

## Joseph E. Lesniewski

PATENT AGENT

Patents and  
Innovations  
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### FOCUS AREAS

Intellectual Property  
Life Sciences  
Patents and Innovations

### EXPERIENCE

Dr. Joseph E. Lesniewski (Joe) is a patent agent in the Washington, D.C., office of Wilson Sonsini Goodrich & Rosati, where he is a member of the patents and innovations practice. He has extensive interdisciplinary technical expertise that spans across the fields of physical chemistry, organic chemistry, inorganic chemistry, analytical chemistry, computer science, and mechanical and electrical engineering.

Joe earned his Ph.D. in chemistry from Georgetown University, where his doctoral research focused on designing new ion sources and chemical instrumentation for efficient detection and quantitation of nonmetal elements by elemental mass spectrometry. His research was applied towards pharmaceutical development and trace analysis of contaminants in complex sample matrices.

Joe has also conducted research at the National Institute of Standards and Technology (NIST), where he focused on development of an automation software package for refinement of magnetic and nonmagnetic crystal structures from neutron and x-ray diffraction patterns using high-performance computing clusters.

Prior to joining the firm, Joe was an intellectual property and commercialization intern at Georgetown University's Office of Technology Commercialization, where he gained experience marketing technologies to potential licensees and working with patent applications from a variety of fields including small molecules, medical devices, energy technologies, and computer science technologies.

### CREDENTIALS

#### Education

- Ph.D., Chemistry, Georgetown University, 2021
- M.S., Chemistry, Georgetown University, 2018
- B.S., Chemistry, Mount St. Mary's University, 2015  
*Minor in Computer Science*

#### Admissions

- U.S. Patent and Trademark Office

### INSIGHTS

#### Select Publications

- Co-author with K. Zheng, M. Dolan Jr., W. Li, T. Metallo, and K. Jorabchi, "Elemental fluorine detection by dielectric barrier discharge coupled to nano-ESI mass spectrometry for nontargeted analysis of fluorinated compounds," 92(14) *Anal. Chem.* 10129-10137, 2020.
- Co-author with W. McMahon, R. Dalvi, Z. Hall, and K. Jorabchi, "Pulsed Nano-ESI: Application in Ion Mobility-MS and Insights into Spray Dynamics," 31(3) *J. Am. Soc. Mass Spectrom.* 488-497,

2020.

- Co-author, K. Zheng, P. Lecchi, D. Dain, and K. Jorabchi, "High-sensitivity elemental mass spectrometry of fluorine by ionization in plasma afterglow," 91(6) *Anal. Chem.* 3773-3777, 2019.
- Co-author, W. McMahon, and K. Jorabchi, "Mechanistic insights into chloride ion detection from the atmospheric-pressure afterglow of an argon inductively coupled plasma," 33(11) *J. Anal. Atom. Spectrom.* 1981-1992, 2018.
- Co-author, W. McMahon, K. Zheng, H. Wang, H. Badiei, and K. Jorabchi, "Atmospheric pressure plasma assisted reaction chemical ionization for analysis of chlorinated compounds separated by liquid chromatography," 32(9) *J. Anal. Atom. Spectrom.* 1757-1765, 2017.
- Co-author, S. Disseler, D. Quintana, P. Kienzle, and W. Ratcliff, "Bayesian method for the analysis of diffraction patterns using BLAND," 49(6) *J. Appl. Cryst.* 2201-2209, 2016.

### Select Speaking Engagements

- Speaker, "Elemental mass spectrometry of fluorine: challenges and innovations in ionization and detection," SciX 2019, Palm Springs, California, October 2019