

Thomas Schlathöf

List of Publications by Year in descending order

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126
papers

2,505
citations

147801

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44
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127
all docs

127
docs citations

127
times ranked

1448
citing authors

#	ARTICLE	IF	CITATIONS
1	Charge Driven Fragmentation of Nucleobases. <i>Physical Review Letters</i> , 2003, 91, 053401.	7.8	121
2	Ion-Induced Biomolecular Radiation Damage: From Isolated Nucleobases to Nucleobase Clusters. <i>ChemPhysChem</i> , 2006, 7, 2339-2345.	2.1	82
3	Photodissociation of protonated leucine-enkephalin in the VUV range of 8–40 eV. <i>Journal of Chemical Physics</i> , 2011, 134, 024314.	3.0	77
4	Strong Velocity Effects in Collisions of He ⁺ with Fullerenes. <i>Physical Review Letters</i> , 1999, 82, 73-76.	7.8	73
5	C _q -induced excitation and fragmentation of uracil: effects of the projectile electronic structure. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2002, 35, 4373-4381.	1.5	67
6	Quantification of ion-induced molecular fragmentation of isolated 2-deoxy-d-ribose molecules. <i>Physical Chemistry Chemical Physics</i> , 2006, 8, 1922-1928.	2.8	64
7	IONIZATION AND FRAGMENTATION OF ANTHRACENE UPON INTERACTION WITH keV PROTONS AND $\hat{\pm}$ PARTICLES. <i>Astrophysical Journal</i> , 2010, 708, 435-444.	4.5	61
8	Dissociation of water molecules upon keV H ⁺ - and He _q ⁺ -induced ionization. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2005, 38, 4085-4094.	1.5	52
9	Roadmap on photonic, electronic and atomic collision physics: I. Light-matter interaction. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2019, 52, 171001.	1.5	52
10	Improving proton therapy by metal-containing nanoparticles: nanoscale insights. <i>International Journal of Nanomedicine</i> , 2016, 11, 1549.	6.7	50
11	Deexcitation Dynamics of Superhydrogenated Polycyclic Aromatic Hydrocarbon Cations after Soft-x-Ray Absorption. <i>Physical Review Letters</i> , 2014, 113, 053002.	7.8	47
12	H ₂ formation on PAHs in photodissociation regions: a high-temperature pathway to molecular hydrogen. <i>Astronomy and Astrophysics</i> , 2015, 579, A72.	5.1	46
13	The sequence to hydrogenate coronene cations: A journey guided by magic numbers. <i>Scientific Reports</i> , 2016, 6, 19835.	3.3	46
14	Charge driven fragmentation of biologically relevant molecules. <i>International Journal of Mass Spectrometry</i> , 2004, 233, 173-179.	1.5	45
15	Ion-Induced Fragmentation of Amino Acids: Effect of the Environment. <i>ChemPhysChem</i> , 2011, 12, 930-936.	2.1	44
16	Near-Edge X-ray Absorption Mass Spectrometry of a Gas-Phase Peptide. <i>Journal of Physical Chemistry A</i> , 2012, 116, 10745-10751.	2.5	44
17	Collisions of with neutral : Charge transfer and fragmentation. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1998, 31, 1321-1331.	1.5	42
18	Multiple ionization and fragmentation of the DNA base thymine by interaction with C _q ⁺ ions. <i>European Physical Journal D</i> , 2003, 24, 161-164.	1.3	42

