Klaas Wynne

List of Publications by Year
in descending order

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111 papers	4,266 citations	94433 37 h-index	114465 63 g-index
125 all docs	125 docs citations	125 times ranked	3373 citing authors

#	Article	IF	Citations
1	Rapid age-grading and species identification of natural mosquitoes for malaria surveillance. Nature Communications, 2022, 13, 1501.	12.8	28
2	A Metastable Amorphous Intermediate Is Responsible for Laser-Induced Nucleation of Glycine. Journal of the American Chemical Society, 2022, 144, 6727-6733.	13.7	14
3	Low-frequency vibrational modes in G-quadruplexes reveal the mechanical properties of nucleic acids. Physical Chemistry Chemical Physics, 2021, 23, 13250-13260.	2.8	7
4	Low-Frequency (Gigahertz to Terahertz) Depolarized Raman Scattering Offn-Alkanes, Cycloalkanes, and Six-Membered Rings: A Physical Interpretation. Journal of Physical Chemistry B, 2020, 124, 7611-7624.	2.6	5
5	Polyamorphism Mirrors Polymorphism in the Liquidâ€“Liquid Transition of a Molecular Liquid. Journal of the American Chemical Society, 2020, 142, 7591-7597.	13.7	17
6	Experimental observation of nanophase segregation in aqueous salt solutions around the predicted liquidâ€“liquid transition in water. Physical Chemistry Chemical Physics, 2020, 22, 9438-9447.	2.8	5
7	Detection of malaria parasites in dried human blood spots using mid-infrared spectroscopy and logistic regression analysis. Malaria Journal, 2019, 18, 341.	2.3	36
8	Using mid-infrared spectroscopy and supervised machine-learning to identify vertebrate blood meals in the malaria vector, Anopheles arabiensis. Malaria Journal, 2019, 18, 187.	2.3	28
9	Using optical tweezing to control phase separation and nucleation near a liquidâ€“liquid critical point. Soft Matter, 2019, 15, 8279-8289.	2.7	17
10	Prediction of mosquito species and population age structure using mid-infrared spectroscopy and supervised machine learning. Wellcome Open Research, 2019, 4, 76.	1.8	40
11	Prediction of mosquito species and population age structure using mid-infrared spectroscopy and supervised machine learning. Wellcome Open Research, 2019, 4, 76.	1.8	36
12	Control over phase separation and nucleation using a laser-tweezing potential. Nature Chemistry, 2018, 10, 506-510.	13.6	38
13	Reply to â€œComment on â€˜The Mayonnaise Effectâ€™â€•. Journal of Physical Chemistry B, 2018, 122, 2824-2824.	2.6	0
14	Frustration vs Prenucleation: Understanding the Surprising Stability of Supersaturated Sodium Thiosulfate Solutions. Journal of Physical Chemistry B, 2018, 122, 7590-7596.	2.6	20
15	Control over phase separation and nucleation using a optical-tweezing potential. , 2018, , .		0
16	Frustration of crystallisation by a liquidâ€“crystal phase. Scientific Reports, 2017, 7, 42439.	3.3	20
17	Dielectric Relaxation of the Ionic Liquid 1-Ethyl-3-methylimidazolium Ethyl Sulfate: Microwave and Far-IR Properties. Journal of Physical Chemistry B, 2017, 121, 4845-4852.	2.6	14
18	Phonon-like Hydrogen-Bond Modes in Protic Ionic Liquids. Journal of the American Chemical Society, 2017, 139, 7160-7163.	13.7	35

