

Sa Cai

Ph.D. Student in Materials Science and Engineering, admitted Autumn 2021

Publications

PUBLICATIONS

- **Tartrazine clears live cells while preserving viability at high refractive indices and osmolality.** *bioRxiv : the preprint server for biology*
Hou, X., Cai, S., Cui, H., Liu, Z., Zhao, S., Zhang, L. Y., Baghdasaryan, A., Crunkleton, V., Brongersma, M. L., Hong, G.
2026
- **Color-neutral and reversible tissue transparency enables longitudinal deep-tissue imaging in live mice.** *Proceedings of the National Academy of Sciences of the United States of America*
Keck, C. H., Schmidt, E. L., Roth, R. H., Floyd, B. M., Tsai, A. P., Garcia, H. B., Cui, M., Chen, X., Wang, C., Park, A., Zhao, S., Liao, P. A., Casey, et al
2025; 122 (35): e2504264122
- **Programmable control of spatial transcriptome in live cells and neurons.** *Nature*
Han, M., Fu, M. L., Zhu, Y., Choi, A. A., Li, E., Bezney, J., Cai, S., Miles, L., Ma, Y., Qi, L. S.
2025
- **High-resolution dynamic imaging of chromatin DNA communication using Oligo-LiveFISH.** *Cell*
Zhu, Y., Balaji, A., Han, M., Andronov, L., Roy, A. R., Wei, Z., Chen, C., Miles, L., Cai, S., Gu, Z., Tse, A., Yu, B. C., Uenaka, et al
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- **Color-neutral and reversible tissue transparency enables longitudinal deep-tissue imaging in live mice.** *bioRxiv : the preprint server for biology*
Keck, C. H., Schmidt, E. L., Roth, R. H., Floyd, B. M., Tsai, A. P., Garcia, H. B., Cui, M., Chen, X., Wang, C., Park, A., Zhao, S., Liao, P. A., Casey, et al
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- **A frugal CRISPR kit for equitable and accessible education in gene editing and synthetic biology.** *Nature communications*
Collins, M., Lau, M. B., Ma, W., Shen, A., Wang, B., Cai, S., La Russa, M., Jewett, M. C., Qi, L. S.
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- **Bioinspired nanotransducers for neuromodulation** *NANO RESEARCH*
Yang, F., Wu, X., Cai, S., Hong, G.
2023
- **Nanotransducer-Enabled Deep-Brain Neuromodulation with NIR-II Light.** *ACS nano*
Wu, X., Yang, F., Cai, S., Pu, K., Hong, G.
2023
- **Systemically Delivered, Deep-Tissue Nanoscopic Light Sources** *PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER*
Wu, X., Yang, F., Cai, S., Hong, G.
2023; 177: 33-42
- **Palette of Rechargeable Mechanoluminescent Fluids Produced by a Biomineral-Inspired Suppressed Dissolution Approach.** *Journal of the American Chemical Society*
Yang, F., Wu, X., Cui, H., Jiang, S., Ou, Z., Cai, S., Hong, G.
2022
- **A biomineral-inspired approach of synthesizing colloidal persistent phosphors as a multicolor, intravital light source.** *Science advances*

Yang, F., Wu, X., Cui, H., Ou, Z., Jiang, S., Cai, S., Zhou, Q., Wong, B. G., Huang, H., Hong, G.
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- **Tether-free photothermal deep-brain stimulation in freely behaving mice via wide-field illumination in the near-infrared-II window.** *Nature biomedical engineering*

Wu, X., Jiang, Y., Rommelfanger, N. J., Yang, F., Zhou, Q., Yin, R., Liu, J., Cai, S., Ren, W., Shin, A., Ong, K. S., Pu, K., Hong, et al
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