

Oleg Kostko

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8171328/publications.pdf>

Version: 2024-02-01

79
papers

3,036
citations

147801

31
h-index

168389

53
g-index

82
all docs

82
docs citations

82
times ranked

2851
citing authors

#	ARTICLE	IF	CITATIONS
1	Symmetry and Electronic Structure of Noble-Metal Nanoparticles and the Role of Relativity. <i>Physical Review Letters</i> , 2004, 93, 093401.	7.8	241
2	Size-Dependent Structural Evolution and Chemical Reactivity of Gold Clusters. <i>ChemPhysChem</i> , 2007, 8, 157-161.	2.1	197
3	Melting of Sodium Clusters: Where Do the Magic Numbers Come from?. <i>Physical Review Letters</i> , 2005, 94, 035701.	7.8	188
4	Au ₃₄ ⁺ : A Chiral Gold Cluster?. <i>Angewandte Chemie - International Edition</i> , 2007, 46, 2944-2948.	13.8	139
5	Untangling the chemical evolution of Titan's atmosphere and surface—from homogeneous to heterogeneous chemistry. <i>Faraday Discussions</i> , 2010, 147, 429.	3.2	118
6	Electronic Structure and Spectroscopy of Nucleic Acid Bases: Ionization Energies, Ionization-Induced Structural Changes, and Photoelectron Spectra. <i>Journal of Physical Chemistry A</i> , 2010, 114, 12305-12317.	2.5	91
7	Structure Determination of Medium-Sized Sodium Clusters. <i>Physical Review Letters</i> , 2007, 98, 043401.	7.8	89
8	The effect of π -stacking, H-bonding, and electrostatic interactions on the ionization energies of nucleic acid bases: adenine—adenine, thymine—thymine and adenine—thymine dimers. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 2292.	2.8	88
9	Spectroscopic signatures of proton transfer dynamics in the water dimer cation. <i>Journal of Chemical Physics</i> , 2010, 132, 194311.	3.0	69
10	Ionization of dimethyluracil dimers leads to facile proton transfer in the absence of hydrogen bonds. <i>Nature Chemistry</i> , 2012, 4, 323-329.	13.6	69
11	Ionization of cytosine monomer and dimer studied by VUV photoionization and electronic structure calculations. <i>Physical Chemistry Chemical Physics</i> , 2010, 12, 2860.	2.8	65
12	Unexpected Chemistry from the Reaction of Naphthyl and Acetylene at Combustion-Like Temperatures. <i>Angewandte Chemie - International Edition</i> , 2015, 54, 5421-5424.	13.8	62
13	Thermal Decomposition Mechanism of 1-Ethyl-3-methylimidazolium Bromide Ionic Liquid. <i>Journal of Physical Chemistry A</i> , 2012, 116, 5867-5876.	2.5	57
14	Vacuum Ultraviolet Photoionization of Complex Chemical Systems. <i>Annual Review of Physical Chemistry</i> , 2016, 67, 19-40.	10.8	54
15	Experimental Observation of Guanine Tautomers with VUV Photoionization. <i>Journal of Physical Chemistry A</i> , 2009, 113, 4829-4832.	2.5	53
16	AN EXPERIMENTAL AND THEORETICAL STUDY ON THE IONIZATION ENERGIES OF POLYYNES (H-(C _n) _n -H; $n = 1-9$). <i>Astrophysical Journal</i> , 2010, 719, 1884-1889.	4.5	52
17	Heats of Vaporization of Room Temperature Ionic Liquids by Tunable Vacuum Ultraviolet Photoionization. <i>Journal of Physical Chemistry B</i> , 2010, 114, 1361-1367.	2.6	49
18	Thermal decomposition of CH ₃ CHO studied by matrix infrared spectroscopy and photoionization mass spectroscopy. <i>Journal of Chemical Physics</i> , 2012, 137, 164308.	3.0	49

