Karl-Michael Weitzel

List of Publications by Year
in descending order

92	1,408	361413	414414
papers	citations	20 h-index	32 g-index

94	94	94	877
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	High-resolution pulsed field ionization photoelectronâ€“photoion coincidence study of CH4: Accurate 0 K dissociation threshold for CH3+. Journal of Chemical Physics, 1999, 111, 8267-8270.	3.0	82
2	High-resolution pulsed field ionization photoelectron-photoion coincidence spectroscopy using synchrotron radiation. Review of Scientific Instruments, 1999, 70, 3892-3906.	1.3	77
3	Unusual mechanism for H3+ formation from ethane as obtained by femtosecond laser pulse ionization and quantum chemical calculations. Journal of Chemical Physics, 2011, 134, 114302.	3.0	51
4	Shifts in photoionization fragmentation onsets. A direct measure of cooling in a supersonic molecular beam. Chemical Physics, 1991, 150, 263-273.	1.9	50
5	Circular Dichroism in Ion Yields of Femtosecondâ€Laser Mass Spectrometry. ChemPhysChem, 2009, 10, 1199-1202.	2.1	45
6	Photoelectron Photoion Coincidence Studies of Ion Dissociation Dynamics. , 1991, , 259-296.		42
7	High-resolution pulsed field ionization photoelectron-photoion coincidence study of C2H2: Accurate 0 K dissociation threshold for C2H+. Physical Chemistry Chemical Physics, 1999, 1, 5259-5262.	2.8	42
8	ZEKE-PEPICO investigations of dissociation energies in ionic reactions. Chemical Physics Letters, 1994, 224, 371-380.	2.6	41
9	Analysis of Chirality by Femtosecond Laser Ionization Mass Spectrometry. Chirality, 2012, 24, 684-690.	2.6	39
10	Observation of Accurate Ion Dissociation Thresholds in Pulsed Field Ionization-Photoelectron Studies. Physical Review Letters, 2001, 86, 3526-3529.	7.8	38
11	State Selective Predissociation Spectroscopy of Hydrogen Bromide Ions (HBr+) via the 2Î£+ â†•2Îi(i=1/2, 3/2) Transition. Journal of Physical Chemistry A, 1998, 102, 1927-1934.	2.5	34
12	Bombardment induced ion transportâ€”Part II. Experimental potassium ion conductivities in borosilicate glass. Physical Chemistry Chemical Physics, 2011, 13, 20123.	2.8	32
13	Circular dichroism in ion yields employing femtosecond laser ionizationâ€”the role of laser pulse duration. Physical Chemistry Chemical Physics, 2011, 13, 2378-2386.	2.8	31
14	The binding energies of small Ar, CO and N2 cluster ions. International Journal of Mass Spectrometry, 2002, 214, 175-212.	1.5	30
15	The Kinetics of Methyl Loss from Ethylbenzene and Xylene Ions:Â The Tropylium versus Benzylium Story Revisitedâ€. Journal of Physical Chemistry A, 2003, 107, 10625-10630.	2.5	30
16	The Determination of the Transition State Structure from the J Dependence of the Dissociation Energy E₀ (J): The Methane and Ethane Ion Dissociation. Zeitschrift Fur Elektrotechnik Und Elektrochemie, 1993, 97, 134-139.	0.9	28
17	Formation of fragment ions (H+, H3+, CH3+) from ethane in intense femtosecond laser fields â€“ from understanding to control. Faraday Discussions, 2013, 163, 461.	3.2	28
18	Experimental Studies on Work Functions of Li⁺ Ions and Electrons in the Battery Electrode Material LiCoO₂: A Thermodynamic Cycle Combining Ionic and Electronic Structure. Advanced Energy Materials, 2018, 8, 1703411.	19.5	28

