



Sajjad AbdollahRamezani

Postdoctoral Scholar, Ophthalmology

Bio

BIO

Sajjad Abdollahramezani is a postdoctoral scholar in Professor Charles DeBoer's lab in the Department of Ophthalmology at Stanford University. His research focuses on developing next-generation bioanalytical tools and implantable medical devices that integrate advanced optics, imaging, and AI to make healthcare more sustainable, precise, and accessible.

HONORS AND AWARDS

- Stanford Bio-X Travel Award, Stanford University (2024)
- Recipient of Sigma Xi Best Ph.D. Thesis Award, Georgia Tech (2023)
- Selected for Rising Stars in Materials Science and Engineering, Carnegie Mellon University (2023)
- Recipient of ECE Graduate Research Assistant Excellence (Roger P. Webb) Award, Georgia Tech (2022)
- Recipient of IEEE Photonics Society Graduate Student Scholarship, IEEE Society (2022)
- Recipient of SPIE Optics and Photonics Education Scholarship, SPIE Organization (2021)
- Recipient of Georgia Tech ECE Graduate Fellowship, Georgia Tech (2016)

STANFORD ADVISORS

- Charles DeBoer, Postdoctoral Faculty Sponsor

Publications

PUBLICATIONS

- **GHz-Speed Wavefront Shaping Metasurface Modulators Enabled by Resonant Electro-Optic Nanoantennas.** *Advanced materials (Deerfield Beach, Fla.)*
Dagli, S., Shim, J., Carr Delgado, H., Balch, H. B., Abdollahramezani, S., Chen, C. Y., Dolia, V., Klopfer, E., Dixon, J., Hu, J., Ogunlade, B., Song, J. H., Brongersma, et al
2025: e06790
- **Ion-Assisted Nanoscale Material Engineering in Atomic Layers.** *Nano letters*
Taghinejad, H., Taghinejad, M., Abdollahramezani, S., Li, Q., Woods, E. V., Tian, M., Eftekhari, A. A., Lyu, Y., Zhang, X., Ajayan, P. M., Cai, W., Brongersma, M. L., Analytis, et al
2025
- **High-throughput antibody screening with high-quality factor nanophotonics and bioprinting.** *ArXiv*
Abdollahramezani, S., Omo-Lamai, D., Bosman, G., Hemmatyar, O., Dagli, S., Dolia, V., Chang, K., Guskens, N. A., Delgado, H. C., Boons, G. J., Brongersma, M. L., Safir, F., Khuri-Yakub, et al
2024

- **Very-large-scale integrated high quality factor nanoantenna pixels.** *Nature nanotechnology*
Dolia, V., Balch, H. B., Dagli, S., Abdollahramezani, S., Carr Delgado, H., Moradifar, P., Chang, K., Stiber, A., Safir, F., Lawrence, M., Hu, J., Dionne, J. A.
2024
- **Electrically driven reprogrammable phase-change metasurface reaching 80% efficiency.** *Nature communications*
Abdollahramezani, S., Hemmatyar, O., Taghinejad, M., Taghinejad, H., Krasnok, A., Eftekhari, A. A., Teichrib, C., Deshmukh, S., El-Sayed, M. A., Pop, E., Wuttig, M., Alo, A., Cai, et al
2022; 13 (1): 1696
- **Dynamic Hybrid Metasurfaces.** *Nano letters*
Abdollahramezani, S. n., Hemmatyar, O. n., Taghinejad, M. n., Taghinejad, H. n., Kiarashinejad, Y. n., Zandehshahvar, M. n., Fan, T. n., Deshmukh, S. n., Eftekhari, A. A., Cai, W. n., Pop, E. n., El-Sayed, M. A., Adibi, et al
2021