schemes to emulate an operator. *Journal of Chemical Physics*, **2012**, 137, 234112	3.9	20
114	Finite-size scaling for quantum criticality using the finite-element method. *Physical Review E*, **2012**, 85, 036706	2.4	3
113	Population and coherence dynamics in light harvesting complex II (LH2). *Journal of Chemical Physics* , **2012**, 137, 084110	3.9	20
112	Tuning entanglement and ergodicity in two-dimensional spin systems using impurities and anisotropy. *Physical Review A*, **2012**, 85,	2.6	12
111	Multipartite quantum entanglement evolution in photosynthetic complexes. *Journal of Chemical Physics*, **2012**, 137, 074112	3.9	30
110	Scaling Mount Impossible: A Festschrift for Dudley Herschbach. *Molecular Physics*, **2012**, 110, 1537-1537	1.7	4
109	Finite Size Scaling for Criticality of the Schr□inger Equation **2011**, 91-110		
108	Entanglement of polar molecules in pendular states. *Journal of Chemical Physics*, **2011**, 134, 124107	3.9	39
107	Modified scaled hierarchical equation of motion approach for the study of quantum coherence in photosynthetic complexes. *Journal of Physical Chemistry B*, **2011**, 115, 1531-7	3.4	110
106	Group leaders optimization algorithm. *Molecular Physics*, **2011**, 109, 761-772	1.7	28
105	Entanglement of polar symmetric top molecules as candidate qubits. *Journal of Chemical Physics*, **2011**, 135, 154102	3.9	40
104	Entanglement dynamics of one-dimensional driven spin systems in time-varying magnetic fields. *Physical Review A*, **2011**, 84,	2.6	16
103	Supersymmetry identifies molecular Stark states whose eigenproperties can be obtained analytically. *New Journal of Physics*, **2011**, 13, 063036	2.9	11
102	Dynamics of entanglement in a two-dimensional spin system. *Physical Review A*, **2011**, 83,	2.6	18
101	Supersymmetric factorization yields exact solutions to the molecular Stark-effect problem for stretched states. *Physical Review A*, **2011**, 83,	2.6	10
100	Decomposition of unitary matrices for finding quantum circuits: application to molecular Hamiltonians. *Journal of Chemical Physics*, **2011**, 134, 144112	3.9	37

99	Exact calculation of entanglement in a 19-site two-dimensional spin system. *Physical Review A*, **2010**, 81,	2.6	16
98	Communications: Entanglement switch for dipole arrays. *Journal of Chemical Physics*, **2010**, 132, 121104	3.9	17
97	Study of electronic structure and dynamics of interacting free radicals influenced by water. *Journal of Chemical Physics*, **2009**, 130, 124312	3.9	14
96	Comparison study of finite element and basis set methods for finite size scaling. *Journal of Chemical Physics*, **2009**, 131, 104105	3.9	5
95	Temperature dependent electron binding in (H2O)8. *Journal of Physical Chemistry A*, **2009**, 113, 10886-90	2.8	5
94	Simulated quantum computation of global minima. *Molecular Physics*, **2009**, 107, 2015-2023	1.7	4
93	Dimensional scaling treatment of stability of simple diatomic molecules induced by superintense, high-frequency laser fields. *Journal of Chemical Physics*, **2008**, 129, 214110	3.9	15
92	Entanglement, Berry phases, and level crossings for the atomic Breit-Rabi Hamiltonian. *Physical Review A*, **2008**, 78,	2.6	22
91	Quantum algorithm for obtaining the energy spectrum of molecular systems. *Physical Chemistry Chemical Physics*, **2008**, 10, 5388-93	3.6	83
90	Finite element method for finite-size scaling in quantum mechanics. *Journal of Physical Chemistry A*, **2008**, 112, 5448-52	2.8	3
89	Nuclear-induced time evolution of entanglement of two-electron spins in anisotropically coupled quantum dot. *Molecular Physics*, **2008**, 106, 1777-1786	1.7	5
88	Critical conditions for stable dipole-bound dianions. *Journal of Chemical Physics*, **2008**, 128, 044307	3.9	6
87	DYNAMICS OF ENTANGLEMENT FOR TWO-ELECTRON ATOMS. *International Journal of Quantum Information*, **2008**, 06, 303-316	0.8	6
86	Stability conditions for hydrogen-antihydrogen□ke quasimolecules. *Physical Review A*, **2008**, 77,	2.6	2
85	Finite size scaling with gaussian basis sets. *Molecular Physics*, **2008**, 106, 203-212	1.7	4
84	Dimensional scaling for stability of two particles in a dipole field. *Chemical Physics Letters*, **2008**, 461, 127-130	2.5	9
83	Quantum Entanglement and Electron Correlation in Molecular Systems. *Israel Journal of Chemistry*, **2007**, 47, 59-65	3.4	15
82	Dimensional scaling treatment of stability of atomic anions induced by superintense, high-frequency laser fields. *Journal of Chemical Physics*, **2007**, 127, 094301	3.9	14