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19	A new route to the dissociation energy of ionic and neutral HCl via lineshape analysis of single rotational transitions. Physical Chemistry Chemical Physics, 2002, 4, 4083-4086.	2.8	24
20	State-Selective Predissociation Spectroscopy of HCl+and DCl+Ionsâ€. Journal of Physical Chemistry A, 2004, 108, 9924-9930.	2.5	23
21	Bombardment Induced Potassium Ion Transport Through a Sodium Ion Conductor: Conductivities and Diffusion Profiles. Zeitschrift Fur Physikalische Chemie, 2012, 226, 341-353.	2.8	23
22	Photoelectron Circular Dichroism in the Photodetachment of Amino Acid Anions. Angewandte Chemie - International Edition, 2021, 60, 17861-17865.	13.8	21
23	The distinction of direct and pulsed-field ionized zero kinetic energy photoelectrons in electron/ion coincidence experiments. Chemical Physics Letters, 1996, 251, 295-300.	2.6	20
24	Field effects in alkali ion emitters: Transition from Langmuirâ€“Child to Schottky regime. Journal of Applied Physics, 2010, 107, .	2.5	19
25	Threshold photoelectron photoion coincidence study of the ethane loss from energy selected pentane ions cooled in a supersonic expansion. International Journal of Mass Spectrometry and Ion Processes, 1991, 107, 301-317.	1.8	18
26	The resonance enhanced multiphoton ionisation spectroscopy of ammonia isotopomers NH3, NH2D, NHD2 and ND3. Physical Chemistry Chemical Physics, 2005, 7, 1527.	2.8	18
27	Rotational dependence of the proton-transfer reaction HBr++CO2â†'HOCO++Br. I. Energy versus angular momentum effects. Journal of Chemical Physics, 2010, 132, 174305.	3.0	18
28	Transport of ions in a mixed Na+/K+ ion conducting glass - electrodiffusion profiles and electrochemical interphase formation. Electrochimica Acta, 2016, 191, 616-623.	5.2	18
29	On the control of product yields in the photofragmentation of deuteriumchlorid ions (DCl+). Journal of Chemical Physics, 2005, 123, 164308.	3.0	17
30	Formation of C7H7+ ions from ethylbenzene and o-xylene ions: Fragmentation versus isomerization. International Journal of Mass Spectrometry, 2006, 252, 189-196.	1.5	17
31	Control of Branching Ratios in the Dissociative Ionization of Deuterium Chloride. Journal of Physical Chemistry A, 2006, 110, 6395-6398.	2.5	16
32	Coincident measurement of photo-ion circular dichroism and photo-electron circular dichroism. Physical Chemistry Chemical Physics, 2020, 22, 13707-13712.	2.8	16
33	State selective predissociation spectroscopy of hydrogen chloride ions (HCl⁺) via the A²Î£⁺ â†•X²Î_{3/2} transition. Molecular Physics, 1999, 97, 43-52.	1.7	15
34	Rotational State Distribution of HBr+ Ions Formed by Resonance Enhanced Multiphoton Ionization. Zeitschrift Fur Physikalische Chemie, 2004, 218, 311-326.	2.8	15
35	Circular Dichroism in Ion Yields in Multiphoton Ionization of (R)-Propylene Oxide Employing Femtosecond Laser Pulses. Zeitschrift Fur Physikalische Chemie, 2011, 225, 587-594.	2.8	15
36	On the distinction between tight and loose transition states in unimolecular dissociations. Chemical Physics Letters, 1991, 186, 490-494.	2.6	14

