

Rita Prosmi

List of Publications by Year in descending order

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64
papers

1,129
citations

331670

21
h-index

454955

30
g-index

64
all docs

64
docs citations

64
times ranked

468
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessment of DFT approaches in noble gas clathrate-like clusters: stability and thermodynamics. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 1475-1485.	2.8	8
2	Unraveling the Origin of Symmetry Breaking in H ₂ O@C ₆₀ Endofullerene Through Quantum Computations. <i>ChemPhysChem</i> , 2022, 23, e202200034.	2.1	6
3	A Benchmark Protocol for DFT Approaches and Data-Driven Models for Halide-Water Clusters. <i>Molecules</i> , 2022, 27, 1654.	3.8	5
4	Delving into guest-free and He-filled sI and sII clathrate hydrates: a first-principles computational study. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 13119-13129.	2.8	4
5	Quantum molecular simulations of micro-hydrated halogen anions. <i>Physical Chemistry Chemical Physics</i> , 2022, 24, 14964-14974.	2.8	2
6	Modelling interactions of cationic dimers in He droplets: microsolvation trends in He _n K ₂ ⁺ clusters. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 7849-7859.	2.8	7
7	Exploring CO ₂ @sI Clathrate Hydrates as CO ₂ Storage Agents by Computational Density Functional Approaches. <i>ChemPhysChem</i> , 2021, 22, 359-369.	2.1	11
8	Encapsulation of a Water Molecule inside C ₆₀ Fullerene: The Impact of Confinement on Quantum Features. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 5839-5848.	5.3	16
9	Computational density-functional approaches on finite-size and guest-lattice effects in CO ₂ @sII clathrate hydrate. <i>Journal of Chemical Physics</i> , 2021, 154, 044301.	3.0	10
10	Structural Stability of the CO ₂ @sI Hydrate: a Bottom-Up Quantum Chemistry Approach on the Guest-Cage and Inter-Cage Interactions. <i>ChemPhysChem</i> , 2020, 21, 2618-2628.	2.1	9
11	He Inclusion in Ice-like and Clathrate-like Frameworks: A Benchmark Quantum Chemistry Study of Guest-Host Interactions. <i>Journal of Chemical Information and Modeling</i> , 2020, 60, 3043-3056.	5.4	13
12	Finite Systems under Pressure: Assessing Volume Definition Models from Parallel-Tempering Monte Carlo Simulations. <i>Journal of Physical Chemistry A</i> , 2020, 124, 4036-4047.	2.5	6
13	The smallest proton-bound dimer H ₅ ⁺ : theoretical progress. <i>Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences</i> , 2019, 377, 20180396.	3.4	1
14	Theoretical Study of Cationic Alkali Dimers Interacting with He: Li ₂ ⁺ ⋯He and Na ₂ ⁺ ⋯He van der Waals Complexes. <i>Journal of Physical Chemistry A</i> , 2019, 123, 7814-7821.	2.5	9
15	Quantum effects on the stability of the He ₅ I ₂ van der Waals conformers. <i>Journal of Computational Chemistry</i> , 2019, 40, 2200-2206.	3.3	0
16	Assessing Intermolecular Interactions in Guest-Free Clathrate Hydrate Systems. <i>Journal of Physical Chemistry A</i> , 2018, 122, 1479-1487.	2.5	15
17	Fully Coupled Quantum Treatment of Nanoconfined Systems: A Water Molecule inside a Fullerene C ₆₀ . <i>Journal of Chemical Theory and Computation</i> , 2018, 14, 6521-6531.	5.3	13
18	A Systematic Protocol for Benchmarking Guest-Host Interactions by First-Principles Computations: Capturing CO ₂ in Clathrate Hydrates. <i>Chemistry - A European Journal</i> , 2018, 24, 9353-9363.	3.3	13

