

# Feng Xie

## List of Publications by Year in descending order

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66  
papers

522  
citations

623734

14  
h-index

752698

20  
g-index

67  
all docs

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docs citations

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times ranked

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#	ARTICLE	IF	CITATIONS
1	Experimental investigation of the Cs $2\hat{a}^{\hat{a}}\hat{\epsilon}\%{\hat{1}}3u+$ triplet ground state: Multiparameter Morse long range potential analysis and molecular constants. Journal of Chemical Physics, 2009, 130, 051102.	3.0	45
2	Span shift and extension of quantum microwave electrometry with Rydberg atoms dressed by an auxiliary microwave field. Physical Review A, 2021, 103, .	2.5	28
3	Experimental investigation of the R85b2 $\hat{a}^{\hat{a}}\hat{\epsilon}\%{\hat{1}}3u+$ triplet ground state: Multiparameter Morse long range potential analysis. Journal of Chemical Physics, 2009, 131, 094505.	3.0	27
4	The <math>\langle i>g</i> (33\hat{1}\langle i>g</i> ) states. Journal of Chemical Physics, 2008, 128, 204313.	2.6	26
5	New experimental data on the K2 state analyzed with the multi-parameter approach. Journal of Molecular Spectroscopy, 2005, 234, 41-52.	1.2	25
6	Experimental research on the radioactive dust in the primary loop of HTR-10. Nuclear Engineering and Design, 2017, 324, 372-378.	1.7	24
7	Frequency stabilization method for transition to a Rydberg state using Zeeman modulation. Applied Optics, 2020, 59, 2108.	1.8	18
8	Observation and calculation of the Cs $2\hat{a}^{\hat{a}}\hat{\epsilon}\%{\hat{2}}^{\hat{1}}1g3$ and $b\hat{1}u3$ states. Journal of Chemical Physics, 2008, 128, 204313.	3.0	17
9	Joint analysis of the Cs $2\hat{a}^{\hat{a}}\hat{\epsilon}\%{\hat{a}}^3\Sigma_u^+$ and $1\langle i>g</i> (33\hat{1}\langle i>g</i> ) states. Journal of Chemical Physics, 2011, 135, 024303.$	3.0	17
10	Experimental study on the content and distribution of key nuclides in an irradiated graphite sphere of HTR-10. Nuclear Engineering and Design, 2017, 323, 39-45.	1.7	16
11	Study of tritium in the primary loop of HTR-10: Experiment and theoretical calculations. Progress in Nuclear Energy, 2018, 105, 99-105.	2.9	16
12	Dispersive microwave electrometry using Zeeman frequency modulation spectroscopy of electromagnetically induced transparency in Rydberg atoms. Applied Optics, 2020, 59, 8253.	1.8	16
13	Using amplitude modulation of the microwave field to improve the sensitivity of Rydberg-atom based microwave electrometry. AIP Advances, 2021, 11, .	1.3	16
14	A comprehensive study on source terms in irradiated graphite spheres of HTR-10. Annals of Nuclear Energy, 2018, 122, 352-365.	1.8	15
15	Transfer phase of microwave to beat amplitude in a Rydberg atom-based mixer by Zeeman modulation. Journal of Physics B: Atomic, Molecular and Optical Physics, 2021, 54, 165501.	1.5	15
16	The K2 $23\hat{1}g$ State: New Observations and Analysis. Journal of Physical Chemistry A, 2006, 110, 11260-11264.	2.5	14
17	Source Term Analysis of Tritium in HTR-10. Fusion Science and Technology, 2017, 71, 671-678.	1.1	14
18	A method for predicting the molar heat capacities of HBr and HCl gases based on the full set of molecular rovibrational energies. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 267, 120564.	3.9	14

