

# Chuan-Cun Shu

## List of Publications by Year in descending order

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46  
papers

826  
citations

430874

18  
h-index

526287

27  
g-index

47  
all docs

47  
docs citations

47  
times ranked

340  
citing authors

#	ARTICLE	IF	CITATIONS
1	Field-free molecular orientation with terahertz few-cycle pulses. <i>Journal of Chemical Physics</i> , 2010, 132, 244311.	3.0	65
2	Field-free molecular orientation induced by single-cycle THz pulses: The role of resonance and quantum interference. <i>Physical Review A</i> , 2013, 87, .	2.5	60
3	Identifying Strong-Field Effects in Indirect Photofragmentation Reactions. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 1-6.	4.6	49
4	Attosecond Dynamics of Molecular Electronic Ring Currents. <i>Journal of Physical Chemistry Letters</i> , 2017, 8, 2229-2235.	4.6	47
5	Stimulated Raman adiabatic passage in molecular electronic states. <i>Physical Review A</i> , 2009, 79, .	2.5	39
6	Controlling the orientation of polar molecules in a rovibrationally selective manner with an infrared laser pulse and a delayed half-cycle pulse. <i>Physical Review A</i> , 2008, 78, .	2.5	36
7	Vanishing and Revival of Resonance Raman Scattering. <i>Physical Review Letters</i> , 2019, 123, 223202.	7.8	35
8	Frequency domain quantum optimal control under multiple constraints. <i>Physical Review A</i> , 2016, 93, .	2.5	33
9	Carrier-envelope phase-dependent field-free molecular orientation. <i>Physical Review A</i> , 2009, 80, .	2.5	30
10	Coherent control of indirect photofragmentation in the weak-field limit: Control of transient fragment distributions. <i>Journal of Chemical Physics</i> , 2011, 134, 164308.	3.0	29
11	Phase-only shaped laser pulses in optimal control theory: Application to indirect photofragmentation dynamics in the weak-field limit. <i>Journal of Chemical Physics</i> , 2012, 136, 044303.	3.0	27
12	Optimal and robust control of quantum state transfer by shaping the spectral phase of ultrafast laser pulses. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 9498-9506.	2.8	27
13	Attosecond all-optical control and visualization of quantum interference between degenerate magnetic states by circularly polarized pulses. <i>Optics Letters</i> , 2020, 45, 960.	3.3	26
14	Orientalional quantum revivals induced by a single-cycle terahertz pulse. <i>Physical Review A</i> , 2020, 102, .	2.5	24
15	All-optical generation of quantum entangled states with strictly constrained ultrafast laser pulses. <i>Physical Review A</i> , 2019, 100, .	2.5	20
16	A theoretical investigation of the feasibility of Tannor-Rice type control: Application to selective bond breakage in gas-phase dihalomethanes. <i>Journal of Chemical Physics</i> , 2012, 136, 174303.	3.0	19
17	Optimal control of charge transfer for slow H+ + D collisions with shaped laser pulses. <i>Journal of Chemical Physics</i> , 2014, 140, 094304.	3.0	19
18	Monotonic convergent quantum optimal control method with exact equality constraints on the optimized control fields. <i>Physical Review A</i> , 2016, 93, .	2.5	18