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19	Interactions of neutral and singly charged keV atomic particles with gas-phase adenine molecules. <i>Journal of Chemical Physics</i> , 2007, 127, 034301.	3.0	42
20	Fragmentation of $\hat{1}\pm$ - and $\hat{1}^2$ -alanine molecules by ions at Bragg-peak energies. <i>Journal of Chemical Physics</i> , 2008, 128, 074306.	3.0	41
21	Projectile atomic-number effect on ion-induced fragmentation and ionization of fullerenes. <i>Physical Review A</i> , 2001, 63, .	2.5	40
22	Peptide fragmentation by keV ion-induced dissociation. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 3376.	2.8	39
23	ZOscillations in Ion-Induced Fullerene Fragmentation. <i>Physical Review Letters</i> , 2000, 84, 4076-4079.	7.8	37
24	Statistical fragmentation of doubly charged anthracene induced by fluorine-beam impact at 3 keV. <i>Physical Review A</i> , 2012, 85, .	2.5	37
25	Ionâ€“biomolecule interactions and radiation damage. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2005, 233, 62-69.	1.4	36
26	HYDROGENATION OF PAH CATIONS: A FIRST STEP TOWARD H ₂ FORMATION. <i>Astrophysical Journal Letters</i> , 2012, 761, L33.	8.3	36
27	Electron capture and loss in the scattering of oxygen atoms and ions on Mg, Al and Ag surfaces. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1997, 125, 283-287.	1.4	35
28	Charge Localization in Collision-Induced Multiple Ionization of van der Waals Clusters with Highly Charged Ions. <i>Physical Review Letters</i> , 2002, 88, 143401.	7.8	35
29	Precise Determination of 2â€“Deoxyâ€“Dâ€“Ribose Internal Energies after keV Proton Collisions. <i>ChemPhysChem</i> , 2008, 9, 1254-1258.	2.1	35
30	Absolute fragmentation cross sections in atom-molecule collisions: Scaling laws for non-statistical fragmentation of polycyclic aromatic hydrocarbon molecules. <i>Journal of Chemical Physics</i> , 2014, 140, 224306.	3.0	35
31	Electronic versus vibrational excitation in Heq+ collisions with fullerenes. <i>International Journal of Mass Spectrometry</i> , 1999, 192, 245-257.	1.5	34
32	Near edge X-ray absorption mass spectrometry of gas phase proteins: the influence of protein size. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 26213-26223.	2.8	34
33	Fragmentation of protonated oligonucleotides by energetic photons and C^{q+} ions. <i>Physical Review A</i> , 2013, 87, .	2.5	33
34	Roadmap on dynamics of molecules and clusters in the gas phase. <i>European Physical Journal D</i> , 2021, 75, 1.	1.3	32
35	Coulomb explosion of diatomic molecules in intense XUV fields mapped by partial covariance. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2013, 46, 164028.	1.5	31
36	Hollow Atom Dynamics on LiF Covered Au(111): Role of the Surface Electronic Structure. <i>Physical Review Letters</i> , 1998, 81, 1219-1222.	7.8	30

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37	Scattering of swift molecules, H ₂ and CO ₂ , from metal surfaces. <i>Surface Science</i> , 1994, 301, 326-336.	1.9	28
38	Ion-induced ionization and fragmentation of DNA building blocks. <i>Physica Scripta</i> , 2006, 73, C113-C117.	2.5	27
39	Kinetic energy releases of small amino acids upon interaction with keV ions. <i>European Physical Journal D</i> , 2009, 51, 81-87.	1.3	26
40	Ionization and Fragmentation Modes of Nucleobases after Collisions with Multiply Charged Ions. <i>Physica Scripta</i> , 2004, 110, 336.	2.5	25
41	Fast side-chain losses in keV ion-induced dissociation of protonated peptides. <i>International Journal of Mass Spectrometry</i> , 2011, 299, 64-70.	1.5	24
42	A MOLECULAR DYNAMICS STUDY ON SLOW ION INTERACTIONS WITH THE POLYCYCLIC AROMATIC HYDROCARBON MOLECULE ANTHRACENE. <i>Astrophysical Journal</i> , 2014, 783, 61.	4.5	24
43	Dissociation of CO induced by ions: II. Dissociation pathways and states. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 1997, 30, 5849-5860.	1.5	23
44	Soft X-ray Spectroscopy as a Probe for Gas-phase Protein Structure: Electron Impact Ionization from Within. <i>Chemistry - A European Journal</i> , 2018, 24, 7631-7636.	3.3	23
45	Response of Polyatomic Molecules to Ultrastrong Laser- and Ion-Induced Fields. <i>Physical Review Letters</i> , 2005, 94, 233001.	7.8	22
46	Ion-induced polycyclic aromatic hydrocarbon collisions: kinetic energy releases for specific fragmentation channels. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2013, 46, 245201.	1.5	22
47	Towards imaging of ultrafast molecular dynamics using FELs. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2013, 46, 164029.	1.5	22
48	Atomic hydrogen interactions with gas-phase coronene cations: hydrogenation versus fragmentation. <i>Physical Chemistry Chemical Physics</i> , 2018, 20, 22427-22438.	2.8	22
49	Length effects in VUV photofragmentation of protonated peptides. <i>Physical Chemistry Chemical Physics</i> , 2012, 14, 4351.	2.8	21
50	Activation energies for fragmentation channels of anthracene dications: experiment and theory. <i>Journal of Physics B: Atomic, Molecular and Optical Physics</i> , 2012, 45, 215201.	1.5	20
51	The Sequence of Coronene Hydrogenation Revealed by Gas-phase IR Spectroscopy. <i>Astrophysical Journal</i> , 2019, 875, 27.	4.5	20
52	Dissociative scattering of hydrogen from Pd(110) and Pd(110) + K. <i>Chemical Physics Letters</i> , 1992, 200, 465-468.	2.6	19
53	Influence of hydrogen on the stability of positively charged silicon dioxide clusters. <i>Journal of Chemical Physics</i> , 2000, 113, 2419-2422.	3.0	19
54	Heavy ion induced damage to plasmid DNA: plateau region vs. spread out Bragg-peak. <i>European Physical Journal D</i> , 2011, 63, 359-367.	1.3	18