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19	Spectrum of Slow and Super-Slow (Picosecond to Nanosecond) Water Dynamics around Organic and Biological Solutes. Journal of Physical Chemistry Letters, 2017, 8, 2964-2970.	4.6	27
20	The Mayonnaise Effect. Journal of Physical Chemistry Letters, 2017, 8, 6189-6192.	4.6	22
21	Ultrafast 2D-IR and optical Kerr effect spectroscopy reveal the impact of duplex melting on the structural dynamics of DNA. Physical Chemistry Chemical Physics, 2017, 19, 10333-10342.	2.8	24
22	Observation of coherent delocalized phonon-like modes in DNA under physiological conditions. Nature Communications, 2016, 7, 11799.	12.8	66
23	Crystal templating through liquidâ€“liquid phase separation. Chemical Communications, 2015, 51, 1139-1142.	4.1	9
24	Order Parameter of the Liquidâ€“Liquid Transition in a Molecular Liquid. Journal of Physical Chemistry Letters, 2015, 6, 38-43.	4.6	25
25	Ultra-Broadband Dielectric and Optical Kerr-Effect Study of the Ionic Liquids Ethyl and Propylammonium Nitrate. Journal of Physical Chemistry B, 2015, 119, 8826-8841.	2.6	48
26	Dynamics of RTILs: A comparative dielectric and OKE study. Journal of Molecular Liquids, 2014, 192, 19-25.	4.9	72
27	Terahertz underdamped vibrational motion governs protein-ligand binding in solution. Nature Communications, 2014, 5, 3999.	12.8	170
28	Stokesâ€“Einsteinâ€“Debye Failure in Molecular Orientational Diffusion: Exception or Rule?. Journal of Physical Chemistry B, 2014, 118, 4600-4604.	2.6	48
29	Terahertz optical Kerr effect spectroscopy of biological molecules. , 2014, , .		0
30	Ultrabroadband terahertz spectroscopies of biomolecules and water. , 2013, , .		5
31	Ultrafast chemical dynamics. Physical Chemistry Chemical Physics, 2012, 14, 6154.	2.8	3
32	Structure and dynamics in protic ionic liquids: A combined optical Kerr-effect and dielectric relaxation spectroscopy study. Faraday Discussions, 2012, 154, 145-153.	3.2	56
33	The dynamic crossover in water does not require bulk water. Physical Chemistry Chemical Physics, 2012, 14, 8067.	2.8	32
34	The structure and terahertz dynamics of water confined in nanoscale pools in salt solutions. Faraday Discussions, 2011, 150, 493.	3.2	20
35	Bi-directional terahertz emission from gold-coated nanogratings by excitation via femtosecond laser pulses. Applied Physics B: Lasers and Optics, 2011, 102, 551-554.	2.2	19
36	Rattling the cage: Micro- to mesoscopic structure in liquids as simple as argon and as complicated as water. Journal of Molecular Liquids, 2011, 159, 2-8.	4.9	37

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37	Terahertz dynamics of ionic liquids from a combined dielectric relaxation, terahertz, and optical Kerr effect study: evidence for mesoscopic aggregation. Proceedings of SPIE, 2010, , .	0.8	1
38	Optical Kerr-effect study of trans- and cis-1,2-dichloroethene: liquidâ€“liquid transition or super-Arrhenius relaxation. Physical Chemistry Chemical Physics, 2010, 12, 4191.	2.8	17
39	Universal nonexponential relaxation: Complex dynamics in simple liquids. Journal of Chemical Physics, 2009, 131, 201101.	3.0	31
40	Generation of ultrafast terahertz radiation pulses on metallic nanostructured surfaces. Optics Express, 2009, 17, 2470.	3.4	81
41	Dynamics of Imidazolium Ionic Liquids from a Combined Dielectric Relaxation and Optical Kerr Effect Study: Evidence for Mesoscopic Aggregation. Journal of the American Chemical Society, 2009, 131, 11140-11146.	13.7	248
42	Glasslike Behaviour in Aqueous Electrolyte Solutions. Springer Series in Chemical Physics, 2009, , 484-486.	0.2	1
43	Structural relaxation in the hydrogen-bonding liquids N-methylacetamide and water studied by optical Kerr effect spectroscopy. Journal of Chemical Physics, 2008, 128, 154516.	3.0	59
44	Glasslike behavior in aqueous electrolyte solutions. Journal of Chemical Physics, 2008, 128, 161102.	3.0	94
45	Terahertz-pulse emission through excitation of surface plasmons in metallic nanostructures. , 2008, , .		0
46	200â€‚ns pulse high-voltage supply for terahertz field emission. Review of Scientific Instruments, 2007, 78, 043103.	1.3	3
47	Terahertz-Pulse Emission Through Laser Excitation of Surface Plasmons in a Metal Grating. Physical Review Letters, 2007, 98, 026803.	7.8	108
48	Terahertz-pulse emission by laser excitation of surface plasmons in a metal grating. , 2007, , .		0
49	The Ultrafast Dynamics of Hydrogen-Bonded Liquids:â€‰ Molecular Structure-Dependent Occurrence of Normal Arrhenius or Fractional Stokesâ^'Einsteinâ^'Debye Rotational Diffusive Relaxation. Journal of Physical Chemistry B, 2007, 111, 9634-9643.	2.6	22
50	The Dynamics of Waterâ^'Protein Interaction Studied by Ultrafast Optical Kerr-Effect Spectroscopy. Journal of the American Chemical Society, 2007, 129, 3168-3172.	13.7	71
51	Coherence and Adiabaticity in Ultrafast Electron Transfer. Advances in Chemical Physics, 2007, , 263-309.	0.3	30
52	An experimental and numerical study of hydrogen-bonding in aqueous salts and methanol. Springer Series in Chemical Physics, 2007, , 427-429.	0.2	2
53	Direct observation of the â€˜lubricant of lifeâ€™ using ultrafast spectroscopies. Springer Series in Chemical Physics, 2007, , 504-506.	0.2	0
54	Terahertz Emission from Nano-structured Metal Surfaces. Springer Series in Chemical Physics, 2007, , 778-780.	0.2	0

