Klaas Wynne

List of Publications by Year
in descending order

Source: https://exaly.com/author-pdf/4935852/publications.pdf

Version: 2024-02-01

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	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
2	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
3	Coherence effects in the anisotropy of optical experiments. Chemical Physics, 1993, 171, 179-188.	1.9	193
4	Terahertz underdamped vibrational motion governs protein-ligand binding in solution. Nature Communications, 2014, 5, 3999.	12.8	170
5	Ultrafast charge transfer in an electron donorâ€“acceptor complex. Journal of Chemical Physics, 1994, 100, 4797-4810.	3.0	168
6	Vibrational coherence in electron transfer: The tetracyanoethyleneâ€“pyrene complex. Journal of Chemical Physics, 1996, 105, 2287-2297.	3.0	131
7	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
8	The theory of ultrafast vibrational spectroscopy. Chemical Physics, 1995, 193, 211-236.	1.9	112
9	Direct measurement of electronic dephasing using anisotropy. Chemical Physics Letters, 1993, 206, 493-499.	2.6	109
10	Terahertz-Pulse Emission Through Laser Excitation of Surface Plasmons in a Metal Grating. Physical Review Letters, 2007, 98, 026803.	7.8	108
11	Glasslike behavior in aqueous electrolyte solutions. Journal of Chemical Physics, 2008, 128, 161102.	3.0	94
12	Excited state dynamics of bacteriorhodopsin revealed by transient stimulated emission spectra. Chemical Physics Letters, 1996, 261, 389-395.	2.6	91
13	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
14	Generation of ultrafast terahertz radiation pulses on metallic nanostructured surfaces. Optics Express, 2009, 17, 2470.	3.4	81
15	Level Mixing and Energy Redistribution in Bacterial Photosynthetic Reaction Centers. The Journal of Physical Chemistry, 1996, 100, 5562-5569.	2.9	73
16	Dynamics of RTILs: A comparative dielectric and OKE study. Journal of Molecular Liquids, 2014, 192, 19-25.	4.9	72
17	Superluminal terahertz pulses. Optics Letters, 1999, 24, 25.	3.3	71
18	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

#	Article	IF	Citations
19	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
20	Evanescent-wave acceleration of ultrashort electron pulses. Applied Physics Letters, 2001, 79, 2130-2132.	3.3	68
21	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
22	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
23	Observation of coherent delocalized phonon-like modes in DNA under physiological conditions. Nature Communications, 2016, 7, 11799.	12.8	66
24	Noncausal Time Response in Frustrated Total Internal Reflection?. Physical Review Letters, 2000, 84, 1431-1434.	7.8	63
25	Regenerative amplification of 30-fs pulses in Ti:sapphire at 5 kHz. Optics Letters, 1994, 19, 895.	3.3	61
26	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
27	An integrated description of terahertz generation through optical rectification, charge transfer, and current surge. Optics Communications, 2005, 256, 400-413.	2.1	59
28	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
29	Ultrafast Dipole Solvation Measured in the Far Infrared. Physical Review Letters, 1997, 79, 3078-3081.	7.8	58
30	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
31	Nanoparticle metrology in sol-gels using multiphoton excited fluorescence. Measurement Science and Technology, 2002, 13, 21-27.	2.6	55
32	Femtosecond intermolecular vibrational motion in pyrrole. Chemical Physics Letters, 1992, 193, 17-22.	2.6	52
33	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
34	Stokesâ€“Einsteinâ€“Debye Failure in Molecular Orientational Diffusion: Exception or Rule?. Journal of Physical Chemistry B, 2014, 118, 4600-4604.	2.6	48
35	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
36	Causality and the nature of information. Optics Communications, 2002, 209, 85-100.	2.1	43

#	Article	IF	Citations
37	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
38	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
39	Control over phase separation and nucleation using a laser-tweezing potential. Nature Chemistry, 2018, 10, 506-510.	13.6	38
40	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
41	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
42	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
43	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
44	Phonon-like Hydrogen-Bond Modes in Protic Ionic Liquids. Journal of the American Chemical Society, 2017, 139, 7160-7163.	13.7	35
45	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
46	The dynamic crossover in water does not require bulk water. Physical Chemistry Chemical Physics, 2012, 14, 8067.	2.8	32
47	Universal nonexponential relaxation: Complex dynamics in simple liquids. Journal of Chemical Physics, 2009, 131, 201101.	3.0	31
48	Coherence and Adiabaticity in Ultrafast Electron Transfer. Advances in Chemical Physics, 2007, , 263-309.	0.3	30
49	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
50	Rapid age-grading and species identification of natural mosquitoes for malaria surveillance. Nature Communications, 2022, 13, 1501.	12.8	28
51	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
52	Tunneling of single-cycle terahertz pulses through waveguides. Optics Communications, 2000, 176, 429-435.	2.1	26
53	Order Parameter of the Liquidâ€“Liquid Transition in a Molecular Liquid. Journal of Physical Chemistry Letters, 2015, 6, 38-43.	4.6	25
54	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

