

2018 Anna Louise Hoffman Award for Outstanding Achievement in Graduate Research

**Rachael Gabrielle Farber
Loyola University Chicago**



Rachael Farber is described as a fantastic all round scientist, student, teacher and mentor. Rachael's goal is to become a professor at a Ph.D. granting university. Her major professor, Dr. Daniel Killelea, writes that Rachael truly has the potential for an academic career because she clearly demonstrates the intellectual capability, scientific curiosity, and dedication to excel as a researcher and professor. In November 2017, Rachael won the Morton M. Traum Surface Science Student Award as well as the Nellie Yeoh Whetten Award, a top-level AVS-wide graduate student award at the 64th AVS International Symposium in Tampa, FL. Rachael also received the Arthur J. Schmitt Foundation Dissertation fellowship for 2017-18 from Loyola University Chicago. Rachael is thoroughly engaged with the surface science/physical chemistry community and is developing her leadership abilities. Her peers elected her co-chair of the 2017 Dynamics at Surfaces Gordon Research Seminar (GRS). Under Dr. Killelea, Rachael's first project involved imaging silver oxides prepared by filament split O_2 , which can be a delicate process. Rachael then moved on to discover double stranded water on stepped platinum surfaces as part of an international collaboration with Dr. Ludo Juurlink's group in The Netherlands. Rachael's imaging work was crucial in explaining the Dutch surface science results and was published in *Physical Review Letters* and featured on the front cover of the journal. Rachael then studied oxygen on and under catalytically relevant metal surface and has published many nice papers on Rh, Pt and Ag. Rachael is first author on two publications and co-author on five additional published manuscripts. This is truly exceptional for any graduate student in her 5th year of study. Rachael has recently accepted a postdoctoral position at The University of Chicago. She received the Kadanoff-Rice Postdoctoral Fellowship, a competitive and prestigious fellowship, to support her work there.