

Curriculum Vitae

Dr. Hideya Koizumi

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Position Held

Instructor	Chemistry	Arkansas State University	2009
Assistant Prof. of Chemistry		Arkansas State University	2009
Associate Prof. of Chemistry		Arkansas State University	2015

Education

B.S.	in Chemistry, Oklahoma State University (Advisor, Prof. Lionel Ruff)	-1996
B.S.	in Mathematics, Oklahoma State University	-1997
Ph.D.	in Chemistry, University of Utah (Prof. Peter B. Armentrout)	-2004
Post Doctoral Study at University of North Carolina at Chapel Hill Camille and Henry Dreyfus Postdoctoral Fellowship (Prof. Tomas Baer)		-2006
Post Doctoral Study at Oak Ridge National Laboratory (Dr. Peter T. A. Reilly)		-2008

Award

Recipient of Camille and Henry Dreyfus Postdoctoral Fellowship 2004-2006
Top 100 R & D Awards *with Dr. Reilly* July 2009

Peer Reviewed Publications

[1]-[20] omitted

[21] An Investigation of aqueous Sr, Rb, and Crown Ether Mixture Solutions by ESI-QITMS by Post Column Addition

Sheng Song, Rohana Liyanage, Jackson Lay, Richard Warby, **Koizumi H**†, *Analytical Letters* Volume. 44, Issue: 12, Pages 2170-2181

[22] A hybrid approach to calculating Coulombic interactions: An effective and efficient method for optimization of simulations of many ions in quadrupole ion storage device with SIMION

Saito K., Reilly P. T. A., Koizumi E., **Koizumi H.** †, *International Journal of Mass Spectrometry* Volume: 315 Issue: 1, Pages: 74-80

[23] Application of Parallel Hybrid Algorithm in Massively Parallel GPGPU—The Improved Effective and Efficient Method for Calculating Coulombic Interactions in Simulations of Many Ions with SIMION

Saito K., Koizumi E., **Koizumi H.** †, *Journal of The American Society for Mass Spectrometry* Volume: 23 Issue: 9 Pages: 1609-1615

[24] Characterization of Quadrupole Mass Filters Operated with Frequency-Asymmetric and Amplitude-Asymmetric Waveforms

Brabeck G. F., **Koizumi H.**, Koizumi E., Reilly P. T.A.

International Journal of Mass Spectrometry, Volume 404, 20 June 2016, Pages 8-1

[25] The Role of Hydroxyl Groups in Interchain Interactions in Cellulose I_α and I_β

Feng Q., Noubissi R., Biswas K. , **Koizumi H.** †

****cover article**

International Journal of Quantum Chemistry, Volume 117, 10 May 2017, Pages e25357

[26] Vibrational Band Assignment of 2-Ethyl-1-Hexanol

Clasp T. N., Reeve S. W., **Koizumi H.** †

Journal of Theoretical and Computational Chemistry, Volume 16. No. 03 May 2017, Page 1750023

****featured article of 2017**

[27] Coupled cluster study of the partial charge of hydrogen in H_nX molecules in s and p block: Relationship with electronegativity

Koizumi H. †

Chemical Physics Letters, Volume 755. No. 03 July 2020, Page 137763

† **corresponding author**

Patents Awarded

[1] omitted

[2] US Patent

US 9239279 B1 SEQUENTIAL DIFFERENTIAL MOBILITY ANALYZER AND METHOD OF USING SAME 01-19-2016

[3] US Patent

US 9638666 B1 SEQUENTIAL DIFFERENTIAL MOBILITY ANALYZER AND METHOD OF USING SAME 05-02-2017

Provisionally patent application to USPTO (through ASU Research and Development Institute)

[4] Application number 655881

“PARALLEL HYBRID ALGORITHM IN MASSIVELY PARALLEL GPGPU AND METHOD FOR CALCULATING COULOMBIC INTERACTIONS IN SIMULATIONS OF MANY IONS”

Grant activity

[1]-[4] omitted

[5] NISC XSEDE Supercomputing Allocation Grant. 2015-16(My role: Single-PI)

“Hydrogen bonding in Interpolymer Interactions :Case study of Cellulose and Fibroin”

[6] NISC XSEDE Supercomputing Allocation Grant. 2021-22(My role: Single-PI)

“Computational Analysis of Long-Range Interactions in Tertiary Structure: Case Studies – Trp-cage Miniprotein (1L2Y)”

Teaching

General Chemistry

Physical Chemistry

Analytical Chemistry

Professional affiliations

American Society for Mass Spectrometry
American Chemical Society