

Stanford



Quynh Le Nguyen

Associate Scientist, SLAC National Accelerator Laboratory

Bio

CURRENT ROLE AT STANFORD

Associate Scientist, Science Research Division, Linac Coherent Light Source

HONORS AND AWARDS

- Q-FARM Bloch Fellowship in Quantum Science & Engineering, Stanford-SLAC Quantum Initiative (2022)
- Poster Contest Winner, Colorado Photonics Industry Association (2019)
- Travel Award for Excellence in Graduate Research, American Physical Society (2019)
- National Science Foundation Graduate Research Fellowship, National Science Foundation (2016 - 2019)
- Annual Meeting Best Poster Award, American Chemical Society Younger Chemists Committee (2014)
- Outstanding Poster Award in Physical Chemistry, American Chemical Society National Meeting (2014)
- Phi Beta Kappa, PBK Honor Society (2014)
- Office of Provost Scholarship, Temple University (2013)
- Undergraduate Research Fellowship, National Institutes of Health (2012 - 2014)

EDUCATION AND CERTIFICATIONS

- PhD, JILA - University of Colorado Boulder, Physics (2020)
- BSc (with Distinction), Temple University, Chemistry (2014)

LINKS

- Google Scholar: <https://scholar.google.com/citations?user=IMfNKL8AAAAJ&hl=en&inst=5746887945952177237&oi=ao>

Publications

PUBLICATIONS

- **Observation of time-reversal symmetry breaking in the band structure of altermagnetic RuO₂.** *Science advances*
Fedchenko, O., Minar, J., Akashdeep, A., D'Souza, S. W., Vasilyev, D., Tkach, O., Odenbreit, L., Nguyen, Q., Kutnyakhov, D., Wind, N., Wenthaus, L., Scholz, M., Rossnagel, et al
2024; 10 (5): eadj4883
- **Quenched lattice fluctuations in optically driven SrTiO₃** *NATURE MATERIALS*
Fechner, M., Foerst, M., Orenstein, G., Krapivin, V., Disa, A. S., Buzzi, M., von Hoegen, A., de la Pena, G., Nguyen, Q. L., Mankowsky, R., Sander, M., Lemke, H., Deng, et al
2024

