

# Stanford

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## Xiaowei Song

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### Bio

#### STANFORD ADVISORS

- Richard Zare, Postdoctoral Faculty Sponsor

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### Publications

#### PUBLICATIONS

- **One-step Formation of Urea from Carbon Dioxide and Nitrogen Using Water Microdroplets.** *Journal of the American Chemical Society*  
Song, X., Basheer, C., Xia, Y., Li, J., Abdulazeez, I., Al-Saadi, A. A., Mofidfar, M., Suliman, M. A., Zare, R. N.  
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- **Making ammonia from nitrogen and water microdroplets.** *Proceedings of the National Academy of Sciences of the United States of America*  
Song, X., Basheer, C., Zare, R. N.  
2023; 120 (16): e2301206120
- **Silicone Wristband Spray Ionization Mass Spectrometry for Combined Exposome and Metabolome Profiling** *ISRAEL JOURNAL OF CHEMISTRY*  
Mofidfar, M., Song, X., Kelly, J. T., Rubenstein, M. H., Zare, R. N.  
2023
- **Immuno-Desorption Electrospray Ionization Mass Spectrometry Imaging Identifies Functional Macromolecules by Using Microdroplet-Cleavable Mass Tags.** *Angewandte Chemie (International ed. in English)*  
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2023
- **Reply to Brzeski and Jordan: Potential pyridine tautomers that can form stable dipole-bound anions.** *Proceedings of the National Academy of Sciences of the United States of America*  
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- **Spraying Water Microdroplets Containing 1,2,3-Triazole Converts Carbon Dioxide into Formic Acid.** *Journal of the American Chemical Society*  
Song, X., Meng, Y., Zare, R. N.  
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- **Laser Ablation Electrospray Ionization Achieves 5 μm Resolution Using a Microlensed Fiber.** *Analytical chemistry*  
Meng, Y., Song, X., Zare, R. N.  
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- **Capture of Hydroxyl Radicals by Hydronium Cations in Water Microdroplets.** *Angewandte Chemie (International ed. in English)*  
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- **Sprayed water microdroplets containing dissolved pyridine spontaneously generate pyridyl anions.** *Proceedings of the National Academy of Sciences of the United States of America*

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Zhao, L., Song, X., Gong, C., Zhang, D., Wang, R., Zare, R. N., Zhang, X.

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- **Hydrogen-Deuterium Exchange Desorption Electrospray Ionization Mass Spectrometry Visualizes an Acidic Tumor Microenvironment.** *Analytical chemistry*  
Song, X., Zang, Q., Zare, R. N.  
2021
- **Distinguishing between Isobaric Ions Using Microdroplet Hydrogen–Deuterium Exchange Mass Spectrometry** *Metabolites*  
Song, X., Li, J., Mofidfar, M., Zare, R. N.  
2021
- **In situ DESI-MSI lipidomic profiles of mucosal margin of oral squamous cell carcinoma.** *EBioMedicine*  
Yang, X., Song, X., Zhang, X., Shankar, V., Wang, S., Yang, Y., Chen, S., Zhang, L., Ni, Y., Zare, R. N., Hu, Q.  
2021; 70: 103529
- **Big cohort metabolomic profiling of serum for oral squamous cell carcinoma screening and diagnosis** *Natural Sciences*  
Yang, X., Song, X., Yang, X., Han, W., Fu, Y., Wang, S., Zhong, X., Lu, Y., Sun, G., Wang, Z., Ni, Y., Zare, R. N., Hu, et al  
2021; 1 (1)
- **Introducing Nafion for In Situ Desalting and Biofluid Profiling in Spray Mass Spectrometry.** *Frontiers in chemistry*  
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- **Coulometry-assisted quantitation in spray ionization mass spectrometry.** *Journal of mass spectrometry : JMS*  
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- **Oral squamous cell carcinoma diagnosed from saliva metabolic profiling.** *Proceedings of the National Academy of Sciences of the United States of America*  
Song, X., Yang, X., Narayanan, R., Shankar, V., Ethiraj, S., Wang, X., Duan, N., Ni, Y., Hu, Q., Zare, R. N.  
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- **Conductive Polymer Spray Ionization Mass Spectrometry for Biofluid Analysis** *ANALYTICAL CHEMISTRY*  
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