

# Jianmin Tao

## List of Publications by Citations

**Source:** <https://exaly.com/author-pdf/287235/jianmin-tao-publications-by-citations.pdf>

**Version:** 2024-04-19

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

55  
papers

9,514  
citations

25  
h-index

58  
g-index

58  
ext. papers

10,421  
ext. citations

3.7  
avg, IF

6.04  
L-index

#	Paper	IF	Citations
55	Climbing the density functional ladder: nonempirical meta-generalized gradient approximation designed for molecules and solids. <i>Physical Review Letters</i> , <b>2003</b> , 91, 146401	7.4	4737
54	Comparative assessment of a new nonempirical density functional: Molecules and hydrogen-bonded complexes. <i>Journal of Chemical Physics</i> , <b>2003</b> , 119, 12129-12137	3.9	1724
53	Prescription for the design and selection of density functional approximations: more constraint satisfaction with fewer fits. <i>Journal of Chemical Physics</i> , <b>2005</b> , 123, 62201	3.9	658
52	Meta-generalized gradient approximation: explanation of a realistic nonempirical density functional. <i>Journal of Chemical Physics</i> , <b>2004</b> , 120, 6898-911	3.9	355
51	Tests of a ladder of density functionals for bulk solids and surfaces. <i>Physical Review B</i> , <b>2004</b> , 69,	3.3	313
50	Density functional with full exact exchange, balanced nonlocality of correlation, and constraint satisfaction. <i>Physical Review A</i> , <b>2008</b> , 78,	2.6	187
49	Accurate Semilocal Density Functional for Condensed-Matter Physics and Quantum Chemistry. <i>Physical Review Letters</i> , <b>2016</b> , 117, 073001	7.4	100
48	Test of a nonempirical density functional: short-range part of the van der Waals interaction in rare-gas dimers. <i>Journal of Chemical Physics</i> , <b>2005</b> , 122, 114102	3.9	99
47	Exact-exchange energy density in the gauge of a semilocal density-functional approximation. <i>Physical Review A</i> , <b>2008</b> , 77,	2.6	85
46	Meta-generalized gradient approximation for the exchange-correlation hole with an application to the jellium surface energy. <i>Physical Review B</i> , <b>2006</b> , 73,	3.3	64
45	Performance of meta-GGA Functionals on General Main Group Thermochemistry, Kinetics, and Noncovalent Interactions. <i>Journal of Chemical Theory and Computation</i> , <b>2013</b> , 9, 355-63	6.4	62
44	Van der waals coefficients for nanostructures: fullerenes defy conventional wisdom. <i>Physical Review Letters</i> , <b>2012</b> , 109, 233203	7.4	62
43	Energies of organic molecules and atoms in density functional theory. <i>International Journal of Quantum Chemistry</i> , <b>2005</b> , 101, 506-511	2.1	62
42	Accurate van der Waals coefficients from density functional theory. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2012</b> , 109, 18-21	11.5	61
41	Long-range van der Waals attraction and alkali-metal lattice constants. <i>Physical Review B</i> , <b>2010</b> , 81,	3.3	61
40	Nonempirical construction of current-density functionals from conventional density-functional approximations. <i>Physical Review Letters</i> , <b>2005</b> , 95, 196403	7.4	56
39	Physical adsorption: theory of van der Waals interactions between particles and clean surfaces. <i>Physical Review Letters</i> , <b>2014</b> , 112, 106101	7.4	44