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55	Understanding the Building Blocks of Life â€" Evidence of Hydrogen-Bonded Aggregation of N-Methylacetamide. Springer Series in Chemical Physics, 2007, , 442-444.	0.2	0
56	The effect of temperature and solvation on the ultrafast dynamics of N-methylacetamide. Chemical Physics Letters, 2006, 431, 155-159.	2.6	18
57	Femtosecond pumpâ€"probe measurements of non-radiative relaxation in LiAlO2:V3+. Journal of Physics Condensed Matter, 2006, 18, 3967-3974.	1.8	1
58	Alternating high-voltage biasing for terahertz large-area photoconductive emitters. Review of Scientific Instruments, 2006, 77, 083111.	1.3	8
59	Terahertz Emission from Nano-structured Metal Surfaces. , 2006, , .		0
60	Direct observation of the â€˜lubricant of lifeâ€™ using ultrafast spectroscopies. , 2006, , .		0
61	A complete experimental and numerical study of the terahertz dynamics of methanol. , 2006, , .		0
62	An integrated description of terahertz generation through optical rectification, charge transfer, and current surge. Optics Communications, 2005, 256, 400-413.	2.1	59
63	A new ultrafast technique for measuring the terahertz dynamics of chiral molecules: The theory of optical heterodyne-detected Raman-induced Kerr optical activity. Journal of Chemical Physics, 2005, 122, 244503.	3.0	2
64	Inter- and Intramolecular Hydrogen Bonding in Phenol Derivatives:â€‰ A Model System for Poly-l-tyrosine. Journal of Physical Chemistry B, 2005, 109, 19008-19017.	2.6	36
65	The effects of anion and cation substitution on the ultrafast solvent dynamics of ionic liquids: A time-resolved optical Kerr-effect spectroscopic study. Journal of Chemical Physics, 2003, 119, 464-477.	3.0	242
66	Low-Frequency Modes of Peptides and Globular Proteins in Solution Observed by Ultrafast OHD-RIKES Spectroscopy. Biophysical Journal, 2003, 85, 1903-1913.	0.5	117
67	A comparison of the low-frequency vibrational spectra of liquids obtained through infrared and Raman spectroscopies. Journal of Chemical Physics, 2003, 119, 11753-11764.	3.0	38
68	THz Emission from Charge-Transfer Reactions in Molecules Aligned in Solutions and Crystals. Springer Series in Chemical Physics, 2003, , 412-414.	0.2	1
69	Terahertz pulse generation in an organic crystal by optical rectification and resonant excitation of molecular charge transfer. Applied Physics Letters, 2002, 81, 4335-4337.	3.3	69
70	Time-Resolved Optical Kerr-Effect Spectroscopy of Low-Frequency Dynamics in Di-l-alanine, Poly-l-alanine, and Lysozyme in Solution. Journal of the American Chemical Society, 2002, 124, 12110-12111.	13.7	52
71	Nanoparticle metrology in sol-gels using multiphoton excited fluorescence. Measurement Science and Technology, 2002, 13, 21-27.	2.6	55
72	Causality and the nature of information. Optics Communications, 2002, 209, 85-100.	2.1	43

