

## Steven Fried

Ph.D. Student in Chemistry, admitted Autumn 2020

### Publications

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#### PUBLICATIONS

- **Detection of covalent drug binding in live cells using a quantum cascade laser and nitrile-labeled amino acids**  
Fried, S. D. E., Mukherjee, S., Bagheri, N., Hong, N. Y., Boxer, S. G.  
CELL PRESS.2025
- **Detection of covalent drug binding in live cells using a quantum cascade laser and nitrile-labeled amino acids**  
Fried, S. D. E., Mukherjee, S., Bagheri, N., Hong, N. Y., Boxer, S. G.  
CELL PRESS.2025
- **Detection of covalent drug binding in live cells using a quantum cascade laser and nitrile-labeled amino acids**  
Fried, S. D. E., Mukherjee, S., Bagheri, N., Hong, N. Y., Boxer, S. G.  
CELL PRESS.2025
- **Cartography of electric fields in enzyme catalysis**  
Mukherjee, S., Fried, S. D. E., Mao, Y., Boxer, S. G.  
CELL PRESS.2025: 372A
- **Environment- and Conformation-Induced Frequency Shifts of C-D Vibrational Stark Probes in NAD(P)H Cofactors.** *The journal of physical chemistry letters*  
Fried, S. D., Mukherjee, S., Mao, Y., Boxer, S. G.  
2024: 10826-10834
- **Hydration and membrane lipids influence rhodopsin activation**  
Hewage, K. S. K., Chen, S. J. X., Fried, S. D. E., Luu, T. N., Struts, A. V., Perera, S. C., Brown, M. F.  
CELL PRESS.2024: 515A
- **Osmotic stress studies of G-protein-coupled receptor rhodopsin activation.** *Biophysical chemistry*  
Struts, A. V., Barmasov, A. V., Fried, S. D., Hewage, K. S., Perera, S. M., Brown, M. F.  
2023; 304: 107112
- **Carbon-deuterium bonds as reporters of electric fields in solvent and protein environments**  
Fried, S. D. E., Kirsh, J. M., Zheng, C., Mao, Y., Markland, T. E., Boxer, S. G.  
CELL PRESS.2023: 481A
- **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
- **Solvent Organization and Electrostatics Tuned by Solute Electronic Structure: Amide versus Non-Amide Carbonyls.** *The journal of physical chemistry. B*  
Fried, S. D., Zheng, C., Mao, Y., Markland, T. E., Boxer, S. G.  
2022
- **Tuning solvent electrostatic environment of amide carbonyls as prototypical peptide backbones**  
Fried, S. D. E., Zheng, C., Mao, Y., Markland, T. E., Boxer, S. G.  
CELL PRESS.2022: 186A

- **Activation of G-protein-coupled receptors by hydration driven sponge mechanism**

Fried, S. D. E., Hewage, K. S. K., Eitel, A. R., Struts, A. V., Weerasinghe, N., Perera, S. C., Brown, M. F.

CELL PRESS.2022: 458A