

# Joshua J Melko

## List of Publications by Year in descending order

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38  
papers

649  
citations

567281

15  
h-index

610901

24  
g-index

38  
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38  
docs citations

38  
times ranked

541  
citing authors

#	ARTICLE	IF	CITATIONS
1	Activation of Methane by FeO <sup>+</sup> : Determining Reaction Pathways through Temperature-Dependent Kinetics and Statistical Modeling. <i>Journal of Physical Chemistry A</i> , 2014, 118, 2029-2039.	2.5	46
2	Evaluation of the exothermicity of the chemi-ionization reaction Sm + O → SmO <sup>+</sup> + e <sup>-</sup> . <i>Journal of Chemical Physics</i> , 2015, 142, 134307.	3.0	44
3	Temperature Dependence of the OH <sup>+</sup> + CH <sub>3</sub> I Reaction Kinetics. <i>Experimental and Simulation Studies and Atomic-Level Dynamics. Journal of Physical Chemistry A</i> , 2013, 117, 14019-14027.	2.5	40
4	Further Insight into the Reaction FeO <sup>+</sup> + H <sub>2</sub> → Fe <sup>+</sup> + H <sub>2</sub> O: Temperature Dependent Kinetics, Isotope Effects, and Statistical Modeling. <i>Journal of Physical Chemistry A</i> , 2014, 118, 6789-6797.	2.5	38
5	Al <sub>n</sub> Bi Clusters: Transitions Between Aromatic and Jellium Stability. <i>Journal of Physical Chemistry A</i> , 2008, 112, 13316-13325.	2.5	29
6	Spin-inversion and spin-selection in the reactions FeO <sup>+</sup> + H <sub>2</sub> and Fe <sup>+</sup> + N <sub>2</sub> O. <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19709-19717.	2.8	28
7	Iron cation catalyzed reduction of N <sub>2</sub> O by CO: gas-phase temperature dependent kinetics. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 11257.	2.8	26
8	Statistical modeling of the reactions Fe <sup>+</sup> + N <sub>2</sub> O → FeO <sup>+</sup> + N <sub>2</sub> and FeO <sup>+</sup> + CO → Fe <sup>+</sup> + CO <sub>2</sub> . <i>Physical Chemistry Chemical Physics</i> , 2015, 17, 19700-19708.	2.8	24
9	Combined Experimental and Theoretical Study of Al <sub>n</sub> X (n = 1-6; X = As, Sb) Clusters: Evidence of Aromaticity and the Jellium Model. <i>Journal of Physical Chemistry A</i> , 2010, 114, 2045-2052.	2.5	23
10	Photoelectron imaging of small aluminum clusters: quantifying s-p hybridization. <i>Physical Chemistry Chemical Physics</i> , 2013, 15, 3173.	2.8	23
11	Effect of Charge and Composition on the Structural Fluxionality and Stability of Nine Atom Tin <sup>+</sup> Bismuth Zintl Analogues. <i>Inorganic Chemistry</i> , 2008, 47, 10953-10958.	4.0	22
12	A novel technique for measurement of thermal rate constants and temperature dependences of dissociative recombination: CO <sub>2</sub> <sup>+</sup> , CF <sub>3</sub> <sup>+</sup> , N <sub>2</sub> O <sup>+</sup> , C <sub>7</sub> H <sub>8</sub> <sup>+</sup> , C <sub>7</sub> H <sub>7</sub> <sup>+</sup> , C <sub>6</sub> H <sub>6</sub> <sup>+</sup> , C <sub>6</sub> H <sub>5</sub> <sup>+</sup> , C <sub>5</sub> H <sub>6</sub> <sup>+</sup> , C <sub>4</sub> H <sub>4</sub> <sup>+</sup> , and C <sub>3</sub> H <sub>3</sub> <sup>+</sup> . <i>Journal of Chemical Physics</i> , 2013, 138, 154201.	3.0	22
13	S-P Coupling Induced Unusual Open-Shell Metal Clusters. <i>Journal of the American Chemical Society</i> , 2014, 136, 4821-4824.	13.7	22
14	Exploring the Reactions of Fe <sup>+</sup> and FeO <sup>+</sup> with NO and NO <sub>2</sub> . <i>Journal of Physical Chemistry A</i> , 2012, 116, 11500-11508.	2.5	20
15	The applicability of three-dimensional aromaticity in BiSnn <sup>+</sup> Zintl analogues. <i>Journal of Chemical Physics</i> , 2010, 133, 134302.	3.0	17
16	Temperature dependences for the reactions of O <sub>2</sub> <sup>+</sup> and O <sup>+</sup> with N and O atoms in a selected-ion flow tube instrument. <i>Journal of Chemical Physics</i> , 2013, 139, 144302.	3.0	17
17	Origins of Stability in Mixed Bismuth <sup>+</sup> Indium Clusters. <i>Journal of Physical Chemistry C</i> , 2010, 114, 15963-15972.	3.1	16
18	Effect of higher order solvation and temperature on SN <sub>2</sub> and E <sub>2</sub> reactivity. <i>International Journal of Mass Spectrometry</i> , 2015, 378, 54-58.	1.5	16

