Hai-Lung Dai

List of Publications by Year
in descending order

98 papers	2,466 citations	201674 27 h-index	243625 44 g-index
104 all docs	104 docs citations	104 times ranked	2268 citing authors

#	Article	IF	Citations
1	Dynamics of the triplet-pair state reveals the likely coexistence of coherent and incoherent singlet fission in crystalline hexacene. Nature Chemistry, 2017, 9, 341-346.	13.6	155
2	Polarized Absorption in Crystalline Pentacene: Theory vs Experiment. Journal of Physical Chemistry C, 2015, 119, 22137-22147.	3.1	98
3	Activation of Thiols at a Silver Nanoparticle Surface. Angewandte Chemie - International Edition, 2011, 50, 6622-6625.	13.8	90
4	Time-Resolved Molecular Transport across Living Cell Membranes. Biophysical Journal, 2013, 104, 139-145.	0.5	78
5	In Situ, Nonlinear Optical Probe of Surfactant Adsorption on the Surface of Microparticles in Colloids. Langmuir, 2000, 16, 2475-2481.	3.5	76
6	Adsorption of a Cationic Dye Molecule on Polystyrene Microspheres in Colloids:Â Effect of Surface Charge and Composition Probed by Second Harmonic Generation. Journal of Physical Chemistry B, 2005, 109, 4646-4653.	2.6	76
7	The Effect of Particle Size in Second Harmonic Generation from the Surface of Spherical Colloidal Particles. I: Experimental Observations. Journal of Physical Chemistry A, 2009, 113, 4758-4762.	2.5	73
8	Second Harmonic Light Scattering from the Surface of Colloidal Objects: Theory and Applications. Langmuir, 2014, 30, 2588-2599.	3.5	66
9	Vibrational spectroscopy of a transient species through time-resolved Fourier transform infrared emission spectroscopy: The vinyl radical. Journal of Chemical Physics, 2000, 112, 9209-9212.	3.0	65
10	Nonlinear Optical Probe of Biopolymer Adsorption on Colloidal Particle Surface:Â Poly-l-lysine on Polystyrene Sulfate Microspheres. Langmuir, 2004, 20, 9202-9209.	3.5	64
11	The Effect of Particle Size in Second Harmonic Generation from the Surface of Spherical Colloidal Particles. II: The Nonlinear Rayleighâ"Gansâ"Debye Model. Journal of Physical Chemistry C, 2010, 114, 4302-4308.	3.1	59
12	Probing Molecules Adsorbed at the Surface of Nanometer Colloidal Particles by Optical Second-Harmonic Generation. Journal of Physical Chemistry B, 2006, 110, 23000-23003.	2.6	54
13	Communication: Reactions and adsorption at the surface of silver nanoparticles probed by second harmonic generation. Journal of Chemical Physics, 2011, 134, 041104.	3.0	54
14	Collisional energy transfer of highly vibrationally excited NO2: The role of intramolecular vibronic coupling and the transition dipole coupling mechanism. Journal of Chemical Physics, 1997, 107, 2890-2902.	3.0	51
15	Solid state transformation of the crystalline monohydrate (CH3NH3)PbI3(H2O) to the (CH3NH3)PbI3 perovskite. Chemical Communications, 2015, 51, 11290-11292.	4.1	51
16	Gramâ€™s Stain Does Not Cross the Bacterial Cytoplasmic Membrane. ACS Chemical Biology, 2015, 10, 1711-1717.	3.4	51
17	Adsorption Energies, Inter-adsorbate Interactions, and the Two Binding Sites within Monolayer Benzene on Ag(111)â€. Journal of Physical Chemistry B, 2006, 110, 19973-19978.	2.6	50
18	Determination of bacterial surface charge density via saturation of adsorbed ions. Biophysical Journal, 2021, 120, 2461-2470.	0.5	44

