

Alexandra Olaya-Castro

List of Publications by Year in descending order

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31
papers

3,486
citations

516710

16
h-index

477307

29
g-index

31
all docs

31
docs citations

31
times ranked

4236
citing authors

#	ARTICLE	IF	CITATIONS
1	Lessons from nature about solar light harvesting. <i>Nature Chemistry</i> , 2011, 3, 763-774.	13.6	1,556
2	Using coherence to enhance function in chemical and biophysical systems. <i>Nature</i> , 2017, 543, 647-656.	27.8	477
3	Efficiency of energy transfer in a light-harvesting system under quantum coherence. <i>Physical Review B</i> , 2008, 78, .	3.2	268
4	Non-classicality of the molecular vibrations assisting exciton energy transfer at room temperature. <i>Nature Communications</i> , 2014, 5, 3012.	12.8	191
5	Energy transfer from Förster theory to quantum coherent light-harvesting. <i>International Reviews in Physical Chemistry</i> , 2011, 30, 49-77.	2.3	188
6	The fundamental role of quantized vibrations in coherent light harvesting by cryptophyte algae. <i>Journal of Chemical Physics</i> , 2012, 137, 174109.	3.0	184
7	Quantum State Tuning of Energy Transfer in a Correlated Environment. <i>Journal of Physical Chemistry Letters</i> , 2010, 1, 2139-2143.	4.6	103
8	Distribution of entanglement in light-harvesting complexes and their quantum efficiency. <i>New Journal of Physics</i> , 2010, 12, 085006.	2.9	96
9	Coherent Energy Transfer under Incoherent Light Conditions. <i>Journal of Physical Chemistry Letters</i> , 2012, 3, 3136-3142.	4.6	66
10	Energy Transfer in Light-Adapted Photosynthetic Membranes: From Active to Saturated Photosynthesis. <i>Biophysical Journal</i> , 2009, 97, 2464-2473.	0.5	54
11	Molecular basis of the exciton-phonon interactions in the PE545 light-harvesting complex. <i>Physical Chemistry Chemical Physics</i> , 2014, 16, 16302-16311.	2.8	43
12	Strong Quantum Darwinism and Strong Independence are Equivalent to Spectrum Broadcast Structure. <i>Physical Review Letters</i> , 2019, 122, 010403.	7.8	37
13	Scheme for on-resonance generation of entanglement in time-dependent asymmetric two-qubit-cavity systems. <i>Physical Review A</i> , 2004, 70, .	2.5	35
14	Phonon-mediated path-interference in electronic energy transfer. <i>Journal of Chemical Physics</i> , 2012, 136, 024112.	3.0	25
15	Robust One-Step Catalytic Machine for High Fidelity Anticloning and W-State Generation in a Multiqubit System. <i>Physical Review Letters</i> , 2005, 94, 110502.	7.8	23
16	Objectivity (or lack thereof): Comparison between predictions of quantum Darwinism and spectrum broadcast structure. <i>Physical Review A</i> , 2018, 98, .	2.5	23
17	Witnessing non-objectivity in the framework of strong quantum Darwinism. <i>Quantum Science and Technology</i> , 2020, 5, 045012.	5.8	17
18	Vibronic Coupling as a Design Principle to Optimize Photosynthetic Energy Transfer. <i>CheM</i> , 2016, 1, 822-824.	11.7	14

#	ARTICLE	IF	CITATIONS
19	Transient synchronisation and quantum coherence in a bio-inspired vibronic dimer. Faraday Discussions, 2019, 216, 38-56.	3.2	14
20	Quantum-coherent energy transfer: implications for biology and new energy technologies. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2012, 370, 3613-3617.	3.4	10
21	Dynamics of quantum correlations and linear entropy in a multi-qubit-cavity system. Journal of Optics B: Quantum and Semiclassical Optics, 2004, 6, S730-S735.	1.4	9
22	Characterizing quantum-sharing of electronic excitation in molecular aggregates. Procedia Chemistry, 2011, 3, 176-184.	0.7	8
23	Coherence specific signal detection via chiral pump-probe spectroscopy. Journal of Chemical Physics, 2016, 144, 194112.	3.0	8
24	On the performance of a photosystem II reaction centre-based photocell. Chemical Science, 2017, 8, 6871-6880.	7.4	8
25	Perturbation approach for computing frequency- and time-resolved photon correlation functions. Physical Review A, 2018, 98, .	2.5	8
26	Isolating the chiral contribution in optical two-dimensional chiral spectroscopy using linearly polarized light. Optics Express, 2017, 25, 6383.	3.4	7
27	Synchronization phase as an indicator of persistent quantum correlations between subsystems. Physical Review A, 2020, 102, .	2.5	7
28	Dynamical crossovers in Markovian exciton transport. New Journal of Physics, 2013, 15, 083056.	2.9	6
29	Energy and charge-transfer in natural photosynthesis: general discussion. Faraday Discussions, 2019, 216, 133-161.	3.2	1
30	Electronic Excitation Dynamics in a Framework of Shifted Oscillators. Semiconductors and Semimetals, 2011, 85, 145-177.	0.7	0
31	Le and Olaya-Castro Reply:. Physical Review Letters, 2021, 126, 188902.	7.8	0