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19	Anion Photoelectron Spectroscopy and First-Principles Study of Pb <sub>x</sub> In <sub>y</sub> Clusters. Journal of Physical Chemistry C, 2010, 114, 20907-20916.	3.1	15
20	Electronic structure of $\text{Bi}_3$ clust. Chemical Physics Letters, 2009, 467, 223-229.		
21	Resilient aromaticity in lead-indium clusters. Chemical Physics Letters, 2010, 500, 196-201.	2.6	13
22	Kinetics of CO <sup>+</sup> and CO <sub>2</sub> <sup>+</sup> with N and O atoms. Journal of Chemical Physics, 2018, 148, 084305.	3.0	13
23	Electronic Structure Similarities in Pb <sub>x</sub> Sb <sub>y</sub> <sup>+</sup> and Sn <sub>x</sub> Bi <sub>y</sub> <sup>+</sup> Clusters. Journal of Physical Chemistry A, 2011, 115, 10276-10280.	2.5	12
24	Temperature and Isotope Dependent Kinetics of Nickel-Catalyzed Oxidation of Methane by Ozone. Journal of Physical Chemistry A, 2018, 122, 6655-6662.	2.5	12
25	Probing the Electronic Structures and Relative Stabilities of Monomagnesium Oxide Clusters MgO <sub>x</sub> (x = 1-4): A Combined Photoelectron Imaging and Theoretical Investigation. Journal of Physical Chemistry A, 2013, 117, 11896-11905.	2.5	11
26	Incorporating time-of-flight detection on a selected ion flow tube apparatus. International Journal of Mass Spectrometry, 2015, 377, 479-483.	1.5	11
27	Determining Rate Constants and Mechanisms for Sequential Reactions of Fe <sup>+</sup> with Ozone at 500 K. Journal of Physical Chemistry A, 2017, 121, 24-30.	2.5	10
28	Selected-ion flow tube temperature-dependent measurements for the reactions of O <sub>2</sub> <sup>+</sup> with N atoms and N <sub>2</sub> <sup>+</sup> with O atoms. Journal of Chemical Physics, 2015, 142, 154305.	3.0	9
29	Stability and electronic properties of isoelectronic heteroatomic analogs of. Chemical Physics Letters, 2011, 505, 92-95.	2.6	8
30	Electron Attachment to C <sub>7</sub> F <sub>14</sub> , Thermal Detachment from C <sub>7</sub> F <sub>14</sub> <sup>+</sup> , the Electron Affinity of C <sub>7</sub> F <sub>14</sub> , and Neutralization of C <sub>7</sub> F <sub>14</sub> <sup>+</sup> by Ar <sup>+</sup> . Journal of Physical Chemistry A, 2012, 116, 10293-10300.	2.5	8
31	Reactions of Fe <sup>+</sup> and FeO <sup>+</sup> with C <sub>2</sub> H <sub>2</sub> , C <sub>2</sub> H <sub>4</sub> , and C <sub>2</sub> H <sub>6</sub> : Temperature-Dependent Kinetics. Journal of Physical Chemistry A, 2013, 117, 10178-10185.	2.5	8
32	Electron delocalization in a non-cyclic all-metal III-V cluster. Chemical Physics Letters, 2009, 480, 189-192.	2.6	7
33	Structural Evolution of Trinobium Carbide Clusters: Evidence of Large C <sub>n</sub> Chains (n = 3-10) in Nb <sub>3</sub> C <sub>n</sub> <sup>+</sup> (n = 5-10) Clusters. Journal of Physical Chemistry A, 2010, 114, 1290-1297.	2.5	6
34	Coupling an electrospray source and a solids probe/chemical ionization source to a selected ion flow tube apparatus. Review of Scientific Instruments, 2015, 86, 084101.	1.3	6
35	Mechanisms of sequential ion-molecule reactions in protonated methanol using mass spectrometry, ab initio methods, and statistical modeling. Chemical Physics, 2019, 525, 110420.	1.9	5
36	Temperature dependences for the reactions of Ar <sup>+</sup> , O <sub>2</sub> <sup>+</sup> , and C <sub>7</sub> H <sub>7</sub> <sup>+</sup> with toluene and ethylbenzene. International Journal of Mass Spectrometry, 2013, 353, 60-66.	1.5	3

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37	Temperature-Dependent Kinetics of Charge Transfer, Hydrogen-Atom Transfer, and Hydrogen-Atom Expulsion in the Reaction of $\text{CO}^+$ with $\text{CH}_4$ and $\text{CD}_4$ . <i>Journal of Physical Chemistry A</i> , 2014, 118, 8141-8146.	2.5	3
38	Comment on "Role of $(\text{NO})_2$ Dimer in Reactions of $\text{Fe}^+$ with NO and $\text{NO}_2$ Studied by ICP-SIFT Mass Spectrometry". <i>Journal of Physical Chemistry A</i> , 2013, 117, 9108-9110.	2.5	2