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19	Adsorption at a Carbon Black Microparticle Surface in Aqueous Colloids Probed by Optical Second-Harmonic Generationâ€. Journal of Physical Chemistry C, 2007, 111, 8708-8715.	3.1	40
20	The Effect of Composition, Morphology, and Susceptibility on Nonlinear Light Scattering from Metallic and Dielectric Nanoparticles. Journal of Physical Chemistry Letters, 2012, 3, 2877-2881.	4.6	40
21	Adsorption and transport of charged vs. neutral hydrophobic molecules at the membrane of murine erythroleukemia (MEL) cells. Colloids and Surfaces B: Biointerfaces, 2015, 127, 122-129.	5.0	39
22	Azithromycin-Induced Changes to Bacterial Membrane Properties Monitored in Vitro by Second-Harmonic Light Scattering. ACS Medicinal Chemistry Letters, 2018, 9, 569-574.	2.8	37
23	Label-Free Optical Method for Quantifying Molecular Transport Across Cellular Membranes In Vitro. Journal of Physical Chemistry Letters, 2016, 7, 3406-3411.	4.6	34
24	Photodissociation of vinyl cyanide at 193 nm: Nascent product distributions of the molecular elimination channels. Journal of Chemical Physics, 2009, 130, 044307.	3.0	33
25	Chemically Induced Changes to Membrane Permeability in Living Cells Probed with Nonlinear Light Scattering. Biochemistry, 2015, 54, 4427-4430.	2.5	33
26	Modeling Photosensitized Secondary Organic Aerosol Formation in Laboratory and Ambient Aerosols. Environmental Science & Technology, 2017, 51, 7496-7501.	10.0	31
27	193 nm photolysis of vinyl bromide: Nascent product distribution of the C2H3Brâ†'C2H2 (vinylidene)+HBr channel. Journal of Chemical Physics, 2001, 115, 1734-1741.	3.0	30
28	Real-time molecular uptake and membrane-specific transport in living cells by optical microscopy and nonlinear light scattering. Chemical Physics Letters, 2014, 605-606, 158-163.	2.6	30
29	Chemical Activation through Super Energy Transfer Collisions. Journal of the American Chemical Society, 2014, 136, 1682-1685.	13.7	28
30	Optical reflectivity changes induced by adsorption on metal surfaces: The origin and applications to monitoring adsorption kinetics. Journal of Chemical Physics, 2000, 112, 923-934.	3.0	27
31	Spatially Resolved Membrane Transport in a Single Cell Imaged by Second Harmonic Light Scattering. Biochemistry, 2019, 58, 1841-1844.	2.5	27
32	Influence of molecular structure on passive membrane transport: A case study by second harmonic light scattering. Journal of Chemical Physics, 2019, 150, 104705.	3.0	26
33	Ultrafast transient grating scattering studies of carrier dynamics at a silicon surface. Chemical Physics, 2000, 251, 205-213.	1.9	25
34	Collision Relaxation Cross Section of Highly Vibrationally Excited Molecules. Physical Review Letters, 2000, 84, 2606-2609.	7.8	25
35	Adsorption of Anionic Thiols on Silver Nanoparticles. Journal of Physical Chemistry C, 2015, 119, 5454-5461.	3.1	25
36	Vibrational Modes of the Vinyl and Deuterated Vinyl Radicals. Journal of Physical Chemistry A, 2009, 113, 8857-8870.	2.5	23

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37	Photoactivated Production of Secondary Organic Species from Isoprene in Aqueous Systems. Journal of Physical Chemistry A, 2016, 120, 9042-9048.	2.5	23
38	Interfacing a transient digitizer to a step-scan Fourier transform spectrometer for nanosecond time resolved spectroscopy. Review of Scientific Instruments, 1999, 70, 18-22.	1.3	22
