



Feng Pan

Postdoctoral Scholar, Materials Science and Engineering

Bio

BIO

Feng Pan is a postdoctoral scholar with Prof. Jennifer A. Dionne in the Department of Materials Science and Engineering at Stanford. He received his Ph.D. degree at the University of Wisconsin Madison, advised by Prof. Randall H. Goldsmith. His research expertise spans several aspects, including quantum optics, nanophotonics, metasurfaces, chiral metamaterials, plasmonics, and single-particle microscopy and spectroscopy. He is interested in harnessing photonics to address critical challenges in energy, quantum information science, and sustainability.

STANFORD ADVISORS

- Jennifer Dionne, Postdoctoral Faculty Sponsor

LINKS

- Website: <https://generalpan90.wixsite.com/mysite>

Publications

PUBLICATIONS

- **Metasurface-Enhanced Momentum-Resolved Circular Dichroism Spectroscopy.** *Nano letters*
Dado, R. S., Bordoloi, P., Xiong, Y., Liu, C. C., Brinkman, L. J., Moradifar, P., Pan, F., Tang, M. L., Brongersma, M., Dionne, J.
2026
- **Twisted Tin-Chloride Perovskite Single-Crystal Heterostructures.** *Angewandte Chemie (International ed. in English)*
Cleron, J. L., Chen, C. Y., Pan, F., Saha, S., Marlton, F. P., Stolz, R. M., Li, J., Dionne, J. A., Liu, F., Filip, M. R., Karunadasa, H. I.
2025: e20140
- **Room-temperature valley-selective emission in Si-MoSe₂ heterostructures enabled by high-quality-factor chiroptical cavities.** *Nature communications*
Pan, F., Li, X., Johnson, A. C., Dhuey, S., Saunders, A., Hu, M. X., Dixon, J. P., Dagli, S., Lau, S. C., Weng, T., Chen, C. Y., Zeng, J. H., Apte, et al
2025
- **Resonant metasurface-enabled quantum light sources for single-photon emission and entangled photon-pair generation.** *Nanophotonics (Berlin, Germany)*
Pan, F., Bordoloi, P., Chen, C. Y., Dionne, J. A.
2025; 14 (23): 3861-3870
- **Resonant metasurface-enabled quantum light sources for single-photon emission and entangled photon-pair generation** *NANOPHOTONICS*
Pan, F., Bordoloi, P., Chen, C., Dionne, J. A.
2025

- **Spectroscopy in Nanoscopic Cavities: Models and Recent Experiments.** *Annual review of physical chemistry*
Bourgeois, M. R., Pan, F., Anyanwu, C. P., Nixon, A. G., Beutler, E. K., Dionne, J. A., Goldsmith, R. H., Masiello, D. J.
2024; 75 (1): 509-534
- **Solution-phase sample-averaged single-particle spectroscopy of quantum emitters with femtosecond resolution.** *Nature materials*
Shi, J., Shen, Y., Pan, F., Sun, W., Mangu, A., Shi, C., McKeown-Green, A., Moradifar, P., Bawendi, M. G., Moerner, W. E., Dionne, J. A., Liu, F., Lindenberg, et al
2024
- **Millimeter-Scale Exfoliation of hBN with Tunable Flake Thickness for Scalable Encapsulation** *ACS APPLIED NANO MATERIALS*
McKeown-Green, A. S., Zeng, H. J., Saunders, A. P., Li, J., Shi, J., Shen, Y., Pan, F., Hu, J., Dionne, J. A., Heinz, T. F., Wu, S. M., Zheng, F., Liu, et al
2024
- **Through thick and thin: how optical cavities control spin.** *Nanophotonics (Berlin, Germany)*
Dixon, J., Pan, F., Moradifar, P., Bordoloi, P., Dagli, S., Dionne, J.
2023; 12 (14): 2779-2788
- **Active Control of Plasmonic-Photonic Interactions in a Microbubble Cavity** *JOURNAL OF PHYSICAL CHEMISTRY C*
Pan, F., Karlsson, K., Nixon, A. G., Hogan, L. T., Ward, J. M., Smith, K. C., Masiello, D. J., Chormaic, S., Goldsmith, R. H.
2022
- **Targeted synthesis of a large triazine-based [4+6] organic molecular cage: structure, porosity and gas separation** *CHEMICAL COMMUNICATIONS*
Ding, H., Yang, Y., Li, B., Pan, F., Zhu, G., Zeller, M., Yuan, D., Wang, C.
2015; 51 (10): 1976-1979