- **Ultrafast X-Ray Scattering Reveals Composite Amplitude Collective Mode in the Weyl Charge Density Wave Material (TaSe₄)₂I.** *Physical review letters*
Nguyen, Q. L., Duncan, R. A., Orenstein, G., Huang, Y., Krapivin, V., de la Peña, G., Ornelas-Skarin, C., Reis, D. A., Abbamonte, P., Bettler, S., Chollet, M., Hoffmann, M. C., Hurley, et al
2023; 131 (7): 076901
- **Circular dichroism in hard X-ray photoelectron diffraction observed by time-of-flight momentum microscopy.** *Ultramicroscopy*
Tkach, O., Vo, T., Fedchenko, O., Medjanik, K., Lytvynenko, Y., Babenkov, S., Vasilyev, D., Nguyen, Q. L., Peixoto, T. R., Gloskowskii, A., Schlueter, C., Chernov, S., Hoesch, et al
2023; 250: 113750
- **Observation of a massive phason in a charge-density-wave insulator.** *Nature materials*
Kim, S., Lv, Y., Sun, X., Zhao, C., Bielinski, N., Murzabekova, A., Qu, K., Duncan, R. A., Nguyen, Q. L., Trigo, M., Shoemaker, D. P., Bradlyn, B., Mahmood, et al
2023
- **Direct observation of enhanced electron-phonon coupling in copper nanoparticles in the warm-dense matter regime** *Direct observation of enhanced electron-phonon coupling in copper nanoparticles in the warm-dense matter regime*
Nguyen, Q. L.
2023; 8 (131): 085101
- **Necklace-structured high-harmonic generation for low-divergence, soft x-ray harmonic combs with tunable line spacing.** *Science advances*
Rego, L., Brooks, N. J., Nguyen, Q. L., Roman, J. S., Binnie, I., Plaja, L., Kapteyn, H. C., Murnane, M. M., Hernandez-Garcia, C.
2022; 8 (5): eabj7380
- **Bright, single helicity, high harmonics driven by mid-infrared bicircular laser fields** *OPTICS EXPRESS*
Dorney, K. M., Fan, T., Nguyen, Q. D., Ellis, J. L., Hickstein, D. D., Brooks, N., Zusin, D., Gentry, C., Hernandez-Garcia, C., Kapteyn, H. C., Murnane, M. M.
2021; 29 (23): 38119-38128
- **Diol isomer revealed as a source of methyl ketene from propionic acid unimolecular decomposition** *INTERNATIONAL JOURNAL OF CHEMICAL KINETICS*
Rogers, C. O., Lockwood, K. S., Nguyen, Q. D., Labbe, N. J.
2021
- **Detection of the keto-enol tautomerization in acetaldehyde, acetone, cyclohexanone, and methyl vinyl ketone with a novel VUV light source** *PROCEEDINGS OF THE COMBUSTION INSTITUTE*
Couch, D. E., Nguyen, Q. D., Liu, A., Hickstein, D. D., Kapteyn, H. C., Murnane, M. M., Labbe, N. J.
2021; 38 (1): 1737-1744
- **Highly-excited state properties of cumulenone chlorides in the vacuum-ultraviolet** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*
Nguyen, Q. D., Peters, W. K., Fortenberry, R. C.
2020; 22 (21): 11838-11849
- **Generation of extreme-ultraviolet beams with time-varying orbital angular momentum** *SCIENCE*
Rego, L., Dorney, K. M., Brooks, N. J., Nguyen, Q. L., Liao, C., San Roman, J., Couch, D. E., Liu, A., Pisanty, E., Lewenstein, M., Plaja, L., Kapteyn, H. C., Murnane, et al
2019; 364 (6447): 1253-+
- **Controlling the polarization and vortex charge of attosecond high-harmonic beams via simultaneous spin-orbit momentum conservation** *NATURE PHOTONICS*
Dorney, K. M., Rego, L., Brooks, N. J., San Roman, J., Liao, C., Ellis, J. L., Zusin, D., Gentry, C., Nguyen, Q. L., Shaw, J. M., Picon, A., Plaja, L., Kapteyn, et al
2019; 13 (2): 123-+
- **Strong field ionization with orbital angular momentum light beams measured with three-dimensional velocity imaging technique**
Quynh Nguyen, Dorney, K., Peters, W., Couch, D., Wooldridge, L., Li, W., Kapteyn, H., Murnane, M.
AMER CHEMICAL SOC.2018
- **High harmonics with spatially varying ellipticity** *OPTICA*
Ellis, J. L., Dorney, K. M., Hickstein, D. D., Brooks, N. J., Gentry, C., Hernandez-Garcia, C., Zusin, D., Shaw, J. M., Nguyen, Q. L., Mancuso, C. A., Jansen, G., Witte, S., Kapteyn, et al
2018; 5 (4): 479-485

- **Ultrafast 25-fs relaxation in highly excited states of methyl azide mediated by strong nonadiabatic coupling** *PROCEEDINGS OF THE NATIONAL ACADEMY OF SCIENCES OF THE UNITED STATES OF AMERICA*
Peters, W. K., Couch, D. E., Mignolet, B., Shi, X., Nguyen, Q. L., Fortenberry, R. C., Schlegel, H., Remacle, F., Kapteyn, H. C., Murnane, M. M., Li, W.
2017; 114 (52): E11072-E11081
- **A new electron-ion coincidence 3D momentum-imaging method and its application in probing strong field dynamics of 2-phenylethyl-N, N-dimethylamine** *JOURNAL OF CHEMICAL PHYSICS*
Fan, L., Lee, S., Tu, Y., Mignolet, B., Couch, D., Dorney, K., Quynh Nguyen, Wooldridge, L., Murnane, M., Remacle, F., Schlegel, H., Li, W.
2017; 147 (1): 013920
- **Photophysical properties of pyrrolocytosine, a cytosine fluorescent base analogue** *PHYSICAL CHEMISTRY CHEMICAL PHYSICS*
Nguyen, Q. L., Spata, V. A., Matsika, S.
2016; 18 (30): 20189-20198
- **Fluorescent properties of DNA/RNA base analog pyrrolocytosine**
Nguyen, Q., Matsika, S.
AMER CHEMICAL SOC.2014
- **Exciplexes and conical intersections lead to fluorescence quenching in pi-stacked dimers of 2-aminopurine with natural purine nucleobases** *PHOTOCHEMICAL & PHOTOBIOLOGICAL SCIENCES*
Liang, J., Nguyen, Q. L., Matsika, S.
2013; 12 (8): 1387-1400