#	ARTICLE	IF	CITATIONS
19	Hydrogenâ€Abstraction/Acetyleneâ€Addition Exposed. <i>Angewandte Chemie - International Edition</i> , 2016, 55, 14983-14987.	13.8	48
20	HACA's Heritage: A Freeâ€Radical Pathway to Phenanthrene in Circumstellar Envelopes of Asymptotic Giant Branch Stars. <i>Angewandte Chemie - International Edition</i> , 2017, 56, 4515-4519.	13.8	48
21	The thermal decomposition of the benzyl radical in a heated micro-reactor. I. Experimental findings. <i>Journal of Chemical Physics</i> , 2015, 142, 044307.	3.0	46
22	Guanidinium Group Remains Protonated in a Strongly Basic Arginine Solution. <i>ChemPhysChem</i> , 2017, 18, 1503-1506.	2.1	46
23	Vacuum-Ultraviolet (VUV) Photoionization of Small Methanol and MethanolâˆWater Clusters. <i>Journal of Physical Chemistry A</i> , 2008, 112, 9555-9562.	2.5	43
24	The products of the thermal decomposition of CH ₃ CHO. <i>Journal of Chemical Physics</i> , 2011, 135, 014306.	3.0	43
25	Toward the Oxidation of the Phenyl Radical and Prevention of PAH Formation in Combustion Systems. <i>Journal of Physical Chemistry A</i> , 2015, 119, 7145-7154.	2.5	41
26	Determination of Ionization Energies of Small Silicon Clusters with Vacuum Ultraviolet Radiation. <i>Journal of Physical Chemistry A</i> , 2010, 114, 3176-3181.	2.5	39
27	The effect of microhydration on ionization energies of thymine. <i>Faraday Discussions</i> , 2011, 150, 313.	3.2	38
28	Selective Formation of Indene through the Reaction of Benzyl Radicals with Acetylene. <i>ChemPhysChem</i> , 2015, 16, 2091-2093.	2.1	37
29	From atoms to aerosols: probing clusters and nanoparticles with synchrotron based mass spectrometry and X-ray spectroscopy. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 2713-2737.	2.8	34
30	On the formation of pyridine in the interstellar medium. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 32000-32008.	2.8	33
31	Photoelectron spectra of Nan- and Cun- with nâ€=â€20â€40: observation of surprising similarities. <i>European Physical Journal D</i> , 2005, 34, 133-137.	1.3	32
32	DETERMINATION OF IONIZATION ENERGIES OF C_n</i>N (<i>n</i>= 4-12): VACUUM ULTRAVIOLET PHOTOIONIZATION EXPERIMENTS AND THEORETICAL CALCULATIONS. <i>Astrophysical Journal</i> , 2010, 717, 674-682.	4.5	31
33	First-principles determination of the structure of NaN and NaNâˆ clusters with up to 80 atoms. <i>Journal of Chemical Physics</i> , 2011, 134, 164304.	3.0	31
34	AN EXPERIMENTAL AND THEORETICAL STUDY OF THE IONIZATION ENERGIES OF SiC₂H_x (<i>x</i>= 0, 1, 2) ISOMERS. <i>Astrophysical Journal</i> , 2012, 761, 178.	4.5	30
35	Soft X-ray spectroscopy of nanoparticles by velocity map imaging. <i>Journal of Chemical Physics</i> , 2017, 147, 013931.	3.0	30
36	Tunable Wavelength Soft Photoionization of Ionic Liquid Vapors. <i>Journal of Physical Chemistry A</i> , 2010, 114, 879-883.	2.5	29

