Raphael F Ribeiro

List of Publications by Citations

47 papers	2,397 citations	24 h-index	48 g-index
55 ext. papers	3,026 ext. citations	9 avg, IF	5.71 L-index

#	Paper	IF	Citations
47	Use of solution-phase vibrational frequencies in continuum models for the free energy of solvation. *Journal of Physical Chemistry B*, **2011**, 115, 14556-62	3.4	625
46	Polariton chemistry: controlling molecular dynamics with optical cavities. *Chemical Science*, **2018**, 9, 6325-6339	9.4	233
45	Does Coherence Enhance Transport in Photosynthesis?. *Journal of Physical Chemistry Letters*, **2013**, 4, 362-7	6.4	129
44	Theory for polariton-assisted remote energy transfer. *Chemical Science*, **2018**, 9, 6659-6669	9.4	101
43	Resonant catalysis of thermally activated chemical reactions with vibrational polaritons. *Nature Communications*, **2019**, 10, 4685	17.4	97
42	Exploiting chemistry and molecular systems for quantum information science. *Nature Reviews Chemistry*, **2020**, 4, 490-504	34.6	87
41	Two-dimensional infrared spectroscopy of vibrational polaritons. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, 4845-4850	11.5	85
40	Prediction of SAMPL2 aqueous solvation free energies and tautomeric ratios using the SM8, SM8AD, and SMD solvation models. *Journal of Computer-Aided Molecular Design*, **2010**, 24, 317-33	4.2	79
39	Polariton-Assisted Singlet Fission in Acene Aggregates. *Journal of Physical Chemistry Letters*, **2018**, 9, 1951-1957	6.4	68
38	Intermolecular vibrational energy transfer enabled by microcavity strong light-matter coupling. *Science*, **2020**, 368, 665-667	33.3	63
37	Can Ultrastrong Coupling Change Ground-State Chemical Reactions?. *ACS Photonics*, **2018**, 5, 167-176	6.3	58
36	Inverting singlet and triplet excited states using strong light-matter coupling. *Science Advances*, **2019**, 5, eaax4482	14.3	57
35	Manipulating molecules with strong coupling: harvesting triplet excitons in organic exciton microcavities. *Chemical Science*, **2020**, 11, 343-354	9.4	55
34	Remote Control of Chemistry in Optical Cavities. *CheM*, **2019**, 5, 1167-1181	16.2	52
33	Plexciton Dirac points and topological modes. *Nature Communications*, **2016**, 7, 11783	17.4	52
32	Topologically protected excitons in porphyrin thin films. *Nature Materials*, **2014**, 13, 1026-32	27	47
31	Theory for Nonlinear Spectroscopy of Vibrational Polaritons. *Journal of Physical Chemistry Letters*, **2018**, 9, 3766-3771	6.4	47

30	Polaritonic normal modes in transition state theory. *Journal of Chemical Physics*, **2020**, 152, 161101	3.9	41
29	Coherent exciton dynamics in supramolecular light-harvesting nanotubes revealed by ultrafast quantum process tomography. *ACS Nano*, **2014**, 8, 5527-34	16.7	41
28	The solvation, partitioning, hydrogen bonding, and dimerization of nucleotide bases: a multifaceted challenge for quantum chemistry. *Physical Chemistry Chemical Physics*, **2011**, 13, 10908-22	3.6	39
27	Manipulating optical nonlinearities of molecular polaritons by delocalization. *Science Advances*, **2019**, 5, eaax5196	14.3	39
26	State-Selective Polariton to Dark State Relaxation Dynamics. *Journal of Physical Chemistry A*, **2019**, 123, 5918-5927	2.8	36
25	Ultrafast Spectroscopy		28
24	Triplet harvesting in the polaritonic regime: A variational polaron approach. *Journal of Chemical Physics*, **2019**, 151, 054106	3.9	27
23	Polariton chemistry: Thinking inside the (photon) box. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 5214-5216	11.5	20
22	Corrections to Thomas-Fermi densities at turning points and beyond. *Physical Review Letters*, **2015**, 114, 050401	7.4	17
21	Polariton Assisted Down-Conversion of Photons via Nonadiabatic Molecular Dynamics: A Molecular Dynamical Casimir Effect. *Journal of Physical Chemistry Letters*, **2020**, 11, 152-159	6.4	17
20	Molecular Emission near Metal Interfaces: The Polaritonic Regime. *Journal of Physical Chemistry Letters*, **2018**, 9, 6511-6516	6.4	16
19	Catalysis by Dark States in Vibropolaritonic Chemistry.. *Physical Review Letters*, **2022**, 128, 096001	7.4	16
18	Nonequilibrium effects of cavity leakage and vibrational dissipation in thermally activated polariton chemistry. *Journal of Chemical Physics*, **2021**, 154, 084108	3.9	15
17	Practical witness for electronic coherences. *Journal of Chemical Physics*, **2014**, 141, 244109	3.9	12
16	Leading corrections to local approximations. II. The case with turning points. *Physical Review B*, **2017**, 95,	3.3	9
15	Solvent Dependence of (14)N Nuclear Magnetic Resonance Chemical Shielding Constants as a Test of the Accuracy of the Computed Polarization of Solute Electron Densities by the Solvent. *Journal of Chemical Theory and Computation*, **2009**, 5, 2284-300	6.4	9
14	Active Plasmonics and Active Chiral Plasmonics through Orientation-Dependent Multipolar Interactions. *ACS Nano*, **2020**, 14, 11518-11532	16.7	7
13	Enhanced optical nonlinearities under collective strong light-matter coupling. *Physical Review A*, **2021**, 103,	2.6	7

12	Generalization of the Tavis–Cummings model for multi-level anharmonic systems. *New Journal of Physics*, **2021**, 23, 063081	2.9	6
11	Optical Activity from the Exciton Aharonov–Bohm Effect: A Floquet Engineering Approach. *Journal of Physical Chemistry C*, **2020**, 124, 4206-4214	3.8	5
10	Deriving uniform semiclassical approximations for one-dimensional fermionic systems. *Journal of Chemical Physics*, **2018**, 148, 194103	3.9	5
9	Microcavity-like exciton-polaritons can be the primary photoexcitation in bare organic semiconductors. *Nature Communications*, **2021**, 12, 6519	17.4	5
8	Driving chemical reactions with polariton condensates.. *Nature Communications*, **2022**, 13, 1645	17.4	4
7	Continuous vibronic symmetries in Jahn-Teller models. *Journal of Physics Condensed Matter*, **2018**, 30, 333001	1.8	3
6	Remarks on time-dependent [current]-density functional theory for open quantum systems. *Physical Chemistry Chemical Physics*, **2013**, 15, 12626-36	3.6	3
5	Comment on "Quantum theory of collective strong coupling of molecular vibrations with a microcavity mode" *New Journal of Physics*, **2018**, 20, 018002	2.9	3
4	Vibronic Ground-State Degeneracies and the Berry Phase: A Continuous Symmetry Perspective. *Journal of Physical Chemistry Letters*, **2018**, 9, 242-247	6.4	2
3	Purcell Effect of Plasmonic Surface Lattice Resonances and Its Influence on Energy Transfer. *ACS Photonics*, **2021**, 8, 2211-2219	6.3	2
2	Enantioselective Topological Frequency Conversion.. *Journal of Physical Chemistry Letters*, **2022**, 2434-2441	6.4	0
1	Computational method for highly constrained molecular dynamics of rigid bodies: Coarse-grained simulation of auxetic two-dimensional protein crystals. *Journal of Chemical Physics*, **2020**, 152, 244102	3.9	