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37	Unimolecular and bimolecular reactions of state selected HCl+ ions formed via the R(1) pump line of the f 3Î”2â†1Î£+ REMPI spectrum. Physical Chemistry Chemical Physics, 2001, 3, 2253-2257.	2.8	14
38	Controlling the Electrons Provides Means for Controlling Chemistry. ChemPhysChem, 2007, 8, 213-215.	2.1	13
39	Distinction of orthoâ€•and paraâ€Xylene by Femtosecondâ€Laser Mass Spectrometry. ChemPhysChem, 2007, 8, 2185-2188.	2.1	13
40	Rotational dependence of the proton-transfer reaction HBr+ + CO2 â†' HOCO+ + Br. II. Comparison of HBr+ (2Î3/2) and HBr+ (2Î1/2). Journal of Chemical Physics, 2010, 133, 234301.	3.0	13
41	Bombardment Induced Transport of Rb+ through a K+ Conducting Glass vs. K+ Transport through a Rb+ Conducting Glass. Zeitschrift Fur Physikalische Chemie, 2014, 228, 609-627.	2.8	13
42	Charge attachment induced transport â€“ bulk and grain boundary diffusion of potassium in PrMnO₃. Physical Chemistry Chemical Physics, 2017, 19, 9762-9769.	2.8	13
43	Qualitative and Quantitative Distinction of ortho-, meta-, and para-Fluorotoluene by Means of Chirped Femtosecond Laser Ionization. Analytical Chemistry, 2020, 92, 5492-5499.	6.5	13
44	Bondâ€dissociation energies of cationsâ€"Pushing the limits to quantum state resolution. Mass Spectrometry Reviews, 2011, 30, 221-235.	5.4	12
45	Bombardment induced ion transport â€“ part IV: ionic conductivity of ultra-thin polyelectrolyte multilayer films. Physical Chemistry Chemical Physics, 2016, 18, 4345-4351.	2.8	12
46	Laser pulse control of photofragmentation in DCl+: The effect of carrier envelope phase. Chemical Physics, 2007, 338, 277-284.	1.9	10
47	Effect of structure and composition on the DC-conductivity in calcium phosphate glasses of the type x CaOâ‹…(55âˆ'x) M2Oâ‹…45 P2O5 (M=Na, K, Rb, Cs). Journal of Non-Crystalline Solids, 2015, 430, 73-78.	3.1	10
48	Site energy distribution of sodium ions in a sodium rubidium borate glass. Physical Chemistry Chemical Physics, 2019, 21, 26251-26261.	2.8	10
49	Theoretical Study of the Dynamics of the HBr⁺ + CO₂ â†' HOCO⁺ + Br Reaction. Journal of Physical Chemistry A, 2020, 124, 9119-9127.	2.5	10
50	The formation of ArCO+ ions by dissociative ionization of argon/carbonmonoxide clusters. Journal of Chemical Physics, 1997, 107, 6667-6676.	3.0	9
51	Ion Transport Through Polyelectrolyte Multilayers. Macromolecular Rapid Communications, 2013, 34, 1820-1826.	3.9	9
52	The work function for Li+-ion emission from spodumene: A complete characterization of thermionic emission. Journal of Applied Physics, 2016, 120, .	2.5	9
53	Distinction of Structural Isomers of Benzenediamin and Difluorobenzene by Means of Chirped Femtosecond Laser Ionization Mass Spectrometry. Zeitschrift Fur Physikalische Chemie, 2018, 232, 689-703.	2.8	9
54	Electrodiffusion versus Chemical Diffusion in Alkali Calcium Phosphate Glasses: Implication of Structural Changes. Journal of Physical Chemistry C, 2017, 121, 3203-3211.	3.1	8

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55	Photoelectron Circular Dichroism of Electrosprayed Gramicidin Anions. Journal of Physical Chemistry Letters, 2022, 13, 6110-6116.	4.6	8
56	Demonstration of the conductive species in â€œLi-freeâ€•solid solvent doped with LiBH4 and its Li+ dominating conduction mechanism. Electrochimica Acta, 2018, 283, 1188-1194.	5.2	7
57	A chemical dynamics study of the HClÂ+ HCl+ reaction. International Journal of Mass Spectrometry, 2021, 462, 116515.	1.5	7
58	Transport of Caesium ions through thin poly-p-xylylene films. Thin Solid Films, 2009, 517, 4583-4586.	1.8	6
59	Self-reactions in the HCl⁺ (DCl⁺) + HCl system: a state-selective investigation of the role of rotation. Physical Chemistry Chemical Physics, 2015, 17, 16454-16461.	2.8	6
60	Photoionization Yields in Intense fs-Laser Fields â€“ A Systematic Investigation of Chirp Effects. Zeitschrift Fur Physikalische Chemie, 2015, 229, 1729-1746.	2.8	6
61	Competing K+- and Ca++-ion transport in calcium-potassium-phosphate-glasses. Journal of Non-Crystalline Solids, 2016, 452, 231-237.	3.1	6
62	Remote access to electrical conductivity by charge attachment from an ambient pressure plasma. Applied Physics Letters, 2018, 113, .	3.3	6
63	Electron attachment induced ion transport â€” Part I: Conductivities and activation energies. Solid State Ionics, 2019, 339, 114996.	2.7	6
64	Ionâ€“Molecule Reactions of State Selected HCl+ Ions with Carbon Dioxide and Ethene. Zeitschrift Fur Physikalische Chemie, 2001, 215, .	2.8	5
65	Reactive scattering of NH3+ (v, J) ions at film covered indium tin oxide (ITO) surfaces. International Journal of Mass Spectrometry, 2008, 277, 245-250.	1.5	5
66	Time-correlated transport of potassium ions through a thin poly-p-xylylene membrane. Journal Physics D: Applied Physics, 2010, 43, 025501.	2.8	5
67	Low energy bombardment induced cesium ion transport through a sodium ion conductor: Concentration profiles and diffusion coefficients. Solid State Ionics, 2013, 242, 20-25.	2.7	5
68	Highways for ions in polymers - 3Dâ€“imaging of electrochemical interphase formation. Electrochimica Acta, 2015, 170, 122-130.	5.2	5
69	Coincident measurement of photo-ion circular dichroism and photo-electron circular dichroism in 1-phenylethylamine. Physical Chemistry Chemical Physics, 2022, 24, 15904-15911.	2.8	5
70	Potassium ion transport through poly-para-xylylene films. IEEE Transactions on Dielectrics and Electrical Insulation, 2012, 19, 1167-1174.	2.9	4
71	Proton and deuteron electrodiffusion in a D263T borosilicate glass by controlled charge attachment from a fs-plasma. Solid State Ionics, 2020, 357, 115469.	2.7	4
72	The Potential Energy Profile of the HBr⁺ + HCl Bimolecular Collision. Journal of Physical Chemistry A, 2022, 126, 1465-1474.	2.5	4

