



Liam Nagle Cocco

Postdoctoral Scholar, Photon Science, SLAC

Bio

PROFESSIONAL EDUCATION

- Master of Science, University Of London (2019)
- Doctor of Philosophy, University of Cambridge (2024)

STANFORD ADVISORS

- Piero Pianetta, Postdoctoral Faculty Sponsor

LINKS

- lnaglecocco.github.io: lnaglecocco.github.io

Publications

PUBLICATIONS

- **Collinear Jahn-Teller Ordering Induces Monoclinic Distortion in "Defect-Free" LiNiO_2** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Phillips, G. S., Steele, J. M. A., Sayed, F. N., Karger, L., Nagle-Cocco, L. A. V., Genreith-Schriever, A. R., Perez, G. E., Keen, D. A., Janek, J., Brezesinski, T., Bocarsly, J. D., Dutton, S. E., Grey, et al
2025
- **Ortho-rhom-bic cerium(III) carbonate hydroxide studied by synchrotron powder X-ray diffraction.** *Acta crystallographica. Section E, Crystallographic communications*
Nagle-Cocco, L. A., Bell, R. T., Strange, N. A.
2025; 81 (Pt 6): 530-533
- **Dome-like pressure-temperature phase diagram of the cooperative Jahn-Teller distortion in NaNiO_2** *JOURNAL OF PHYSICS-CONDENSED MATTER*
Nagle-Cocco, L. A., Steele, J. M. A., Deng, S., Zhang, X., Daisenberger, D., Genreith-Schriever, A. R., Saxena, S. S., Grey, C. P., Dutton, S. E.
2025; 37 (20)
- **Structural Elucidation of $\text{Na}_{2/3}\text{NiO}_2$, a Dynamically Stabilized Cathode Phase with Nickel Charge and Sodium Vacancy Ordering** *CHEMISTRY OF MATERIALS*
Steele, J. M. A., Genreith-Schriever, A. R., Bocarsly, J. D., Nagle-Cocco, L. A. V., Sayed, F. N., Juramy, M., O'Keefe, C. A., Orlandi, F., Manuel, P., Dutton, S. E., Grey, C. P.
2025
- **Displacive Jahn-Teller Transition in NaNiO_2** *JOURNAL OF THE AMERICAN CHEMICAL SOCIETY*
Nagle-Cocco, L. A. V., Genreith-Schriever, A. R., Steele, J. M. A., Tacconis, C., Bocarsly, J. D., Mathon, O., Neufeind, J. C., Liu, J., O'Keefe, C. A., Goodwin, A. L., Grey, C. P., Evans, J. S. O., Dutton, et al
2024: 29560-29574

- **Spin-Glass States Generated in a van der Waals Magnet by Alkali-Ion Intercalation.** *Advanced materials (Deerfield Beach, Fla.)*
Khan, S., Aw, E. S., Nagle-Cocco, L. A., Sud, A., Ghosh, S., Subhan, M. K., Xue, Z., Freeman, C., Sagkovits, D., Gutiérrez-Llorente, A., Verzhbitskiy, I., Arroo, D. M., Zollitsch, et al
2024: e2400270
- **Local Structure and Dynamics in MPt(CN)₆ Prussian Blue Analogues.** *Chemistry of materials : a publication of the American Chemical Society*
Harbourne, E. A., Barker, H., Guérault, Q., Cattermull, J., Nagle-Cocco, L. A., Roth, N., Evans, J. S., Keen, D. A., Goodwin, A. L.
2024; 36 (11): 5796-5804
- **Mechanochemically-induced glass formation from two-dimensional hybrid organic-inorganic perovskites.** *Chemical science*
Ye, C., Lampronti, G. I., McHugh, L. N., Castillo-Blas, C., Kono, A., Chen, C., Robertson, G. P., Nagle-Cocco, L. A., Xu, W., Stranks, S. D., Martinez, V., Brekalo, I., Karadeniz, et al
2024; 15 (19): 7198-7205
- **Jahn-Teller Distortions and Phase Transitions in LiNiO₂: Insights from Ab Initio Molecular Dynamics and Variable-Temperature X-ray Diffraction.** *Chemistry of materials : a publication of the American Chemical Society*
Genreith-Schriever, A. R., Alexiu, A., Phillips, G. S., Coates, C. S., Nagle-Cocco, L. A., Bocarsly, J. D., Sayed, F. N., Dutton, S. E., Grey, C. P.
2024; 36 (5): 2289-2303
- **Van Vleck analysis of angularly distorted octahedra using VanVleckCalculator.** *Journal of applied crystallography*
Nagle-Cocco, L. A., Dutton, S. E.
2024; 57 (Pt 1): 20-33
- **Magnetic and Magnetocaloric Properties of the A₂LnSbO₆ Lanthanide Oxides on the Frustrated fcc Lattice.** *Inorganic chemistry*
Koskelo, E. C., Kelly, N. D., Nagle-Cocco, L. A., Bocarsly, J. D., Mukherjee, P., Liu, C., Zhang, Q., Dutton, S. E.
2023; 62 (26): 10317-10328
- **Deciphering the *In Situ* Surface Reconstruction of Supercapacitive Bimetallic Ni-Co Oxyphosphide during Electrochemical Activation Using Multivariate Statistical Analyses** *ACS APPLIED ENERGY MATERIALS*
Saleh, A. A., Sayed, D. M., Nagle-Cocco, L. A. V., Divitini, G., Ghanem, L. G., Ducati, C., Allam, N. K.
2022; 5 (6): 7661-7673
- **Pressure Tuning the Jahn-Teller Transition Temperature in NaNiO₂.** *Inorganic chemistry*
Nagle-Cocco, L. A., Bull, C. L., Ridley, C. J., Dutton, S. E.
2022; 61 (10): 4312-4321