#	ARTICLE	IF	CITATIONS
37	MEASUREMENTS OF ISOTOPE EFFECTS IN THE PHOTOIONIZATION OF N ₂ AND IMPLICATIONS FOR TITAN'S ATMOSPHERE. <i>Astrophysical Journal Letters</i> , 2011, 728, L32.	8.3	29
38	GAS PHASE SYNTHESIS OF (ISO)QUINOLINE AND ITS ROLE IN THE FORMATION OF NUCLEOBASES IN THE INTERSTELLAR MEDIUM. <i>Astrophysical Journal</i> , 2015, 803, 53.	4.5	29
39	The thermal decomposition of the benzyl radical in a heated micro-reactor. II. Pyrolysis of the tropyli radical. <i>Journal of Chemical Physics</i> , 2016, 145, 014305.	3.0	28
40	Probing the Heterogeneous Ozonolysis of Squalene Nanoparticles by Photoemission. <i>Journal of Physical Chemistry A</i> , 2016, 120, 8645-8656.	2.5	26
41	Mass-Analyzed Threshold Ionization (MATI) Spectroscopy of Atoms and Molecules Using VUV Synchrotron Radiation. <i>Journal of Physical Chemistry A</i> , 2009, 113, 14206-14211.	2.5	24
42	Ab initio dynamics and photoionization mass spectrometry reveal ion-molecule pathways from ionized acetylene clusters to benzene cation. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017, 114, E4125-E4133.	7.1	24
43	Soft Ionization of Thermally Evaporated Hypergolic Ionic Liquid Aerosols. <i>Journal of Physical Chemistry A</i> , 2011, 115, 4630-4635.	2.5	23
44	Vacuum Ultraviolet Photoionization Studies of PtCH ₂ and H ₂ PtCH ₃ : A Potential Energy Surface for the Pt+CH ₄ Reaction. <i>Angewandte Chemie - International Edition</i> , 2013, 52, 888-891.	13.8	23
45	Desorption Dynamics, Internal Energies, and Imaging of Organic Molecules from Surfaces with Laser Desorption and Vacuum Ultraviolet (VUV) Photoionization. <i>Chemistry - an Asian Journal</i> , 2011, 6, 3066-3076.	3.3	22
46	Vacuum-Ultraviolet Photoionization Measurement and ab Initio Calculation of the Ionization Energy of Gas-Phase SiO ₂ . <i>Journal of Physical Chemistry A</i> , 2009, 113, 1225-1230.	2.5	21
47	On the ionization energies of C ₄ H ₃ isomers. <i>Chemical Physics Letters</i> , 2010, 485, 281-285.	2.6	21
48	HACA's Heritage: A Free Radical Pathway to Phenanthrene in Circumstellar Envelopes of Asymptotic Giant Branch Stars. <i>Angewandte Chemie</i> , 2017, 129, 4586-4590.	2.0	20
49	Structural evolution of the sodium cluster anions $\text{Na}^{\subscript{20}}$. <i>Physical Review B</i> , 2009, 80, ...	3.2	19
50	Vacuum-Ultraviolet Photoionization and Mass Spectrometric Characterization of Lignin Monomers Coniferyl and Sinapyl Alcohols. <i>Journal of Physical Chemistry A</i> , 2011, 115, 3279-3290.	2.5	18
51	Fundamental understanding of chemical processes in extreme ultraviolet resist materials. <i>Journal of Chemical Physics</i> , 2018, 149, 154305.	3.0	15
52	Probing Methanol Cluster Growth by Vacuum Ultraviolet Ionization. <i>Journal of Physical Chemistry A</i> , 2015, 119, 4083-4092.	2.5	14
53	Local electronic structure of histidine in aqueous solution. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 8847-8853.	2.8	14
54	Proton transfer in acetaldehyde-water clusters mediated by a single water molecule. <i>Physical Chemistry Chemical Physics</i> , 2016, 18, 25569-25573.	2.8	13

