

# Yaolong Zhang

## List of Publications by Year in descending order

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27  
papers

1,003  
citations

361045

20  
h-index

525886

27  
g-index

27  
all docs

27  
docs citations

27  
times ranked

542  
citing authors

#	ARTICLE	IF	CITATIONS
1	REANN: A PyTorch-based end-to-end multi-functional deep neural network package for molecular, reactive, and periodic systems. <i>Journal of Chemical Physics</i> , 2022, 156, 114801.	1.2	19
2	Accelerating atomistic simulations with piecewise machine-learned <i>ab Initio</i> potentials at a classical force field-like cost. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 1815-1821.	1.3	24
3	Searching Configurations in Uncertainty Space: Active Learning of High-Dimensional Neural Network Reactive Potentials. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 2691-2701.	2.3	39
4	A Machine-Learning Protocol for Ultraviolet Protein-Backbone Absorption Spectroscopy under Environmental Fluctuations. <i>Journal of Physical Chemistry B</i> , 2021, 125, 6171-6178.	1.2	13
5	Photoinduced Desorption Dynamics of CO from Pd(111): A Neural Network Approach. <i>Journal of Chemical Theory and Computation</i> , 2021, 17, 4648-4659.	2.3	15
6	Neural Network Representations for Studying <i>Gas-Surface</i> Reaction Dynamics: Beyond the <i>Born-Oppenheimer</i> Static Surface Approximation. <i>Chinese Journal of Chemistry</i> , 2021, 39, 2917-2930.	2.6	10
7	Towards bridging the structure gap in heterogeneous catalysis: the impact of defects in dissociative chemisorption of methane on Ir surfaces. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 4376-4385.	1.3	31
8	Determining the Effect of Hot Electron Dissipation on Molecular Scattering Experiments at Metal Surfaces. <i>Jacs Au</i> , 2021, 1, 164-173.	3.6	33
9	Physically Motivated Recursively Embedded Atom Neural Networks: Incorporating Local Completeness and Nonlocality. <i>Physical Review Letters</i> , 2021, 127, 156002.	2.9	32
10	Accurate Machine Learning Prediction of Protein Circular Dichroism Spectra with Embedded Density Descriptors. <i>Jacs Au</i> , 2021, 1, 2377-2384.	3.6	16
11	Symmetry-Adapted High Dimensional Neural Network Representation of Electronic Friction Tensor of Adsorbates on Metals. <i>Journal of Physical Chemistry C</i> , 2020, 124, 186-195.	1.5	45
12	Dynamics of H <sub>2</sub> O Adsorption on Pt(110)-(1 × 2) Based on a Neural Network Potential Energy Surface. <i>Journal of Physical Chemistry C</i> , 2020, 124, 23190-23199.	1.5	16
13	Efficient and Accurate Simulations of Vibrational and Electronic Spectra with Symmetry-Preserving Neural Network Models for Tensorial Properties. <i>Journal of Physical Chemistry B</i> , 2020, 124, 7284-7290.	1.2	51
14	Unified and transferable description of dynamics of H <sub>2</sub> dissociative adsorption on multiple copper surfaces <i>via</i> machine learning. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 13958-13964.	1.3	37
15	Efficient Construction of Excited-State Hessian Matrices with Machine Learning Accelerated Multilayer Energy-Based Fragment Method. <i>Journal of Physical Chemistry A</i> , 2020, 124, 5684-5695.	1.1	27
16	New Perspectives on CO <sub>2</sub> –Pt(111) Interaction with a High-Dimensional Neural Network Potential Energy Surface. <i>Journal of Physical Chemistry C</i> , 2020, 124, 5174-5181.	1.5	37
17	Automatically growing global reactive neural network potential energy surfaces: A trajectory-free active learning strategy. <i>Journal of Chemical Physics</i> , 2020, 152, 154104.	1.2	40
18	Embedded Atom Neural Network Potentials: Efficient and Accurate Machine Learning with a Physically Inspired Representation. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 4962-4967.	2.1	157

#	ARTICLE	IF	CITATIONS
19	Hot-electron effects during reactive scattering of H <sub>2</sub> from Ag(111): the interplay between mode-specific electronic friction and the potential energy landscape. <i>Chemical Science</i> , 2019, 10, 1089-1097.	3.7	35
20	Strong Vibrational Relaxation of NO Scattered from Au(111): Importance of the Adiabatic Potential Energy Surface. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 5969-5974.	2.1	35
21	Hot electron effects during reactive scattering of H <sub>2</sub> from Ag(111): assessing the sensitivity to initial conditions, coupling magnitude, and electronic temperature. <i>Faraday Discussions</i> , 2019, 214, 105-121.	1.6	15
22	Bridging the Gap between Direct Dynamics and Globally Accurate Reactive Potential Energy Surfaces Using Neural Networks. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1185-1191.	2.1	65
23	Adiabatic and nonadiabatic energy dissipation during scattering of vibrationally excited CO from Au(111). <i>Physical Review B</i> , 2019, 100, .	1.1	23
24	Constructing High-Dimensional Neural Network Potential Energy Surfaces for Gas-Surface Scattering and Reactions. <i>Journal of Physical Chemistry C</i> , 2018, 122, 1761-1769.	1.5	78
25	Vibrational control of selective bond cleavage in dissociative chemisorption of methanol on Cu(111). <i>Nature Communications</i> , 2018, 9, 4039.	5.8	30
26	Dissociative Chemisorption of O <sub>2</sub> on Al(111): Dynamics on a Correlated Wave-Function-Based Potential Energy Surface. <i>Journal of Physical Chemistry Letters</i> , 2018, 9, 3271-3277.	2.1	40
27	Dissociative chemisorption of methane on Ni(111) using a chemically accurate fifteen dimensional potential energy surface. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 30540-30550.	1.3	40