39	Observation of Organic Molecules at the Aerosol Surface. Journal of Physical Chemistry Letters, 2016, 7, 2294-2297.	4.6	21
40	Nanosecond time-resolved FTIR emission spectroscopy: Monitoring the energy distribution of highly vibrationally excited molecules during collisional deactivation. Journal of Chemical Physics, 1998, 108, 1297-1300.	3.0	20
41	The lowest quartet-state of the ketenyl (HCCO) radical: Collision-induced intersystem crossing and the <mml:math xmlns:mml="http://www.w3.org/1998/Math/MathML" altimg="si8.gif" overflow="scroll"><mml:mrow><mml:msub><mml:mrow><mml:mi>Î½</mml:mi></mml:mrow><mml:mrow><mml:mn>2</mml:mn> vibrational mode. Chemical Physics, 2013, 422, 290-296.	1.9	20
42	Tetracene Monolayer and Multilayer Thin Films on Ag(111):â€‰ Substrate-Adsorbate Charge-Transfer Bonding and Inter-Adsorbate Interaction. Journal of Physical Chemistry C, 2008, 112, 4696-4703.	3.1	19
43	The Î½1 CH stretching mode of the ketenyl (HCCO) radical. Journal of Chemical Physics, 2008, 128, 064313.	3.0	19
44	Effects of Molecular Structure and Solvent Polarity on Adsorption of Carboxylic Anchoring Dyes onto TiO₂ Particles in Aprotic Solvents. Langmuir, 2017, 33, 7036-7042.	3.5	19
45	Aniline on Ag(111): Adsorption configuration, adsorbateâ€“substrate bond, and inter-adsorbate interactions. Surface Science, 2005, 589, 42-51.	1.9	18
46	Is Photolytic Production a Viable Source of HCN and HNC in Astrophysical Environments? A Laboratory-based Feasibility Study of Methyl Cyanoformate. Astrophysical Journal, 2017, 849, 15.	4.5	18
47	The Î½1 and Î½2 vibrational bands of the OCCN radical detected through time-resolved Fourier transform IR emission spectroscopy. Canadian Journal of Chemistry, 2004, 82, 925-933.	1.1	17
48	Physisorption on a metal surface probed by surface state resonant second harmonic generation. Surface Science, 2004, 565, 27-36.	1.9	16
49	Fabrication of Anisotropic Silver Nanoplatelets on the Surface of TiO₂ Fibers for Enhanced Photocatalysis of a Chemical Warfare Agent Simulant, Methyl Paraoxon. Journal of Physical Chemistry C, 2019, 123, 19579-19587.	3.1	16
50	Anisotropic Singlet Fission in Single Crystalline Hexacene. IScience, 2019, 19, 1079-1089.	4.1	16
51	Structure and Vibrational Modes of the Cyanovinyl Radical:â€‰ A Study by Time-Resolved Fourier Transform IR Emission Spectroscopy. Journal of Physical Chemistry A, 2002, 106, 12035-12040.	2.5	15
52	Observation of the singletâ€“triplet pair of the 4p Rydberg state and assignment of the Rydberg series of SO2. Journal of Chemical Physics, 2000, 112, 2210-2217.	3.0	14
53	Strong combination-band IR emission from highly vibrationally excited acetylene. Physical Chemistry Chemical Physics, 2010, 12, 2915.	2.8	14
54	Photolysis (193 nm) of SO₂: Nascent Product Energy Distribution Examined through IR Emission. Journal of Physical Chemistry A, 2012, 116, 166-173.	2.5	14

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55	Large cross section for super energy transfer from hyperthermal atoms to ambient molecules. Physical Review A, 2016, 93, .	2.5	14
56	Moleculeâ€Membrane Interactions in Biological Cells Studied with Second Harmonic Light Scattering. Chemistry - an Asian Journal, 2020, 15, 200-213.	3.3	14