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55	Radical-driven processes within a peptidic sequence of type I collagen upon single-photon ionisation in the gas phase. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 22895-22904.	2.8	17
56	Direct Radiation Effects on the Structure and Stability of Collagen and Other Proteins. <i>ChemBioChem</i> , 2019, 20, 2972-2980.	2.6	17
57	Molecular fragmentation by slow highly charged ion impact. <i>Europhysics Letters</i> , 2000, 49, 41-47.	2.0	16
58	Scattering of carbon dioxide molecules from Pd(111) surfaces. <i>Surface Science</i> , 1995, 323, 207-218.	1.9	15
59	Near edge X-ray absorption mass spectrometry on coronene. <i>Journal of Chemical Physics</i> , 2015, 142, 024308.	3.0	15
60	A comparative VUV absorption mass-spectroscopy study on protonated peptides of different size. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 20608-20618.	2.8	14
61	Five-body calculations of D ₂ fragmentation by Xe ¹⁹⁺ impact. <i>Physical Review A</i> , 1999, 60, 2112-2117.	2.5	13
62	Multiple Ionization of Free Ubiquitin Molecular Ions in Extreme Ultraviolet Free-Electron Laser Pulses. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 10741-10745.	13.8	13
63	Molecular hydrogen formation on interstellar PAHs through Eley-Rideal abstraction reactions. <i>Monthly Notices of the Royal Astronomical Society</i> , 0, , .	4.4	13
64	Hydrogenated carbon clusters produced by highly charged ion impact on solid. <i>European Physical Journal D</i> , 2000, 12, 323-327.	1.3	12
65	The interaction of small molecules with Pd and K covered Pd surfaces at energies from 200 keV to 6 keV. <i>Surface Science</i> , 1996, 363, 79-84.	1.9	11
66	Scattering of fast N ₂ from Pd(111): A classical trajectory study. <i>Journal of Chemical Physics</i> , 1997, 106, 4723-4733.	3.0	11
67	IonCCD Detector for Miniature Sector-Field Mass Spectrometer: Investigation of Peak Shape and Detector Surface Artifacts Induced by keV Ion Detection. <i>Journal of the American Society for Mass Spectrometry</i> , 2011, 22, 1872-84.	2.8	11
68	Femtosecond laser induced ionization and dissociation of gas-phase protonated leucine enkephalin. <i>International Journal of Mass Spectrometry</i> , 2014, 365-366, 365-371.	1.5	11
69	Single-photon absorption of isolated collagen mimetic peptides and triple-helix models in the VUV-X energy range. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 18321-18329.	2.8	11
70	Interactions of fast N ₂ molecules with palladium surfaces. <i>Surface Science</i> , 1996, 352-354, 195-200.	1.9	9
71	Scattering of fast H ₂ molecules from Pd surfaces: classical trajectory simulations. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1996, 115, 206-210.	1.4	9
72	Electronic stopping in ion-fullerene collisions. <i>Applied Physics A: Materials Science and Processing</i> , 2001, 72, 281-287.	2.3	9