38	One-parameter optimization of a nonempirical meta-generalized-gradient-approximation for the exchange-correlation energy. <i>Physical Review A</i> , <b>2007</b> , 76,	2.6	37
37	How correlation suppresses density fluctuations in the uniform electron gas of one, two, or three dimensions. <i>International Journal of Quantum Chemistry</i> , <b>2000</b> , 77, 819-830	2.1	37
36	Assessment of the Tao-Mo nonempirical semilocal density functional in applications to solids and surfaces. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	32
35	Uniform electron gas from the Colle-Salvetti functional: Missing long-range correlations. <i>Physical Review A</i> , <b>2001</b> , 63,	2.6	31
34	Performance of a nonempirical meta-generalized gradient approximation density functional for excitation energies. <i>Journal of Chemical Physics</i> , <b>2008</b> , 128, 084110	3.9	30
33	Ice phases under ambient and high pressure: Insights from density functional theory. <i>Physical Review B</i> , <b>2013</b> , 87,	3.3	26
32	Exchange energy density of an atom as a functional of the electron density. <i>Journal of Chemical Physics</i> , <b>2001</b> , 115, 3519-3530	3.9	26
31	Properties of the exchange hole under an appropriate coordinate transformation. <i>Journal of Chemical Physics</i> , <b>2003</b> , 119, 6457-6464	3.9	24
30	Communication: Non-additivity of van der Waals interactions between nanostructures. <i>Journal of Chemical Physics</i> , <b>2014</b> , 141, 141101	3.9	23
29	Performance of a nonempirical density functional on molecules and hydrogen-bonded complexes. <i>Journal of Chemical Physics</i> , <b>2016</b> , 145, 234306	3.9	23
28	Visualizing atomic sizes and molecular shapes with the classical turning surface of the Kohn-Sham potential. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , <b>2018</b> , 115, E11578-E11585	11.5	22
27	Frequency-dependent dielectric function of semiconductors with application to physisorption. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	18
26	Semilocal exchange hole with an application to range-separated density functionals. <i>Physical Review B</i> , <b>2017</b> , 95,	3.3	18
25	An accurate MGGA-based hybrid exchange-correlation functional. <i>Journal of Chemical Physics</i> , <b>2002</b> , 116, 2335-2337	3.9	18
24	Screened van der Waals correction to density functional theory for solids. <i>Physical Review Materials</i> , <b>2017</b> , 1,	3.2	18
23	Communication: Accurate higher-order van der Waals coefficients between molecules from a model dynamic multipole polarizability. <i>Journal of Chemical Physics</i> , <b>2016</b> , 144, 031102	3.9	17
22	Performance of a nonempirical exchange functional from density matrix expansion: comparative study with different correlations. <i>Physical Chemistry Chemical Physics</i> , <b>2017</b> , 19, 21707-21713	3.6	17
21	Dynamical screening of van der Waals interactions in nanostructured solids: Sublimation of fullerenes. <i>Journal of Chemical Physics</i> , <b>2015</b> , 142, 164302	3.9	14

20	LONG-RANGE VAN DER WAALS INTERACTION. <i>International Journal of Modern Physics B</i> , <b>2013</b> , 27, 1330011	1.1	14
19	van der Waals Correction to the Physisorption of Graphene on Metal Surfaces. <i>Journal of Physical Chemistry C</i> , <b>2019</b> , 123, 13748-13757	3.8	13
18	Modeling the physisorption of graphene on metals. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	13
17	Comparative study of semilocal density functionals on solids and surfaces. <i>Chemical Physics Letters</i> , <b>2017</b> , 682, 38-42	2.5	12
16	First-principles study of the binding energy between nanostructures and its scaling with system size. <i>Physical Review B</i> , <b>2018</b> , 97,	3.3	12
15	Spherical-shell model for the van der Waals coefficients between fullerenes and/or nearly spherical nanoclusters. <i>Journal of Physics Condensed Matter</i> , <b>2012</b> , 24, 424207	1.8	12
14	Accurate van der Waals coefficients between fullerenes and fullerene-alkali atoms and clusters: Modified single-frequency approximation. <i>Physical Review B</i> , <b>2016</b> , 94,	3.3	11
13	Accurate lattice geometrical parameters and bulk moduli from a semilocal density functional. <i>AIP Advances</i> , <b>2018</b> , 8, 095209	1.5	10
12	Accurate excitation energies of molecules and oligomers from a semilocal density functional. <i>Journal of Chemical Physics</i> , <b>2017</b> , 146, 234102	3.9	9
11	Van der Waals coefficients beyond the classical shell model. <i>Journal of Chemical Physics</i> , <b>2015</b> , 142, 024303	3.3	8
10	Quantum pressure and chemical bonding: Influence of magnetic fields on electron localization. <i>Physical Review B</i> , <b>2015</b> , 92,	3.3	7
9	Comparative study of the properties of ionic solids from density functionals. <i>Materials Research Express</i> , <b>2018</b> , 5, 076302	1.7	7
8	Energetic Study of Clusters and Reaction Barrier Heights from Efficient Semilocal Density Functionals. <i>Computation</i> , <b>2017</b> , 5, 27	2.2	7
7	Origin of the size-dependence of the equilibrium van der Waals binding between nanostructures. <i>Journal of Chemical Physics</i> , <b>2018</b> , 148, 074110	3.9	5
6	Uniform Density Limit of Exchange-Correlation Energy Functionals. <i>ACS Symposium Series</i> , <b>2007</b> , 13-25	0.4	5
5	Density functionals combined with van der Waals corrections for graphene adsorbed on layered materials. <i>Physical Review B</i> , <b>2020</b> , 101,	3.3	4
4	Long-range dispersion-corrected density functional for noncovalent interactions. <i>International Journal of Modern Physics B</i> , <b>2019</b> , 33, 1950300	1.1	3
3	Geometric Derivation of the Stress Tensor of the Homogeneous Electron Gas. <i>Computation</i> , <b>2017</b> , 5, 28	2.2	1

2 CORRELATION ENERGY DENSITIES: E PLURIBUS UNUM **2002**, 719-730

1

1 Exchange-correlation energies of atoms from efficient density functionals: influence of the electron density. *Journal of Physics B: Atomic, Molecular and Optical Physics*, **2017**, 50, 245004

13