

Shinichi Miura

List of Publications by Year in descending order

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53
papers

943
citations

623734

14
h-index

454955

30
g-index

53
all docs

53
docs citations

53
times ranked

610
citing authors

#	ARTICLE	IF	CITATIONS
1	A unified scheme for ab initio molecular orbital theory and path integral molecular dynamics. <i>Journal of Chemical Physics</i> , 2001, 115, 9149-9159.	3.0	126
2	An ab initio path integral molecular dynamics study of double proton transfer in the formic acid dimer. <i>Journal of Chemical Physics</i> , 1998, 109, 5290-5299.	3.0	107
3	A molecular dynamics study of sub- and supercritical water using a polarizable potential model. <i>Journal of Chemical Physics</i> , 1998, 109, 4873-4884.	3.0	101
4	Ab initio molecular orbital calculation considering the quantum mechanical effect of nuclei by path integral molecular dynamics. <i>Chemical Physics Letters</i> , 2000, 332, 396-402.	2.6	84
5	A molecular dynamics study of dielectric constant of water from ambient to sub- and supercritical conditions using a fluctuating-charge potential model. <i>Chemical Physics Letters</i> , 2001, 345, 195-200.	2.6	69
6	A path integral centroid molecular dynamics study of nonsuperfluid liquid helium-4. <i>Journal of Chemical Physics</i> , 1999, 110, 4523-4532.	3.0	55
7	Molecular Theory for the Nonequilibrium Free Energy Profile in Electron Transfer Reaction. <i>The Journal of Physical Chemistry</i> , 1995, 99, 10526-10529.	2.9	39
8	Path integral molecular dynamics for Bose-Einstein and Fermi-Dirac statistics. <i>Journal of Chemical Physics</i> , 2000, 112, 10116-10124.	3.0	32
9	Path integral hybrid Monte Carlo algorithm for correlated Bose fluids. <i>Journal of Chemical Physics</i> , 2004, 120, 2160-2168.	3.0	28
10	Rotational fluctuation of molecules in quantum clusters. II. Molecular rotation and superfluidity in OCS-doped helium-4 clusters. <i>Journal of Chemical Physics</i> , 2007, 126, 114309.	3.0	26
11	A molecular-dynamics study of the equation of state of water using a fluctuating-charge model. <i>Chemical Physics Letters</i> , 2000, 317, 414-420.	2.6	25
12	Density Fluctuation and Hydrogen-Bonded Clusters in Supercritical Water. A Molecular Dynamics Analysis Using a Polarizable Potential Model. <i>Bulletin of the Chemical Society of Japan</i> , 1999, 72, 151-162.	3.2	22
13	Rotational fluctuation of molecules in quantum clusters. I. Path integral hybrid Monte Carlo algorithm. <i>Journal of Chemical Physics</i> , 2007, 126, 114308.	3.0	21
14	Temperature Dependence of the Stability of a Hydrated Electron: An Integral Equation Study. <i>The Journal of Physical Chemistry</i> , 1994, 98, 9649-9656.	2.9	20
15	Molecular dynamics algorithms for quantum Monte Carlo methods. <i>Chemical Physics Letters</i> , 2009, 482, 165-170.	2.6	14
16	Efficient algorithms for semiclassical instanton calculations based on discretized path integrals. <i>Journal of Chemical Physics</i> , 2014, 141, 024101.	3.0	14
17	A large-scale molecular dynamics study of dynamic structure factor and dispersion relation of acoustic mode in liquid and supercritical water. <i>Fluid Phase Equilibria</i> , 2004, 226, 345-350.	2.5	13
18	A variational path integral molecular dynamics study of a solid helium-4. <i>Computer Physics Communications</i> , 2011, 182, 274-276.	7.5	13