57	Vâ^'V Energy Transfer from Highly Vibrationally Excited Molecules through Transition Dipole Coupling:Â A Quantitative Test on Energy Transfer from SO2(vâ‰« 0) to SF6(31)â€. Journal of Physical Chemistry A, 2000, 104, 10460-10463.	2.5	13
58	Two-dimensional cross-spectral correlation analysis and its application to time-resolved Fourier transform emission spectra of transient radicals. Journal of Chemical Physics, 2005, 123, 184104.	3.0	13
59	Collisional Energy Transfer from Highly Vibrationally Excited Radicals Is Very Efficient. Journal of Physical Chemistry Letters, 2013, 4, 23-29.	4.6	13
60	Super Bright Luminescent Metallic Nanoparticles. Journal of Physical Chemistry Letters, 2018, 9, 4155-4159.	4.6	13
61	Heterogeneous nucleation and wetting of water thin films on a metal surface: A study by optical second harmonic generation. Journal of Chemical Physics, 2003, 118, 5106-5114.	3.0	12
62	Influence of Solvent on Dyeâ€Sensitized Solar Cell Efficiency: What is so Special About Acetonitrile?. Particle and Particle Systems Characterization, 2021, 38, 2000220.	2.3	12
63	Adsorbateâ€"substrate bonding and the growth of naphthalene thin films on Ag(111). Surface Science, 2007, 601, 2307-2314.	1.9	11
64	Carboxylic Anchoring Dye p-Ethyl Red Does Not Adsorb Directly onto TiO₂ Particles in Protic Solvents. Journal of Physical Chemistry C, 2019, 123, 8265-8272.	3.1	11
65	Solution-Processed Molecular Opto-Ferroic Crystals. Chemistry of Materials, 2016, 28, 2441-2448.	6.7	10
66	Electron injection from a carboxylic anchoring dye to TiO2 nanoparticles in aprotic solvents. Chemical Physics, 2018, 512, 93-97.	1.9	10
67	Spectral reconstruction analysis for enhancing signal-to-noise in time-resolved spectroscopies. Journal of Chemical Physics, 2015, 143, 124204.	3.0	9
68	Silica-coating-assisted nitridation of TiO2 nanoparticles and their photothermal property. Nano Research, 2021, 14, 3228-3233.	10.4	9
69	Indole Facilitates Antimicrobial Uptake in Bacteria. ACS Infectious Diseases, 2022, 8, 1124-1133.	3.8	9
70	In Situ Observation of a Phase Transition in a Thin Molecular Film by Optical Second Harmonic Generation. Langmuir, 2000, 16, 2832-2838.	3.5	7
71	Time-Resolved FTIR Emission Spectroscopy of Transient Radicals. Journal of the Chinese Chemical Society, 2005, 52, 677-686.	1.4	7
72	External Stimuli Responsive 2D Charge Transfer Polymers. Advanced Materials Interfaces, 2017, 4, 1600769.	3.7	7

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73	Note: Reconstructing interferograms improves spectral SNR. Journal of Chemical Physics, 2016, 145, 036101.	3.0	6
74	UV Photolysis of Pyrazine and the Production of Hydrogen Isocyanide. Journal of Physical Chemistry A, 2018, 122, 9001-9013.	2.5	6
75	Collisional Energy Transfer of Highly Vibrationally Excited Molecules: The Role of Long-Range Interaction and Intramolecular Vibronic Coupling. ACS Symposium Series, 1997, , 266-274.	0.5	5
76	Photochemistry of Vinyl Chloride Physisorbed on Ag(111) through Molecular Anion Formation Induced by Substrate Electron Attachment. Journal of Physical Chemistry B, 2006, 110, 10374-10382.	2.6	5
77	Signal-to-noise enhancement in time-resolved IR emission spectra through two-dimensional correlation analysis. Journal of Molecular Structure, 2008, 883-884, 242-248.	3.6	5