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73	Ab initio study of the equilibrium conformation of the ArCO+ ion. Chemical Physics, 1998, 237, 43-49.	1.9	3
74	Two-Photon Dissociation Spectroscopy of State-Selected HCl+ and DCl+ Ions. ChemPhysChem, 2004, 5, 1507-1512.	2.1	3
75	Control of competing dissociation channels by femtosecond interferometry: Aspects of electron and nuclear dynamics. Chemical Physics Letters, 2010, 487, 209-213.	2.6	3
76	Electron attachment induced ion transport â€“ Part II: The evolution of blocking of charge transport. Solid State Ionics, 2019, 339, 114997.	2.7	3
77	Li⁺ Ion Site Energy Distribution in Lithium Aluminum Germanium Phosphate. Journal of Physical Chemistry C, 2021, 125, 4977-4985.	3.1	3
78	Self-Reactions in the HBr+ (DBr+) + HBr System: A State-Selective Investigation of the Role of Rotation. Journal of Physical Chemistry A, 2020, 124, 8461-8468.	2.5	3
79	The role of dielectric breakdown in the electro-thermal poling of D263T glass. IEEE Transactions on Dielectrics and Electrical Insulation, 2020, 27, 1422-1427.	2.9	2
80	Pathways for Alkali Ion Transport in Mold Compounds. ECS Journal of Solid State Science and Technology, 2020, 9, 053001.	1.8	2
81	Ion Selective Transport of Alkali Ions through a Polyelectrolyte Membrane. Advanced Materials Interfaces, 2020, 7, 2000419.	3.7	2
82	Photoelektronenâ€Zirkulardichroismus im Photodetachment von AminosÃurenâ€Anionen. Angewandte Chemie, 2021, 133, 18005-18009.	2.0	2
83	The ionic conductivity of alkali aluminum germanium phosphate glassesÂâ€“ comparison of Plasma CAIT with two electrode DC measurements. Zeitschrift Fur Physikalische Chemie, 2022, 236, 1001-1012.	2.8	2
84	Hydrogen Migration in Intense Laser Fields: Analysis and Control in Concert. Springer Series in Chemical Physics, 2015, , 1-21.	0.2	2
85	Femtosecond interferometry of molecular dynamics â€“ the role of relative and absolute phase of two individual laser pulses. Zeitschrift Fur Physikalische Chemie, 2011, 225, 1073-1088.	2.8	1
86	The Fluoroperovskite TlMnF₃. Zeitschrift Fur Anorganische Und Allgemeine Chemie, 2018, 644, 1557-1561.	1.2	1
87	Lithium-Ion Batteries: Experimental Studies on Work Functions of Li+ Ions and Electrons in the Battery Electrode Material LiCoO2 : A Thermodynamic Cycle Combining Ionic and Electronic Structure (Adv.) Tj ETQq1 1 0.784314 rgBT /Over	19.4	1
88	Special Issue Commemorating the Paper â€œThe Diffraction of X-rays by Crystalsâ€•by William Lawrence Bragg (ZPC, 104, 337â€“348 (1923); Nobel Lecture, September 6, 1922). Zeitschrift Fur Physikalische Chemie, 2014, 228, 953-956.	2.8	0
89	Combined measurement of electronic and ionic work functions, w(eâ^') and w(Li+), for lithium phosphate. Journal of Applied Physics, 2020, 128, .	2.5	0
90	On the disintegration of copper electrodes and the transport of Cu+ ions in a sodium potassium borosilicate glass. Solid State Ionics, 2021, 359, 115533.	2.7	0

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91	(Invited) Charge Attachmentâ€“Induced Transport: Toward New Paradigms in Solid State Electrochemistry. ECS Meeting Abstracts, 2022, MA2022-01, 1147-1147.	0.0	0
92	Plasma Charge Carrier Attachment Induced Transport in Solid Ionic Materials. ECS Meeting Abstracts, 2022, MA2022-01, 1057-1057.	0.0	0