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19	Preferential stabilization of He ₂ van der Waals isomers: the effect of energetics and temperature. RSC Advances, 2017, 7, 19273-19279.	3.6	4
20	Developing time to frequency-domain descriptors for relaxation processes: Local trends. Journal of Molecular Liquids, 2017, 245, 62-70.	4.9	1
21	High Pressure Structural Transitions in Kr Clathrate-Like Clusters. Journal of Physical Chemistry C, 2016, 120, 26093-26102.	3.1	14
22	Temperature Dependence of HeBr ₂ Isomers' Stability through Rovibrational Multiconfiguration Time-Dependent Hartree Calculations. Journal of Physical Chemistry A, 2016, 120, 9458-9464.	2.5	9
23	i-TTM Model for Ab Initio-Based Ion-Water Interaction Potentials. 1. Halide-Water Potential Energy Functions. Journal of Physical Chemistry B, 2016, 120, 1822-1832.	2.6	61
24	Vibrational Calculations of Higher-Order Weakly Bound Complexes: The He _{3,4} I ₂ Cases. Journal of Physical Chemistry A, 2015, 119, 12736-12741.	2.5	2
25	Quantum Features of Anionic Species He [*] and He ₂ [*] in Small He _N Clusters. Journal of Physical Chemistry A, 2015, 119, 11574-11582.	2.5	5
26	Quantum Dynamics of Carbon Dioxide Encapsulated in the Cages of the sI Clathrate Hydrate: Structural Guest Distributions and Cage Occupation. Journal of Physical Chemistry C, 2015, 119, 3945-3956.	3.1	21
27	Thermodynamics of Water Dimer Dissociation in the Primary Hydration Shell of the Iodide Ion with Temperature-Dependent Vibrational Predissociation Spectroscopy. Journal of Physical Chemistry A, 2015, 119, 1859-1866.	2.5	37
28	Reactive scattering calculations for ⁸⁷ Rb+ ⁸⁷ RbHe [†] Rb ₂ (3 ¹ Σ ^{u+} ,v)+He from ultralow to intermediate energies. Journal of Chemical Physics, 2015, 142, 164304.	3.0	8
29	Theoretical predictions on the role of the internal H ₃ ⁺ rotation in the IR spectra of the H ₅ ⁺ and D ₅ ⁺ cations. Physical Chemistry Chemical Physics, 2014, 16, 6217.	2.8	9
30	Energetics and Solvation Structure of a Dihalogen Dopant (I ₂) in ⁴ He Clusters. Journal of Physical Chemistry A, 2014, 118, 6492-6500.	2.5	15
31	First-principles simulations of vibrational states and spectra for and clusters using multiconfiguration time-dependent Hartree approach. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2014, 119, 26-33.	3.9	6
32	Simulating liquid water for determining its structural and transport properties. Applied Radiation and Isotopes, 2014, 83, 115-121.	1.5	4
33	A DFT-based potential energy surface for the <i>H₃</i> cluster. International Journal of Quantum Chemistry, 2013, 113, 651-655.	2.0	8
34	MULTIMODE calculations of the infrared spectra of H ₇ ⁺ and D ₇ ⁺ using ab initio potential energy and dipole moment surfaces. Theoretical Chemistry Accounts, 2013, 132, 1.	1.4	14
35	Theoretical Investigation of the Infrared Spectra of the H ₅ ⁺ and D ₅ ⁺ Cations. Journal of Physical Chemistry A, 2013, 117, 9518-9524.	2.5	24
36	Quantum Mechanical Characterization of the He ₄ ICl Weakly Bound Complex. Journal of Physical Chemistry A, 2013, 117, 7217-7223.	2.5	6