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19	Variational path integral molecular dynamics and hybrid Monte Carlo algorithms using a fourth order propagator with applications to molecular systems. <i>Journal of Chemical Physics</i> , 2016, 145, 074114.	3.0	12
20	A generalized Ornstein-Zernike integral equation study of atomic impurities in quantum fluids. <i>Journal of Chemical Physics</i> , 2001, 115, 4161-4168.	3.0	10
21	A molecular approach to quantum fluids based on a generalized Ornstein-Zernike integral equation. <i>Journal of Chemical Physics</i> , 2001, 114, 7497-7505.	3.0	10
22	Quantum rotation of carbonyl sulfide molecules in superfluid helium clusters: a path integral hybrid Monte Carlo study. <i>Journal of Physics Condensed Matter</i> , 2005, 17, S3259-S3264.	1.8	10
23	A variational path integral molecular dynamics method applied to molecular vibrational fluctuations. <i>Molecular Simulation</i> , 2012, 38, 378-383.	2.0	8
24	Anomalous acoustic dynamics in liquid water: the origin of the low frequency mode. <i>Molecular Physics</i> , 1996, 87, 1405-1421.	1.7	7
25	Path integral molecular dynamics method based on a pair density matrix approximation: An algorithm for distinguishable and identical particle systems. <i>Journal of Chemical Physics</i> , 2001, 115, 5353-5361.	3.0	7
26	A Molecular Dynamics Study of P-RHO. T-Diagram of Sub- and Supercritical Water Using a Polarizable Potential Model. <i>Review of High Pressure Science and Technology/Koatsuryoku No Kagaku To Gijutsu</i> , 1998, 7, 1115-1117.	0.0	6
27	Path integral hybrid Monte Carlo for the bosonic many-body systems. <i>Chemical Physics Letters</i> , 1999, 308, 115-122.	2.6	6
28	Variational path integral molecular dynamics study of a water molecule. <i>Journal of Physics: Conference Series</i> , 2013, 454, 012023.	0.4	5
29	Isotope effects of ammonia umbrella flip using semiclassical instanton calculations based on discretized path integrals. <i>Chemical Physics Letters</i> , 2015, 634, 146-150.	2.6	5
30	Quantum structural fluctuation in <i>para</i> -hydrogen clusters revealed by the variational path integral method. <i>Journal of Chemical Physics</i> , 2018, 148, 102333.	3.0	5
31	First-principles study of spontaneous polarisation and water dipole moment in ferroelectric ice XI. <i>Molecular Simulation</i> , 2012, 38, 369-372.	2.0	4
32	Density matrix and eigenstates for an excess electron in water. <i>Journal of Molecular Liquids</i> , 2001, 90, 225-231.	4.9	3
33	Path Integral Hybrid Monte Carlo Study on Structure of Small Helium-4 Clusters Doped with a Linear Molecule. <i>Journal of Low Temperature Physics</i> , 2007, 148, 839-843.	1.4	3
34	Quantum rotational fluctuation of a linear molecule doped in superfluid helium clusters. <i>Journal of Physics Condensed Matter</i> , 2008, 20, 494205.	1.8	3
35	Molecular Dynamics and Hybrid Monte Carlo Algorithms for the Variational Path Integral with a Fourth-Order Propagator. <i>ACS Symposium Series</i> , 2012, , 177-186.	0.5	3
36	An efficient computational method for the implementation of a semi-classical instanton approach using discretized path integrals. <i>Journal of Physics: Conference Series</i> , 2013, 454, 012030.	0.4	3

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37	Analytical expressions on harmonic oscillators for variational path integrals. <i>Molecular Simulation</i> , 2015, 41, 808-812.	2.0	3
38	A 3D-RISM integral equation study of a hydrated dipeptide. <i>Molecular Simulation</i> , 2015, 41, 1015-1020.	2.0	3
39	Development of a generalized hybrid Monte Carlo algorithm to generate the multicanonical ensemble with applications to molecular systems. <i>Journal of Chemical Physics</i> , 2018, 149, 072322.	3.0	3
40	Molecular dynamics study on fast diffusion of hydrogen molecules in filled ice II. <i>Journal of Molecular Liquids</i> , 2019, 292, 111316.	4.9	3
41	Comparative study of 3D-RISM theory and molecular dynamics calculations for the free-energy landscape of a hydrated dipeptide. <i>Molecular Simulation</i> , 2017, 43, 1406-1411.	2.0	2
42	On computational efficiency of the hybrid Monte Carlo method applied to the multicanonical ensemble. <i>Molecular Simulation</i> , 2017, 43, 1291-1294.	2.0	2
43	Anomalous acoustic dynamics in liquid water: the origin of the low frequency mode. <i>Molecular Physics</i> , 1996, 87, 1405-1421.	1.7	2
44	Isotope effect on the structure of quantum fluid: a generalized Ornstein-Zernike analysis. <i>Chemical Physics Letters</i> , 2001, 337, 306-312.	2.6	1
45	On the solvation structure of a rare gas solute in superfluid helium-4. <i>Journal of Molecular Liquids</i> , 2005, 119, 41-46.	4.9	1
46	Potential energy landscape and thermodynamic transitions of coarse-grained protein models revealed by the multicanonical generalized hybrid Monte Carlo method. <i>Biophysics and Physicobiology</i> , 2020, 17, 14-24.	1.0	1
47	Variational Path Integral Molecular Dynamics Study of Small Para-Hydrogen Clusters. <i>Progress in Theoretical Chemistry and Physics</i> , 2012, , 427-436.	0.2	1
48	Quantum Structural Fluctuation in Molecular Hydrogen Clusters. <i>Journal of Computer Chemistry Japan</i> , 2016, 15, 136-142.	0.1	1
49	An Efficient Replica Exchange Monte Carlo Method Using the Gaussian Ensemble for First-Order Transitions. <i>Journal of the Physical Society of Japan</i> , 2022, 91, .	1.6	1
50	Path integral hybrid Monte Carlo calculation of the bosonic oscillators. <i>Journal of Molecular Liquids</i> , 2001, 90, 21-28.	4.9	0
51	Quantum Fluctuations of an OCS Molecule in Superfluid Helium-4 Clusters. <i>AIP Conference Proceedings</i> , 2008, , .	0.4	0
52	The isotope effects on a hydrogen transfer using path integral instanton method. <i>Molecular Simulation</i> , 2015, 41, 861-867.	2.0	0
53	Quantum structural fluctuations of protonated water clusters (H ₂ O) H ⁺ (n̄=1) studied by variational molecular dynamics method. <i>Journal of Molecular Liquids</i> , 2019, 284, 157-162.	4.9	0