#	Article	IF	Citations
55	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
56	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
57	The Mayonnaise Effect. Journal of Physical Chemistry Letters, 2017, 8, 6189-6192.	4.6	22
58	The structure and terahertz dynamics of water confined in nanoscale pools in salt solutions. Faraday Discussions, 2011, 150, 493.	3.2	20
59	Frustration of crystallisation by a liquidâ€"crystal phase. Scientific Reports, 2017, 7, 42439.	3.3	20
60	Frustration vs Prenucleation: Understanding the Surprising Stability of Supersaturated Sodium Thiosulfate Solutions. Journal of Physical Chemistry B, 2018, 122, 7590-7596.	2.6	20
61	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
62	The effect of temperature and solvation on the ultrafast dynamics of N-methylacetamide. Chemical Physics Letters, 2006, 431, 155-159.	2.6	18
63	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
64	Using optical tweezing to control phase separation and nucleation near a liquidâ€"liquid critical point. Soft Matter, 2019, 15, 8279-8289.	2.7	17
65	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
66	The interpretation of echo experiments. Chemical Physics, 1988, 125, 225-230.	1.9	14
67	High time resolution with incoherent light in the Raman-fringe decay. Physical Review Letters, 1989, 62, 3031-3033.	7.8	14
68	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
69	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
70	Near-infrared excitation of alkane ultra-violet fluorescence. Chemical Physics Letters, 1999, 299, 395-402.	2.6	12
71	Diagrammatic density matrix analysis of the Raman photon echo. Chemical Physics, 1988, 125, 211-223.	1.9	11
72	Time-resolved Raman scattering with incoherent light. Physical Review A, 1990, 41, 6361-6375.	2.5	10

#	Article	IF	Citations
73	Luminescence studies of ultrafast energy transfer oscillations in dimers. Journal of Luminescence, 1994, 60-61, 735-738.	3.1	9
74	Crystal templating through liquidâ€“liquid phase separation. Chemical Communications, 2015, 51, 1139-1142.	4.1	9
75	No Raman echo in liquid nitrogen. Chemical Physics, 1988, 128, 549-553.	1.9	8
76	Alternating high-voltage biasing for terahertz large-area photoconductive emitters. Review of Scientific Instruments, 2006, 77, 083111.	1.3	8
77	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
78	Ultrabroadband terahertz spectroscopies of biomolecules and water. , 2013, , .		5
79	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
80	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
81	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
82	200â€‚ns pulse high-voltage supply for terahertz field emission. Review of Scientific Instruments, 2007, 78, 043103.	1.3	3
83	Ultrafast chemical dynamics. Physical Chemistry Chemical Physics, 2012, 14, 6154.	2.8	3
84	Careyet al.Reply:. Physical Review Letters, 2001, 87, .	7.8	2
85	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
86	An experimental and numerical study of hydrogen-bonding in aqueous salts and methanol. Springer Series in Chemical Physics, 2007, , 427-429.	0.2	2
87	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
88	<title>Multiphoton-excited fluorescence particle metrology: application to silica hydrogels</title>. , 2001, , .		1
89	Femtosecond pumpâ€“probe measurements of non-radiative relaxation in LiAlO2:V3+. Journal of Physics Condensed Matter, 2006, 18, 3967-3974.	1.8	1
90	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

#	Article	IF	Citations
91	Glasslike Behaviour in Aqueous Electrolyte Solutions. Springer Series in Chemical Physics, 2009, , 484-486.	0.2	1
92	THz Emission from Charge-Transfer Reactions in Molecules Aligned in Solutions and Crystals. Springer Series in Chemical Physics, 2003, , 412-414.	0.2	1
93	Ultrafast electron transfer in porphyrin-quinone systems. Journal of Inorganic Biochemistry, 1993, 51, 252.	3.5	0
94	Time-Resolved Terahertz Spectroscopy of Condensed Phase Reactions. Laser Chemistry, 1999, 19, 145-148.	0.5	0
95	Terahertz-pulse emission by laser excitation of surface plasmons in a metal grating. , 2007, , .		0
96	Terahertz-pulse emission through excitation of surface plasmons in metallic nanostructures. , 2008, , .		0
97	Terahertz optical Kerr effect spectroscopy of biological molecules. , 2014, , .		0
98	Reply to â€œComment on â€˜The Mayonnaise Effectâ€™â€•. Journal of Physical Chemistry B, 2018, 122, 2824-2824	2.6	0
99	THz-pulse studies of superluminal propagation in frustrated total internal reflection. , 2000, , .		0
100	Electron acceleration with femtosecond evanescent-waves. , 2000, , .		0
101	THz-Pulse Studies of Superluminal Propagation in Frustrated Total Internal Reflection. Springer Series in Chemical Physics, 2001, , 238-240.	0.2	0
102	THz Emission from Charge-Transfer Reactions in Molecules Aligned in Solutions and Crystals. , 2002, , .		0
103	Terahertz Emission from Nano-structured Metal Surfaces. , 2006, , .		0
104	Direct observation of the â€˜lubricant of lifeâ€™ using ultrafast spectroscopies. , 2006, , .		0
105	A complete experimental and numerical study of the terahertz dynamics of methanol. , 2006, , .		0
106	Direct observation of the â€˜lubricant of lifeâ€™ using ultrafast spectroscopies. Springer Series in Chemical Physics, 2007, , 504-506.	0.2	0
107	Terahertz Emission from Nano-structured Metal Surfaces. Springer Series in Chemical Physics, 2007, , 778-780.	0.2	0
108	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

#	Article	IF	Citations
109	Femtosecond Infrared Spectroscopy on Reaction Centers of Rb. Sphaeroides. , 1996, , 281-286.		0
110	Near-field phenomena observed with terahertz pulses. , 1999, , .		0
111	Control over phase separation and nucleation using a optical-tweezing potential. , 2018, , .		0