#	ARTICLE	IF	CITATIONS
19	Generation of maximal three-state field-free molecular orientation with terahertz pulses. <i>Physical Review A</i> , 2021, 104, .	2.5	18
20	Fast quantum state transfer in hybrid quantum dot-metal nanoparticle systems by shaping ultrafast laser pulses. <i>Journal Physics D: Applied Physics</i> , 2019, 52, 425101.	2.8	17
21	Complete elimination of nonlinear light-matter interactions with broadband ultrafast laser pulses. <i>Physical Review A</i> , 2017, 95, .	2.5	16
22	Learning Control of Quantum Systems Using Frequency-Domain Optimization Algorithms. <i>IEEE Transactions on Control Systems Technology</i> , 2021, 29, 1791-1798.	5.2	16
23	Resonance-enhanced above-threshold ionization of polar molecules induced by ultrashort laser pulses. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2008, 41, 065602.	1.5	15
24	Quantum learning control using differential evolution with equally-mixed strategies. <i>Control Theory and Technology</i> , 2017, 15, 226-241.	1.6	15
25	The carrier-envelope phase dependence of above threshold dissociation for HD+ driven by the modulated laser field. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2010, 43, 055601.	1.5	13
26	Enhancement of molecular field-free orientation by utilizing rovibrational excitation. <i>Chemical Physics Letters</i> , 2009, 474, 222-226.	2.6	12
27	Determination of the phase of terahertz few-cycle laser pulses. <i>Optics Letters</i> , 2009, 34, 3190.	3.3	11
28	ABOVE THRESHOLD IONIZATION OF POLAR NaK MOLECULES DRIVEN BY FEW-CYCLE LASER PULSE. <i>Journal of Theoretical and Computational Chemistry</i> , 2010, 09, 785-795.	1.8	10
29	Three-peak Autler-Townes splitting in the photoelectron spectrum of $\text{Li}_2$ molecules caused by femtosecond laser pulses. <i>International Journal of Quantum Chemistry</i> , 2010, 110, 1224-1234.	2.0	9
30	Femtochemistry in the electronic ground state: Dynamic Stark control of vibrational dynamics. <i>Chemical Physics Letters</i> , 2017, 683, 234-239.	2.6	9
31	Visualizing Hidden Ultrafast Processes in Individual Molecules by Single-Pulse Coherent Control. <i>Journal of the American Chemical Society</i> , 2018, 140, 15329-15335.	13.7	9
32	Cyclic three-level-pulse-area theorem for enantioselective state transfer of chiral molecules. <i>Physical Review A</i> , 2022, 105, .	2.5	9
33	Generation of fractional and multiple imaginary rotational alignment echoes. <i>Physical Review A</i> , 2021, 104, .	2.5	8
34	Two-photon induced ultrafast coherence decay of highly excited states in single molecules. <i>New Journal of Physics</i> , 2019, 21, 045001.	2.9	7
35	Rovibrational manipulation of molecular quantum state by a train of ultrashort pulses. <i>Chemical Physics Letters</i> , 2010, 491, 156-159.	2.6	5
36	Communication: Creation of molecular vibrational motions via the rotation-vibration coupling. <i>Journal of Chemical Physics</i> , 2015, 142, 221101.	3.0	5

#	ARTICLE	IF	CITATIONS
37	Accelerating adiabatic light transfer and split in three-waveguide couplers via dressed state. <i>Optik</i> , 2020, 210, 164516.	2.9	4
38	Steering population transfer of a five-level polar NaK molecule by Stark shifts. <i>Chemical Physics</i> , 2008, 344, 121-127.	1.9	3
39	Hessian facilitated analysis of optimally controlled quantum dynamics of systems with coupled primary and secondary states. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 18621-18628.	2.8	3
40	Numerical detection of Gaussian entanglement and its application to the identification of bound entangled Gaussian states. <i>Quantum Information Processing</i> , 2020, 19, 1.	2.2	3
41	Single-laser-induced quantum interference in photofragmentation reaction of D+ 2. <i>Molecular Physics</i> , 2017, 115, 1908-1915.	1.7	2
42	Visualizing ultrasmall silica@CTAB hybrid nanoparticles for generating high photoluminescence. <i>Journal of Materials Chemistry C</i> , 2020, 8, 6413-6421.	5.5	2
43	Efficient enhancement of field-free molecular orientation by combining terahertz few-cycle pulses and rovibrational pre-excitation. <i>Chemical Physics Letters</i> , 2009, 480, 193-197.	2.6	1
44	Linear Passive Open Quantum Systems. , 2019, , .		1
45	Learning a control field for simultaneous state transformation in CO molecules. , 2016, , .		0
46	Angular distributions of molecular photofragments by intense ultrashort laser pulses. <i>The Journal of Atomic and Molecular Sciences</i> , 2018, 9, 28-32.	0.1	0