

Publication List

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1. "Simulation of Electric Potentials and Ion Motion in Planar Electrode Structures for Lossless Ion Manipulations (SLIM)", S. V. B. Garimella, Y. M. Ibrahim, I. K. Webb, A. V. Tolmachev, X. Zhang, S. A. Prost, G. A. Anderson, and R. D. Smith, **Journal of American Society for Mass Spectrometry**, 25, 1890-1896 (2014).
2. "Characterization of Ion Dynamics in Structures for Lossless Ion Manipulations", A. V. Tolmachev, I. K. Webb, Y. M. Ibrahim, S. V. B. Garimella, X. Zhang, G. A. Anderson, and R. D. Smith, **Analytical Chemistry**, 86, 9162-9168 (2014).
3. "Experimental Evaluation and Optimization of Structures for Lossless Ion Manipulations for Ion Mobility Spectrometry with Time-of-Flight Mass Spectrometry", I. K. Webb, S. V. B. Garimella, A. V. Tolmachev, T.-C. Chen, X. Zhang, R. V. Norheim, S. A. Prost, B. LaMarche, G. A. Anderson, Y. M. Ibrahim, and R. D. Smith, **Analytical Chemistry**, 86, 9169-9176 (2014).
4. "Mobility-Resolved Ion Selection in Uniform Drift Field Ion Mobility Spectrometry/Mass Spectrometry: Dynamic Switching in Structures for Lossless Ion Manipulations", I. K. Webb, S. V. B. Garimella, A. V. Tolmachev, T.-C. Chen, X. Zhang, J. T. Cox, R. V. Norheim, S. A. Prost, B. LaMarche, G. A. Anderson, Y. M. Ibrahim, and R. D. Smith, **Analytical Chemistry**, 86, 9632-9637 (2014).
5. "Rectangular Ion Funnel: A New Ion Funnel Interface for Structures for Lossless Ion Manipulations", T.-C. Chen, I. K. Webb, S. A. Prost, M. B. Harrer, R. V. Norheim, K. Tang, Y. M. Ibrahim, and R. D. Smith, **Analytical Chemistry**, 87, 716-722 (2014).

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6. "Ion Trapping, Storage, and Ejection in Structures for Lossless Ion Manipulations", X. Zhang, S. V. B. Garimella, S. A. Prost, I. K. Webb, T.-C. Chen, K. Tang, A. V. Tolmachev, R. V. Norheim, E. S. Baker, G. A. Anderson, Y. M. Ibrahim, and R. D. Smith, **Analytical Chemistry**, 87, 6010-6016 (2015).
7. "Ion Manipulations in Structures for Lossless Ion Manipulations (SLIM): Computational Evaluation of a 90° Turn and a Switch", S. V. B. Garimella, Y. M. Ibrahim, I. K. Webb, A. B. Ipsen, T.-C. Chen, A. V. Tolmachev, E. S. Baker, G. A. Anderson, and R. D. Smith, **Analyst**, 140, 6845-6852 (2015).
8. "Characterization of Traveling Wave Ion Mobility Separations in Structures for Lossless Ion Manipulations.", A. M. Hamid, Y. M. Ibrahim, S. V. B. Garimella, I. K. Webb, L. Deng, T.-C. Chen, G. A. Anderson, S. A. Prost, R. V. Norheim, A. V. Tolmachev, and R. D. Smith, **Analytical Chemistry**, 87, 11,301-11,308 (2015).

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9. "Mobility-Selected Ion Trapping and Enrichment Using Structures for Lossless Ion Manipulations", T.-C. Chen, Y. M. Ibrahim, I. K. Webb, S. V. B. Garimella, X. Zhang, A. M. Hamid, L. Deng, W. E. Karnesky, S. A. Prost, J. A. Sandoval, R. V. Norheim, G. A. Anderson, A. V. Tolmachev, E. S. Baker, and R. D. Smith, **Analytical Chemistry**, 88, 1728-1733 (2016).
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11. "A Structures for Lossless Ion Manipulations (SLIM) Module for Collision Induced Dissociation", I. K. Webb, S. V. B. Garimella, R. V. Norheim, E. S. Baker, Y. M. Ibrahim, and R. D. Smith, **Journal of American Society for Mass Spectrometry**, 27, 1285-1288 (2016).
12. "Achieving High Resolution Ion Mobility Separations Using Traveling Waves in Compact Multiturn Structures for Lossless Ion Manipulations", A. M. Hamid, S. V. B. Garimella, Y. M. Ibrahim, L. Deng, X. Zheng, I. K. Webb, G. A. Anderson, S. A. Prost, R. V. Norheim, A. V. Tolmachev, E. S. Baker, and R. D. Smith, **Analytical Chemistry**, 88, 8949-8956 (2016).

13. "Ultra-High Resolution Ion Mobility Separations Utilizing Traveling Waves in a 13 m Serpentine Path Length Structures for Lossless Ion Manipulations Module", L. Deng, Y. M. Ibrahim, A. M. Hamid, S. V. B. Garimella, I. K. Webb, X. Zheng, S. A. Prost, J. A. Sandoval, R. V. Norheim, G. A. Anderson, A. V. Tolmachev, E. S. Baker, and R. D. Smith, **Analytical Chemistry**, 88, 8957-8964 (2016).
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16. "Ion Mobility Separations of Isomers Based Upon Long Path Length Structures for Lossless Ion Manipulations Combined with Mass Spectrometry", L. Deng, Y. M. Ibrahim, E. S. Baker, N. A. Aly, A. M. Hamid, X. Zhang, X. Zheng, S. V. B. Garimella, I. K. Webb, S. A. Prost, J. A. Sandoval, R. V. Norheim, G. A. Anderson, A. V. Tolmachev, and R. D. Smith, **ChemistrySelect**, 1, 2396-2399 (2016).

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18. "Serpentine Ultralong Path with Extended Routing (SUPER) High Resolution Traveling Wave Ion Mobility-MS Using Structures for Lossless Ion Manipulations", L. Deng, I. K. Webb, S. V. B. Garimella, A. M. Hamid, X. Zheng, R. V. Norheim, S. A. Prost, G. A. Anderson, J. A. Sandoval, E. S. Baker, Y. M. Ibrahim, and R. D. Smith, **Analytical Chemistry**, 89, 4628-4634 (2017).
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