78	Crystallization and Premelting in Thin Films of Weakly Interacting Molecules:Â A Study of Pyridine Films on Ag by Optical Second Harmonic Generation. Journal of Physical Chemistry B, 2003, 107, 12233-12238.	2.6	4
79	Collision Induced Dephasing in Fluorescence Quantum Beat of SO2(Cl̀f1B2)â€. Journal of Physical Chemistry A, 2003, 107, 10845-10850.	2.5	4
80	Quantum State-Resolved Collision Relaxation of Highly Vibrationally Excited SO₂. Journal of Physical Chemistry A, 2007, 111, 9632-9639.	2.5	4
81	Collisional Energy Transfer from Vibrationally Excited Hydrogen Isocyanide. Journal of Physical Chemistry A, 2019, 123, 6927-6936.	2.5	4
82	Ultrathin Films of Pentacene on Ag(111): Charge-Transfer Bonding and Interadsorbate Interactions. Journal of Physical Chemistry C, 2021, 125, 3385-3395.	3.1	3
83	Probing Structure, Spectroscopy, Kinetics, and Dynamics on Metal Surfaces by Optical Second Harmonic Generation. Journal of the Chinese Chemical Society, 1995, 42, 461-469.	1.4	2
84	Structure and Growth of Thin Films of Aniline on Silver:Â Nucleation and Premelting of Nanocrystallites, Porosity, and Crystallization. Journal of Physical Chemistry B, 2006, 110, 23424-23432.	2.6	2
85	Collision Relaxation of Highly Vibrationally Excited SO₂ by CO in A Supersonic Beam. Journal of the Chinese Chemical Society, 2006, 53, 25-31.	1.4	2
86	Carrier recombination of organic-inorganic 3D halide perovskite single crystals. Chinese Journal of Chemical Physics, 2020, 33, 252-257.	1.3	2
87	Control of Chemical Reactions through Coherent Excitation of Eigenlevels: A Demonstration via Vibronic Coupling in SO2. Journal of Physical Chemistry A, 2021, 125, 9065-9070.	2.5	2
88	Ag nanoplatelets as efficient photosensitizers for TiO2 nanorods. Journal of Chemical Physics, 2022, 156, 024703.	3.0	2
89	DISPERSED AND STIMULATED EMISSION STUDIES OF THE EXCITED VIBRATIONAL LEVELS OF A TRANSIENT MOLECULE: SINGLET METHYLENE. Advanced Series in Physical Chemistry, 1995, , 183-221.	1.5	1
90	Real-Time Observation of Molecular Transport across Biological Membranes with Non-Linear Optical Spectroscopy and Fluorescence Microscopy. Biophysical Journal, 2013, 104, 23a.	0.5	1

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91	TIME-RESOLVED DIODE LASER IR REFLECTION-ABSORPTION SPECTROSCOPY. Advanced Series in Physical Chemistry, 1995, , 243-274.	1.5	1
92	Imaging Molecular Transport Through the Membrane of a Living Cell. SSRN Electronic Journal, 0, , .	0.4	1
93	Quantitative Modeling of Electron Dynamics and the Effect of Diffusion in Photosensitized Semiconductor Nanocomposites. Accounts of Chemical Research, 0, , .	15.6	1
94	New Paradigms for Educating Chemistry Professionals in a Globalized World. ACS Symposium Series, 2014, , 199-204.	0.5	0
95	Single-Molecule Fluorescence Resonance Energy Transfer Studies of Î²-Amyloid Clusters in Physiological Solutions. World Scientific Lecture and Course Notes in Chemistry, 2017, , 297-311.	0.2	0
96	Publications of Hai-Lung Dai. Journal of Physical Chemistry A, 2019, 123, 10472-10479.	2.5	0
97	VIBRATIONAL SPECTROSCOPY AND DYNAMICS BY STIMULATED EMISSION PUMPING. Advances in Multi-photon Processes and Spectroscopy, 1991, , 169-236.	0.6	0
98	Nonlinear Light Scattering from Buried Interfaces: Fundamentals and Applications. ACS Symposium Series, 0, , 173-198.	0.5	0