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19	Re-examination of the Cs <sub>2</sub> ground singlet X <sup>1</sup> Σ <sup>+</sup> g and triplet a <sup>3</sup> Σ <sup>+</sup> u states. Journal of Chemical Physics, 2017, 147, 104301.	3.0	12
20	Source Term Study on Tritium in HTR-PM: Theoretical Calculations and Experimental Design. Science and Technology of Nuclear Installations, 2017, 2017, 1-11.	0.8	11
21	Organic Compounds of Actinyls: Systematic Computational Assessment of Structural and Topological Properties in [AnO <sub>2</sub> (C <sub>2</sub> O <sub>4</sub> ) <sub>n</sub> ] <sup>2-2n</sup> (An) Tj <sup>40</sup> ETQq1 1 0:78431	1.0	11
22	A joint data and model driven method for study diatomic vibrational spectra including dissociation behavior. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2020, 239, 118363.	3.9	10
23	Simulations of the dust behavior in the sampling and dust filters in the primary loop of HTR-10. Nuclear Engineering and Design, 2018, 340, 112-121.	1.7	9
24	Observations and analysis of the K <sub>2</sub> state using the infrared infrared double resonance spectroscopy. Chemical Physics, 2007, 332, 10-16.	1.9	8
25	Source Term Analysis of the Irradiated Graphite in the Core of HTR-10. Science and Technology of Nuclear Installations, 2017, 2017, 1-6.	0.8	8
26	Combined analysis of the PFOODR data on the a <sup>3</sup> Σ <sup>+</sup> u, 2 <sup>3</sup> Σ <sup>+</sup> g, 2 <sup>3</sup> Σ <sup>+</sup> g, 3 <sup>3</sup> Σ <sup>+</sup> g, and 4 <sup>3</sup> Σ <sup>+</sup> g states of the K <sub>2</sub> molecule. Optics and Spectroscopy (English Translation of Optika i Spektroskopiya), 2007, 103, 723-727.	0.6	7
27	altimg="si14.gif" display="inline" overflow="scroll" width="0.35em"/>		
28	The effect of the Doppler mismatch in microwave electrometry using Rydberg electromagnetically induced transparency and Autler-Townes splitting. Journal of Physics B: Atomic, Molecular and Optical Physics, 2022, 55, 075501.	1.5	6
29	Analysis of the hyperfine structure of the Cs <sub>2</sub> $X^1\Sigma_g^+$ state. Journal of Quantitative Spectroscopy and Radiative Transfer, 2020, 250, 107037.		
30	Can water continuously oxidize the PuO molecule? Mechanisms, topological analysis and rate constant calculations. RSC Advances, 2018, 8, 4295-4303.	3.6	4
31	Experimental Investigation of <sup>14</sup> C in the Primary Coolant of the 10 MW High Temperature Gas-Cooled Reactor. Radiocarbon, 2019, 61, 867-884.	1.8	4
32	Development of a pair potential for Ta-He system. Computational Materials Science, 2019, 156, 268-272.	3.0	4
33	Graphite dust emission evaluation in an HTGR depressurization accident. Annals of Nuclear Energy, 2020, 147, 107664.	1.8	4
34	Combining ab initio and machine learning method to improve the prediction of diatomic vibrational energies. International Journal of Quantum Chemistry, 2022, 122, .	2.0	4
35	Collisional Line Assignments and Hyperfine Structure Interpretation in Cs <sub>2</sub> 2 <sup>3</sup> Σ <sup>+</sup> g State. Chinese Journal of Chemical Physics, 2013, 26, 13-19.	1.3	3
36	Renewed analysis of the hyperfine structure of the Na <sub>2</sub> 1 <sup>3</sup> Σ <sup>+</sup> g state. AIP Advances, 2018, 8, 125322.	1.3	3