81	Internal entanglement amplification by external interactions. *Physical Review A*, **2007**, 76,	2.6	5
80	Frequency-dependent stabilization of He by a superintense laser field. *Physical Review A*, **2007**, 76,	2.6	14
79	Entanglement, Electron Correlation, and Density Matrices. *Advances in Chemical Physics*, **2007**, 493-535		27
78	ENTANGLEMENT AND QUANTUM PHASE TRANSITION IN A ONE-DIMENSIONAL SYSTEM OF QUANTUM DOTS WITH DISORDER. *International Journal of Quantum Information*, **2006**, 04, 827-835	0.8	4
77	New stable multiply charged negative atomic ions in linearly polarized superintense laser fields. *Journal of Chemical Physics*, **2006**, 124, 201108	3.9	18
76	Time evolution of a single spin inhomogeneously coupled to an interacting spin environment. *Journal of Chemical Physics*, **2006**, 124, 144513	3.9	14
75	Entanglement evolution of one-dimensional spin systems in external magnetic fields. *Physical Review A*, **2006**, 73,	2.6	36
74	Entanglement and electron correlation in quantum chemistry calculations. *Journal of Modern Optics* , **2006**, 53, 2543-2558	1.1	43
73	Quantum teleportation in one-dimensional quantum dots system. *Chemical Physics Letters*, **2006**, 421, 338-342	2.5	15
72	Quantum criticality at the infinite complete basis set limit: A thermodynamic analog of the Yang and Lee theorem. *Chemical Physics Letters*, **2006**, 423, 45-49	2.5	4
71	Graph theory for fused cubic clusters of water dodecamer. *Journal of Physical Chemistry A*, **2005**, 109, 12036-45	2.8	14
70	Discontinuity of Shannon information entropy for two-electron atoms. *Chemical Physics*, **2005**, 309, 127-131	1.5	42
69	Entanglement as measure of electron-electron correlation in quantum chemistry calculations. *Chemical Physics Letters*, **2005**, 413, 1-5	2.5	82
68	DYNAMICS OF ENTANGLEMENT FOR ONE-DIMENSIONAL SPIN SYSTEMS IN AN EXTERNAL TIME-DEPENDENT MAGNETIC FIELD. *International Journal of Quantum Information*, **2005**, 03, 483-500	0.8	16
67	Finite size scaling for the atomic Shannon-information entropy. *Journal of Chemical Physics*, **2004**, 121, 5611-7	3.9	45
66	Scaling of entanglement at a quantum phase transition for a two-dimensional array of quantum dots. *Physical Review A*, **2004**, 70,	2.6	14
65	Electron localization-delocalization transitions in dissociation of the C4- anion: a large-D analysis. *Journal of Chemical Physics*, **2004**, 120, 2199-207	3.9	3
64	Finite-size scaling for critical conditions for stable quadrupole-bound anions. *Journal of Chemical Physics*, **2004**, 120, 8412-9	3.9	24

63	Entanglement of formation for one-dimensional magnetic systems with defects. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2004**, 322, 137-145	2.3	29
62	SCALING OF ENTANGLEMENT IN FINITE ARRAYS OF EXCHANGE-COUPLED QUANTUM DOTS. *International Journal of Quantum Information*, **2003**, 01, 375-386	0.8	5
61	Combined effects of disorders and electron□electron interactions upon metal□insulator transition in 2D nonbipartite lattice. *Physics Letters, Section A: General, Atomic and Solid State Physics*, **2003**, 316, 265-270	2.3	2
60	Finite size scaling for critical conditions for stable dipole-bound anions. *Chemical Physics Letters*, **2003**, 372, 205-209	2.5	23
59	Metal□insulator transition in the Hubbard model on a triangular lattice with disorders: Renormalization group approach. *International Journal of Quantum Chemistry*, **2003**, 93, 360-374	2.1	2
58	Finite-Size Scaling for Atomic and Molecular Systems. *Advances in Chemical Physics*, **2003**, 1-99		39
57	On the interactions between atmospheric radicals and cloud droplets: a molecular picture of the interface. *Proceedings of the National Academy of Sciences of the United States of America*, **2003**, 100, 9686-90	11.5	35
56	Tuning the entanglement for a one-dimensional magnetic system with anisotropic coupling and impurities. *Physical Review A*, **2003**, 67,	2.6	58
55	Potential energy surface for the hydroperoxy and water (HO2□H2O) radical complex. *Molecular Physics*, **2002**, 100, 247-253	1.7	10
54	Lifetimes of metastable spherical carbon cluster dianions. *Molecular Physics*, **2002**, 100, 475-481	1.7	9
53	Finite-size scaling for Mott metal-insulator transition on a half filled nonpartite lattice. *Physical Review B*, **2002**, 66,	3.3	7
52	The repulsive Coulomb barrier along a dissociation path of the BeC(2-)(4) dianion. *Journal of the American Chemical Society*, **2002**, 124, 11723-9	16.4	17
51	Size Effects in the Electronic Properties of Finite Arrays of Exchange-Coupled Quantum Dots. *Journal of Physical Chemistry B*, **2002**, 106, 12847-12850	3.4	10
50	Real-space renormalization group study of the Hubbard model on a non-bipartite lattice. *International Journal of Molecular Sciences*, **2002**, 3, 4-16	6.3	7
49	Resonance states of atomic anions. *International Journal of Quantum Chemistry*, **2001**, 82, 255-261	2.1	13
48	Quantum criticality at the large-dimensional limit: Three-body Coulomb systems. *International Journal of Quantum Chemistry*, **2001**, 85, 307-314	2.1	7
47	Electronic isomerism: symmetry breaking and electronic phase diagrams for diatomic molecules at the large-dimension limit. *ChemPhysChem*, **2001**, 2, 434-42	3.2	7
46	Quantum critical phenomena in the Schr□inger formulation: mapping to classical lattices. *Chemical Physics Letters*, **2001**, 333, 451-458	2.5	1

45	Study of phase changes of the water octamer using parallel tempering and multihistogram methods. *Journal of Chemical Physics*, **2001**, 115, 2621-2628	3.9	43
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