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73	Plasmid DNA damage by heavy ions at spread-out Bragg peak energies. <i>European Physical Journal D</i> , 2010, 60, 51-58.	1.3	9
74	Electron capture and deprotonation processes observed in collisions between Xe ⁸⁺ and multiply protonated cytochrome-C. <i>Physical Review A</i> , 2014, 89, .	2.5	9
75	Scattering of Small Molecules at Surfaces. <i>Physica Status Solidi (B): Basic Research</i> , 1995, 192, 301-311.	1.5	8
76	Energy loss of light ions scattered off Al(110) single crystal surfaces at low energy. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1996, 115, 31-33.	1.4	8
77	Sputtering of hollow atoms from carbon surfaces. <i>Physical Review A</i> , 2000, 62, .	2.5	8
78	Molecule scattering from solid surfaces: Orientation and surface corrugation effects. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1997, 125, 194-200.	1.4	7
79	Collision induced fragmentation of free sulfur clusters. <i>International Journal of Mass Spectrometry</i> , 2008, 277, 197-205.	1.5	7
80	Hole Migration in Telomere-Based Oligonucleotide Anions and G-Quadruplexes. <i>Chemistry - A European Journal</i> , 2019, 25, 16114-16119.	3.3	7
81	Photoinduced Processes within Noncovalent Complexes Involved in Molecular Recognition. <i>Chemistry - A European Journal</i> , 2020, 26, 2243-2250.	3.3	7
82	Irradiation of isolated collagen mimetic peptides by x rays and carbon ions at the Bragg-peak energy. <i>Physical Review A</i> , 2018, 98, .	2.5	6
83	Near-Edge Soft X-ray Absorption Mass Spectrometry of Protonated Melittin. <i>Journal of the American Society for Mass Spectrometry</i> , 2018, 29, 2138-2151.	2.8	6
84	Mass Spectral Signatures of Complex Post-Translational Modifications in Proteins: A Proof-of-Principle Based on X-ray Irradiated Vancomycin. <i>Journal of the American Society for Mass Spectrometry</i> , 2020, 31, 1738-1743.	2.8	6
85	Site-selective soft X-ray absorption as a tool to study protonation and electronic structure of gas-phase DNA. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 11900-11906.	2.8	6
86	Charge exchange of swift molecules H ₂ ⁺ , H ₂ , CO ₂ ⁺ and CO ₂ , at Pd(111) surfaces. <i>Nuclear Instruments & Methods in Physics Research B</i> , 1995, 100, 352-355.	1.4	5
87	Energy loss of keV He ₂ ⁺ scattered off an Al(110) surface. <i>Surface Science</i> , 1998, 409, 541-552.	1.9	5
88	Probing Structural Information of Gas-Phase Peptides by Near-Edge X-ray Absorption Mass Spectrometry. <i>Journal of the American Society for Mass Spectrometry</i> , 2021, 32, 670-684.	2.8	5
89	Low energy carbon dioxide scattering from Pd(111) surfaces. <i>Surface Science</i> , 1995, 331-333, 311-316.	1.9	4
90	L-shell filling of N ₆ ⁺ and O ₇ ⁺ ions from a clean and LiF-covered Au(111) surface. <i>Physical Review A</i> , 1999, 60, 3800-3808.	2.5	4

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91	Dissociation of fast N ₂ molecules scattered from different fcc(110) surfaces. Journal of Chemical Physics, 2000, 113, 2456-2469.	3.0	4
92	Electron-correlation effects in appearance-potential spectra of Ni. Physical Review B, 2001, 63, .	3.2	4
93	Multiple valence electron detachment following Auger decay of inner-shell vacancies in gas-phase DNA. Chemical Science, 2021, 12, 13177-13186.	7.4	4
94	The NEXT Project: Towards Production and Investigation of Neutron-Rich Heavy Nuclides. Atoms, 2022, 10, 59.	1.6	4
95	Inelastic energy loss of fast N ₂ scattered from Pd(111). Radiation Effects and Defects in Solids, 1997, 142, 163-171.	1.2	3
96	Dissociation of fast N ₂ molecules at a Pd(110) surface. Surface Science, 1998, 402-404, 215-218.	1.9	3
97	Hollow atom dynamics on thin-film covered surfaces. Nuclear Instruments & Methods in Physics Research B, 1999, 157, 304-308.	1.4	3
98	Isomeric effects in ion-induced fragmentation of $\hat{1}\pm$ - and $\hat{1}^2$ -alanine. Journal of Physics: Conference Series, 2008, 101, 012006.	0.4	3
99	Ion induced fragmentation of biomolecular systems at low collision energies. Journal of Physics: Conference Series, 2009, 194, 012048.	0.4	3
100	Atomic hydrogen interactions with small polycyclic aromatic hydrocarbons cations. European Physical Journal D, 2020, 74, 1.	1.3	3
101	The electronic structure and deexcitation pathways of an isolated metalloporphyrin ion resolved by metal L-edge spectroscopy. Chemical Science, 2021, 12, 3966-3976.	7.4	3
102	Mn ₁₂ Acetate Complexes Studied as Single Molecules. Chemistry - A European Journal, 2022, 28, .	3.3	3
103	Experimental observation of reduced electronic stopping in photo-excited C60. Journal of Physics B: Atomic, Molecular and Optical Physics, 2005, 38, L55-L62.	1.5	2
104	Fragmentation of isolated and nanosolvated biomolecular systems. , 2008, , .		2
105	An intense electrospray ionization source for soft X-ray photoionization of gas phase protein ions. Journal of Physics: Conference Series, 2015, 635, 112083.	0.4	2
106	X-ray photoabsorption-induced processes within protonated rifamycin sodium salts in the gas phase. European Physical Journal D, 2021, 75, 1.	1.3	2
107	The influence of the methionine residue on the dissociation mechanisms of photoionized methionine-enkephalin probed by VUV action spectroscopy. European Physical Journal D, 2021, 75, 1.	1.3	2
108	Intramolecular hydrogen transfer in DNA induced by site-selective resonant core excitation. Physical Chemistry Chemical Physics, 2022, 24, 7815-7825.	2.8	2

