Jacob Kirsh
Ph.D. Student in Chemistry, admitted Autumn 2017

Publications

PUBLICATIONS

• Critical Evaluation of Polarizable and Nonpolarizable Force Fields for Proteins Using Experimentally Derived Nitrile Electric Fields. *Journal of the American Chemical Society*
  Kirsh, J. M., Weaver, J. B., Boxer, S. G., Kozuch, J.
  2024

• Structural Characterization of Fluorescent Proteins Using Tunable Femtosecond Stimulated Raman Spectroscopy. *International journal of molecular sciences*
  2023; 24 (15)

• Protein protic and aprotic interactions systematically mapped via IR spectroscopy and polarizable molecular dynamics
  Kirsh, J. M., Kozuch, J., Weaver, J. B., Boxer, S. G.
  CELL PRESS. 2023: 309A

• Protein protic and aprotic interactions systematically mapped via IR spectroscopy and polarizable molecular dynamics. *Biophysical journal*
  Kirsh, J. M., Kozuch, J., Weaver, J. B., Boxer, S. G.
  2023; 122 (3S1): 309a

• Carbon-deuterium bonds as reporters of electric fields in solvent and protein environments. *Biophysical journal*
  Fried, S. D., Kirsh, J. M., Zheng, C., Mao, Y., Markland, T. E., Boxer, S. G.
  2023; 122 (3S1): 481a

• Carbon-deuterium bonds as reporters of electric fields in solvent and protein environments
  Fried, S. E., Kirsh, J. M., Zheng, C., Mao, Y., Markland, T. E., Boxer, S. G.
  CELL PRESS. 2023: 481A

• Nitrile Infrared Intensities Characterize Electric Fields and Hydrogen Bonding in Protic, Aprotic, and Protein Environments. *Journal of the American Chemical Society*
  Weaver, J. B., Kozuch, J., Kirsh, J. M., Boxer, S. G.
  2022

• Nitrile IR intensities directly measure electric fields in protic and non-protic environments
  Weaver, J. B., Kozuch, J. A., Kirsh, J. M., Boxer, S. G.
  CELL PRESS. 2022: 414A