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73	THz Emission from Charge-Transfer Reactions in Molecules Aligned in Solutions and Crystals. , 2002, , .		0
74	Evanescent-wave acceleration of ultrashort electron pulses. Applied Physics Letters, 2001, 79, 2130-2132.	3.3	68
75	<title>Multiphoton-excited fluorescence particle metrology: application to silica hydrogels</title>. , 2001, , .		1
76	Careyet al.Reply:. Physical Review Letters, 2001, 87, .	7.8	2
77	THz-Pulse Studies of Superluminal Propagation in Frustrated Total Internal Reflection. Springer Series in Chemical Physics, 2001, , 238-240.	0.2	0
78	Tunneling of single-cycle terahertz pulses through waveguides. Optics Communications, 2000, 176, 429-435.	2.1	26
79	The Strathclyde terahertz to optical pulse source (TOPS). Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 445, 317-319.	1.6	33
80	Evanescent-wave acceleration of femtosecond electron bunches. Nuclear Instruments and Methods in Physics Research, Section A: Accelerators, Spectrometers, Detectors and Associated Equipment, 2000, 445, 324-328.	1.6	23
81	Noncausal Time Response in Frustrated Total Internal Reflection?. Physical Review Letters, 2000, 84, 1431-1434.	7.8	63
82	THz-pulse studies of superluminal propagation in frustrated total internal reflection. , 2000, , .		0
83	Electron acceleration with femtosecond evanescent-waves. , 2000, , .		0
84	Time-Resolved Terahertz Spectroscopy of Condensed Phase Reactions. Laser Chemistry, 1999, 19, 145-148.	0.5	0
85	Near-infrared excitation of alkane ultra-violet fluorescence. Chemical Physics Letters, 1999, 299, 395-402.	2.6	12
86	Superluminal terahertz pulses. Optics Letters, 1999, 24, 25.	3.3	71
87	Near-field phenomena observed with terahertz pulses. , 1999, , .		0
88	Ultrafast Dipole Solvation Measured in the Far Infrared. Physical Review Letters, 1997, 79, 3078-3081.	7.8	58
89	Femtosecond far-infrared pump-probe spectroscopy: A new tool for studying low-frequency vibrational dynamics in molecular condensed phases. Chemical Physics Letters, 1997, 274, 365-371.	2.6	82
90	Level Mixing and Energy Redistribution in Bacterial Photosynthetic Reaction Centers. The Journal of Physical Chemistry, 1996, 100, 5562-5569.	2.9	73

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91	Femtosecond Infrared Spectroscopy of Low-Lying Excited States in Reaction Centers of Rhodobacter sphaeroides. The Journal of Physical Chemistry, 1996, 100, 5140-5148.	2.9	66
92	Excited state dynamics of bacteriorhodopsin revealed by transient stimulated emission spectra. Chemical Physics Letters, 1996, 261, 389-395.	2.6	91
93	Vibrational coherence in electron transfer: The tetracyanoethyleneâ€“pyrene complex. Journal of Chemical Physics, 1996, 105, 2287-2297.	3.0	131
94	Femtosecond Infrared Spectroscopy on Reaction Centers of Rb. Sphaeroides. , 1996, , 281-286.		0
95	Anisotropy as an ultrafast probe of electronic coherence in degenerate systems exhibiting Raman scattering, fluorescence, transient absorption and chemical reactions. Journal of Raman Spectroscopy, 1995, 26, 561-569.	2.5	61
96	The theory of ultrafast vibrational spectroscopy. Chemical Physics, 1995, 193, 211-236.	1.9	112
97	Porphyrin-Quinone Electron Transfer Revisited. The Role of Excited-State Degeneracy in Ultrafast Charge Transfer Reactions. Journal of the American Chemical Society, 1995, 117, 3749-3753.	13.7	67
98	Ultrafast charge transfer in an electron donorâ€“acceptor complex. Journal of Chemical Physics, 1994, 100, 4797-4810.	3.0	168
99	Luminescence studies of ultrafast energy transfer oscillations in dimers. Journal of Luminescence, 1994, 60-61, 735-738.	3.1	9
100	Regenerative amplification of 30-fs pulses in Ti:sapphire at 5 kHz. Optics Letters, 1994, 19, 895.	3.3	61
101	Direct measurement of electronic dephasing using anisotropy. Chemical Physics Letters, 1993, 206, 493-499.	2.6	109
102	Coherence effects in the anisotropy of optical experiments. Chemical Physics, 1993, 171, 179-188.	1.9	193
103	Ultrafast electron transfer in porphyrin-quinone systems. Journal of Inorganic Biochemistry, 1993, 51, 252.	3.5	0
104	Femtosecond intermolecular vibrational motion in pyrrole. Chemical Physics Letters, 1992, 193, 17-22.	2.6	52
105	Time-resolved Raman scattering with incoherent light. Physical Review A, 1990, 41, 6361-6375.	2.5	10
106	Raman fringe decay: properties of a four-wave mixing experiment with incoherent light. Journal of the Optical Society of America B: Optical Physics, 1990, 7, 1694.	2.1	4
107	High time resolution with incoherent light in the Raman-fringe decay. Physical Review Letters, 1989, 62, 3031-3033.	7.8	14
108	Diagrammatic density matrix analysis of the Raman photon echo. Chemical Physics, 1988, 125, 211-223.	1.9	11

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109	The interpretation of echo experiments. Chemical Physics, 1988, 125, 225-230.	1.9	14
110	No Raman echo in liquid nitrogen. Chemical Physics, 1988, 128, 549-553.	1.9	8
111	Prediction of mosquito species and population age structure using mid-infrared spectroscopy and supervised machine learning. Wellcome Open Research, 0, 4, 76.	1.8	2