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37	The formation mechanism of uranium and thorium hydride phosphorus: a systematically theoretical study. RSC Advances, 2019, 9, 17119-17128.	3.6	3
38	Structural optimization and melting behavior investigation of Pd-Ag bimetallic nanoparticles by molecular simulations. Computational Materials Science, 2020, 176, 109520.	3.0	3
39	Summary of Tritium Source Term Study in 10 MW High Temperature Gas-Cooled Test Reactor. Fusion Science and Technology, 2020, 76, 513-525.	1.1	3
40	Development of an interatomic potential for Fe-He by neural network. Computational Materials Science, 2021, 196, 110549.	3.0	3
41	Design of the Process and Effluent Radiation Monitoring System of HTR-PM. , 2016, , .		2
42	A Comprehensive Study of the 14C Source Term in the 10 MW High-Temperature Gas-Cooled Reactor. Radiocarbon, 2019, 61, 1169-1183.	1.8	2
43	Actinide Endohedral and Exohedral Cubic Siloxanes: An(IV)@(HSiO <sub>1.5</sub> ) <sub>8</sub> and An(IV)&(RSiO <sub>1.5</sub> ) <sub>8</sub> (An = U, Np, Pu; R = H, Cl, OH). European Journal of Inorganic Chemistry, 2019, 2019, 4660-4667.	2.0	2
44	Actinyl-Carboxylate Complexes [AnO <sub>2</sub> (COOH) <sub>n</sub> ](H <sub>2</sub> O) <sub>m</sub> (An = U, Np, Pu, and Am; n = 1, 2, 4; 2n + m = 6): Electronic Structures, Interaction Features, and the Potential to Adsorbents toward Cs Ion. ACS Omega, 2020, 5, 31974-31983.	3.5	2
45	Spectroscopy learning: A machine learning method for study diatomic vibrational spectra including dissociation behavior. MethodsX, 2020, 7, 101127.	1.6	2
46	Study on potential energy curves and ro-vibrational energies of DT, HT and T2 molecules. Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2021, 260, 119913.	3.9	2
47	Design of the Sampling Measurement and Radiochemistry Lab in the Nuclear Island of HTR-PM. , 2018, , .		2
48	ICONE23-1479 THE RESEARCH PROGRESS ON THE RADIOACTIVE GRAPHITE DUST IN HTR-10. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2015, 2015.23, _ICONE23-1-_ICONE23-1.	0.0	2
49	ICONE23-1697 STUDY ON THE PRODUCTION MECHANISM OF CO-60 IN THE PRIMARY LOOP OF HTR-10. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2015, 2015.23, _ICONE23-1-_ICONE23-1.	0.0	2
50	A Reform in the Helium Purification System of the HTR-10: <sup>3</sup> H Dose Rate Measurement and Suggestions for Decommissioning. , 2013, , .		1
51	Design of the Online Gross <sup>3</sup> H Monitoring Instrument at the Exit of the Helium Purification System in HTR-PM. Science and Technology of Nuclear Installations, 2018, 2018, 1-12.	0.8	1
52	Ab initio calculation on spectroscopic properties and radiative lifetimes of low-lying excited states of NaK. Chinese Journal of Chemical Physics, 2019, 32, 667-673.	1.3	1
53	Monte Carlo simulation of activity concentration measurement of primary coolant of high-temperature gas-cooled pebble-bed modular reactor. Annals of Nuclear Energy, 2020, 142, 107418.	1.8	1
54	Ab initio predictions for the reaction mechanism and orbital topological properties of the formation of Neptunimine, Plutonimine, and its side products. Journal of Molecular Modeling, 2020, 26, 163.	1.8	1

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55	Analysis of the hyperfine structure of the $13\hat{1}^{\text{g}}$ , $23\hat{1}^{\text{g}}$ , and $33\hat{1}^{\text{g}}$ states of $6\text{Li}7\text{Li}$ . Journal of Quantitative Spectroscopy and Radiative Transfer, 2021, 270, 107665.	2.3	1
56	Study on the representativeness of airborne effluent sampling in the stack of a high-temperature gas-cooled pebble-bed modular reactor. Annals of Nuclear Energy, 2022, 165, 108680.	1.8	1
57	A data- and model-driven strategy for the evaluation of the experimental transition lines: Theoretical prediction for the ground state of $12\text{C}16\text{O}$ . Spectrochimica Acta - Part A: Molecular and Biomolecular Spectroscopy, 2022, 264, 120278.	3.9	1
58	Relabeling of the K2 Rydberg States. Chinese Journal of Chemical Physics, 2007, 20, 339-344.	1.3	0
59	Reaction mechanism of synthetic thorium sulfides: theoretical calculation study. Journal of Molecular Modeling, 2020, 26, 123.	1.8	0
60	RESOLVED FLUORESCENCE SPECTROSCOPY OF THE $\text{Cs}2\ 33\hat{1}^{\text{g}}\ \hat{\text{a}}\text{t}'\ \text{b}3\hat{1}^{\text{u}}$ TRANSITION. , 2011, , .		0
61	EXPERIMENTAL DESIGN ON PERFORMANCE IMPROVEMENT OF THE HELIUM PURIFICATION SYSTEM OF HTR-10. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2019, 2019.27, 1581.	0.0	0
62	THE TRANSPORT BEHAVIOR OF TYPICAL METALLIC FISSION PRODUCTS IN HTGRS. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2019, 2019.27, 1300.	0.0	0
63	A SUMMARY OF TRITIUM BEHAVIOR IN NUCLEAR POWER PLANTS. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2019, 2019.27, 1594.	0.0	0
64	A SUMMARY OF THE CLEARANCE PRACTICE OF THE SPENT RESIN FROM NUCLEAR POWER PLANTS IN CHINA. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2019, 2019.27, 1599.	0.0	0
65	EVALUATION OF SOURCE TERMS OF FISSION PRODUCTS IN GASEOUS EFFLUENTS AND RECOMMENDATIONS FOR EFFLUENT MONITORING OF NUCLEAR POWER PLANTS. The Proceedings of the International Conference on Nuclear Engineering (ICONE), 2019, 2019.27, 1196.	0.0	0
66	Two-photon Raman transition channels of NaCs predicted from <i>ab initio</i> calculations. Physical Review A, 2022, 105, .	2.5	0