#	ARTICLE	IF	CITATIONS
55	Low energy electron attenuation lengths in core-shell nanoparticles. <i>Physical Chemistry Chemical Physics</i> , 2017, 19, 13372-13378.	2.8	13
56	Velocity map imaging of inelastic and elastic low energy electron scattering in organic nanoparticles. <i>Journal of Chemical Physics</i> , 2019, 151, 184702.	3.0	13
57	Gas phase formation of cyclopentanaphthalene (benzindene) isomers via reactions of 5- and 6-indenyl radicals with vinylacetylene. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 22493-22500.	2.8	13
58	Transition from a Bloch-Wilson to a free-electron density of states in Zn clusters. <i>Journal of Chemical Physics</i> , 2005, 123, 221102.	3.0	12
59	Photoelectron spectroscopy of the structure and dynamics of free size selected sodium clusters. <i>Journal of Physics: Conference Series</i> , 2007, 88, 012034.	0.4	12
60	Atmospheric dayglow diagnostics involving the O ₂ (¹ Δ _{g) Atmospheric band emission: Global Oxygen and Temperature (GOAT) mapping. <i>Journal of Geophysical Research: Space Physics</i>, 2017, 122, 3640-3649.}	2.4	12
61	Using Nanoparticle X-ray Spectroscopy to Probe the Formation of Reactive Chemical Gradients in Diffusion-Limited Aerosols. <i>Journal of Physical Chemistry A</i> , 2019, 123, 6034-6044.	2.5	12
62	Isomerization and Fragmentation of Cyclohexanone in a Heated Micro-Reactor. <i>Journal of Physical Chemistry A</i> , 2015, 119, 12635-12647.	2.5	11
63	Probing Ionic Complexes of Ethylene and Acetylene with Vacuum-Ultraviolet Radiation. <i>Journal of Physical Chemistry A</i> , 2016, 120, 5053-5064.	2.5	11
64	Isotope effects and spectroscopic assignments in the non-dissociative photoionization spectrum of N ₂ . <i>Journal of Chemical Physics</i> , 2014, 140, 194303.	3.0	10
65	Probing Reactivity of Gold Atoms with Acetylene and Ethylene with VUV Photoionization Mass Spectrometry and Ab Initio Studies. <i>Journal of Physical Chemistry A</i> , 2019, 123, 2194-2202.	2.5	10
66	Gas-phase synthesis of corannulene – a molecular building block of fullerenes. <i>Physical Chemistry Chemical Physics</i> , 2021, 23, 5740-5749.	2.8	10
67	New Insights into Secondary Organic Aerosol Formation at the Air-Liquid Interface. <i>Journal of Physical Chemistry Letters</i> , 2021, 12, 324-329.	4.6	9
68	Determination of effective attenuation length of slow electrons in polymer films. <i>Journal of Applied Physics</i> , 2020, 127, .	2.5	8
69	Hydrogen-Abstraction/Acetylene-Addition Exposed. <i>Angewandte Chemie</i> , 2016, 128, 15207-15211.	2.0	7
70	Enabling liquid vapor analysis using synchrotron VUV single photon ionization mass spectrometry with a microfluidic interface. <i>Review of Scientific Instruments</i> , 2018, 89, 115105.	1.3	6
71	To Be or Not To Be a Molecular Ion: The Role of the Solvent in Photoionization of Arginine. <i>Journal of Physical Chemistry Letters</i> , 2019, 10, 1860-1865.	4.6	6
72	Probing Self-Assembly in Arginine-Oleic Acid Solutions with Terahertz Spectroscopy and X-ray Scattering. <i>Journal of Physical Chemistry Letters</i> , 2020, 11, 9507-9514.	4.6	5

#	ARTICLE	IF	CITATIONS
73	Exciton energy transfer reveals spectral signatures of excited states in clusters. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 14284-14292.	2.8	5
74	Experimental characterization of resist materials. , 2021, , .		5
75	VUV and XLIV reflectance of optically coated mirrors for selection of high harmonics. <i>Optics Express</i> , 2016, 24, 18209.	3.4	4
76	An investigation of aqueous ammonium nitrate aerosols with soft X-ray spectroscopy. <i>Molecular Physics</i> , 2022, 120, .	1.7	4
77	Thermal and Catalytic Decomposition of 2-Hydroxyethylhydrazine and 2-Hydroxyethylhydrazinium Nitrate Ionic Liquid. <i>Journal of Physical Chemistry A</i> , 2022, 126, 373-394.	2.5	4
78	Probing sulphur clusters in a microfluidic electrochemical cell with synchrotron-based photoionization mass spectrometry. <i>Physical Chemistry Chemical Physics</i> , 2020, 22, 14449-14453.	2.8	3
79	Studying Interfacial Dark Reactions of Glyoxal and Hydrogen Peroxide Using Vacuum Ultraviolet Single Photon Ionization Mass Spectrometry. <i>Atmosphere</i> , 2021, 12, 338.	2.3	1