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109	Molecule dissociation at low energies on Pt(110). Nuclear Instruments & Methods in Physics Research B, 2001, 182, 162-166.	1.4	1
110	Cross sections for energetic heavy-ion impact on protonated water clusters. Applied Physics B: Lasers and Optics, 2014, 114, 251-255.	2.2	1
111	Ionization and Photofragmentation of Isolated Metalloporphyrin Cations Investigated by VUV Action Spectroscopy**. Chemistry - A European Journal, 2021, 27, 12371-12379.	3.3	1
112	Ion-Induced Radiation Damage in Biomolecular Systems. Biological and Medical Physics Series, 2012, , 177-190.	0.4	1
113	CLUSTERS AND CLUSTERS OF CLUSTERS IN COLLISIONS. , 2006, , .		1
114	Action Spectroscopy of Gas-Phase Peptide Ions with Energetic Photons. Physical Chemistry in Action, 2013, , 209-226.	0.6	1
115	Stacked-ring ion guide for cooling and bunching rare isotopes. International Journal of Mass Spectrometry, 2022, 477, 116856.	1.5	1
116	Scattering of fast N ₂ from Pd(111): Orientational influences on the interaction dynamics. Radiation Effects and Defects in Solids, 1997, 141, 175-184.	1.2	0
117	Kinetic energy release of dissociating CO ₃ ⁺ ions produced in collisions of multiply charged ions with CO. Physica Scripta, 1997, T73, 267-269.	2.5	0
118	Collisions of slow multicharged ions with atoms, molecules, clusters and surfaces. AIP Conference Proceedings, 2000, , .	0.4	0
119	Interactions of multiply charged ions with trapped complex biomolecular ions. Journal of Physics: Conference Series, 2009, 194, 102006.	0.4	0
120	Fragmentation and ionization dynamics of polycyclic aromatic hydrocarbons. Journal of Physics: Conference Series, 2009, 194, 102003.	0.4	0
121	Collisions of Ar ¹⁷⁺ ions with gaseous and solid targets at a few tens of keV/q probed by X-ray spectroscopy. Journal of Physics: Conference Series, 2009, 194, 132005.	0.4	0
122	Influence of the environment on the fragmentation of amino acids provoked by low-energy ions. Journal of Physics: Conference Series, 2012, 388, 102052.	0.4	0
123	Interaction of nucleobase clusters with multiply charged ions: Insight into base pairing. Journal of Physics: Conference Series, 2012, 388, 102050.	0.4	0
124	New process observed in collisions between highly charged protonated protein and Xe ⁸⁺ Xe ⁵⁺ He ²⁺ ions. Journal of Physics: Conference Series, 2014, 488, 102004.	0.4	0
125	Multiple Ionization of Free Ubiquitin Molecular Ions in Extreme Ultraviolet Free-Electron Laser Pulses. Angewandte Chemie, 2016, 128, 10899-10903.	2.0	0
126	HCl-Induced Ionization and Fragmentation of Fullerenes and Organic Molecules. Physica Scripta, 2001, T92, 51-56.	2.5	0