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37	Full-dimensional quantum calculations of the dissociation energy, zero-point, and 10 K properties of $\{m H\}_{7}^{+}$ $\{m D\}_{7}^{+}$ clusters using an <i>ab initio</i> potential energy surface. Journal of Chemical Physics, 2013, 139, 024308.	3.0	9
38	Quantum-dynamics study of the $\{m H\}_{5}^{+}$ cluster: Full dimensional benchmark results on its vibrational states. Journal of Chemical Physics, 2012, 136, 104302.	3.0	26
39	Vibrational dynamics of the $\{m H\}_{5}^{+}$ and its isotopologues from multiconfiguration time-dependent Hartree calculations. Journal of Chemical Physics, 2012, 137, 214308.	3.0	23
40	Full-dimensional (15-dimensional) <i>ab initio</i> analytical potential energy surface for the $\{m H\}_{7}^{+}$ cluster. Journal of Chemical Physics, 2012, 136, 224302.	3.0	15
41	An <i>ab initio</i> Study of the E_{3}^{-} State of the Iodine Molecule. Journal of Physical Chemistry A, 2012, 116, 2366-2370.	2.5	14
42	Theoretical investigation of the $He\hat{\epsilon}I_2(E_3^{-})$ ion-pair state: <i>ab initio</i> intermolecular potential and vibrational levels. Journal of Chemical Physics, 2012, 137, 034303.	3.0	19
43	Theoretical simulations of the vibrational predissociation spectra of H_5^{+} and D_5^{+} clusters. Theoretical Chemistry Accounts, 2012, 131, 1.	1.4	10
44	A theoretical characterization of multiple isomers of the He_2I_2 complex. Chemical Physics, 2012, 399, 39-45.	1.9	12
45	Internal Proton Transfer and H_2 Rotations in the H_5^{+} Cluster: A Marked Influence on Its Thermal Equilibrium State. Journal of Physical Chemistry A, 2011, 115, 2483-2488.	2.5	30
46	<i>Ab initio</i> characterization of the $Ne\hat{\epsilon}I_2$ van der Waals complex: Intermolecular potentials and vibrational bound states. Journal of Chemical Physics, 2011, 134, 214304.	3.0	24
47	Global potential energy surface for the ground electronic state of H: A DFT approach. International Journal of Quantum Chemistry, 2011, 111, 368-374.	2.0	12
48	Infrared spectrum of H_5^{+} and D_5^{+} clusters. http://www.w3.org/1998/Math/MathML $\langle m H \rangle_5^{+}$ and $\langle m D \rangle_5^{+}$	2.5	19
49	Full-dimensional multi configuration time dependent Hartree calculations of the ground and vibrationally excited states of $He_2, 3Br_2$ clusters. Journal of Chemical Physics, 2011, 135, 054303.	3.0	9
50	Toward a realistic density functional theory potential energy surface for the H_5^{+} cluster. Journal of Chemical Physics, 2010, 133, 054303.	3.0	24
51	Structuring a Quantum Solvent around a Weakly Bound Dopant: The $He\hat{\epsilon}Cs_2$ (E_{3}^{-}) Complex. Journal of Physical Chemistry A, 2009, 113, 14718-14729.	2.5	23
52	Intermolecular <i>Ab Initio</i> Potential and Spectroscopy of the Ground State of He_2 Complex Revisited. Journal of Physical Chemistry A, 2009, 113, 5754-5762.	2.5	40
53	<i>Ab initio</i> potential energy surface and spectrum of the $B(1^3)$ state of the He_2 complex. Journal of Chemical Physics, 2007, 126, 204301.	3.0	31
54	<i>ab initio</i> vibrational predissociation dynamics of $He\hat{\epsilon}I_2(B)$ complex. Journal of Chemical Physics, 2007, 126, 244314.	3.0	31

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55	A theoretical study of He ₂ ICl van der Waals cluster. <i>Journal of Chemical Physics</i> , 2006, 125, 014313.	3.0	34
56	Ab initio calculations, potential representation and vibrational dynamics of He ₂ Br ₂ van der Waals complex. <i>Journal of Chemical Physics</i> , 2005, 122, 044305.	3.0	36
57	HeBr ₂ complex: ground-state potential and vibrational dynamics from ab initio calculations. <i>Molecular Physics</i> , 2004, 102, 2277-2283.	1.7	37
58	Three-Dimensional ab Initio Potential and Ground State Dynamics of the HeI ₂ Complex. <i>Journal of Physical Chemistry A</i> , 2004, 108, 6065-6071.	2.5	36
59	Structures and Energetics of Clusters (n = 5 to 11). <i>Journal of Physical Chemistry A</i> , 2003, 107, 4768-4772.	2.5	42
60	CCSD(T) intermolecular potential between He atom and ClF molecule: Comparison with experiment. <i>Journal of Chemical Physics</i> , 2003, 119, 4216-4222.	3.0	36
61	He ⁷⁹ Br ₂ B _{v=8} X _{v=3} =0 excitation spectrum: Ab initio prediction and spectroscopic manifestation of a linear isomer. <i>Journal of Chemical Physics</i> , 2002, 117, 6117-6120.	3.0	37
62	The van der Waals potential energy surfaces and structures of He ⁴¹ ICl and Ne ⁴¹ ICl clusters. <i>Journal of Chemical Physics</i> , 2002, 117, 7017-7023.	3.0	51
63			