

Stanford



Koosha Nassiri Nazif

Postdoctoral Scholar, Electrical Engineering

 Curriculum Vitae available Online

Bio

BIO

Dr. Koosha Nassiri Nazif received his Ph.D. in Electrical Engineering (Jan 2022) and his M.S. in Mechanical Engineering (2016) from Stanford University. Along the way, he worked at Apple (2019) on OLED/LCD displays and at HP Labs (2017) on 3D electronics thermal management. He is currently a post-doctoral scholar at Stanford developing novel flexible optoelectronic devices, including solar cells and wearable sensors, based on 2D transition metal dichalcogenides.

HONORS AND AWARDS

- VPGE Graduate Scholar Award, Stanford University (2018)
- Teaching Fellowship Award, Electrical Engineering Department, Stanford University (2018)
- Stanford Graduate Engineering Fellowship Award, Stanford University (2014)
- Professor Joel H. Ferziger Memorial Fellowship Award, Stanford University (2014)

PROFESSIONAL EDUCATION

- Doctor of Philosophy, Stanford University , EE-PHD (2022)
- Master of Science, Stanford University , ME-MS (2016)
- B.Sc., Sharif University of Technology , Mechanical Engineering (2014)

STANFORD ADVISORS

- Eric Pop, Postdoctoral Faculty Sponsor

LINKS

- LinkedIn: <https://www.linkedin.com/in/koosha-nassiri-nazif/>
- Pop Lab: <http://poplab.stanford.edu>
- Google Scholar: <https://scholar.google.com/citations?user=iTa5a1gAAAAJ&hl=en>

Research & Scholarship

LAB AFFILIATIONS

- Eric Pop, Pop Lab (1/1/2022)
- Krishna Saraswat, Saraswat Group (4/1/2016 - - 7/12/2021)
- Shanhui Fan, Fan Group (6/15/2015 - - 9/20/2015)

Publications

PUBLICATIONS

- **High-Efficiency WSe₂ Photovoltaic Devices with Electron-Selective Contacts.** *ACS nano*
Kim, K., Andreev, M., Choi, S., Shim, J., Ahn, H., Lynch, J., Lee, T., Lee, J., Nazif, K. N., Kumar, A., Kumar, P., Choo, H., Jariwala, et al
2022
- **High-specific-power flexible transition metal dichalcogenide solar cells.** *Nature communications*
Nassiri Nazif, K., Daus, A., Hong, J., Lee, N., Vaziri, S., Kumar, A., Nitta, F., Chen, M. E., Kananian, S., Islam, R., Kim, K., Park, J., Poon, et al
2021; 12 (1): 7034
- **High-Performance p-n Junction Transition Metal Dichalcogenide Photovoltaic Cells Enabled by MoO_x Doping and Passivation.** *Nano letters*
Nassiri Nazif, K., Kumar, A., Hong, J., Lee, N., Islam, R., McClellan, C. J., Karni, O., van de Groep, J., Heinz, T. F., Pop, E., Brongersma, M. L., Saraswat, K. C.
2021
- **Free-standing 2.7 μm thick ultrathin crystalline silicon solar cell with efficiency above 12.0%** *NANO ENERGY*
Xue, M., Nazif, K., Lyu, Z., Jiang, J., Lu, C., Lee, N., Zang, K., Chen, Y., Zheng, T., Kamins, T., Brongersma, M. L., Saraswat, K. C., Harris, et al
2020; 70
- **Doped WS₂ transistors with large on-off ratio and high on-current**
Kumar, A., Nazif, K., Ramesh, P., Saraswat, K., IEEE
IEEE.2020
- **Towards high V_{oc}, thin film, homojunction WS₂ solar cells for energy harvesting applications**
Nazif, K., Kumar, A., de Menezes, M., Saraswat, K., Matin, M., Lange, A. P., Dutta, A. K.
SPIE-INT SOC OPTICAL ENGINEERING.2019
- **Proposing a high-efficiency dielectrophoretic system for separation of dead and live cells** *SCIENTIA IRANICA*
Shayestehpour, H., Nazif, K., Soufi, A. M., Saidi, M. S.
2018; 25 (1): 186-195
- **Thermal Co-Design of Exascale Computing System in Packages (SiPs)**
Nazif, K., Kumari, N., Silverthorn, S., IEEE
IEEE.2018: 345-353
- **Si Heterojunction Solar Cells: A Simulation Study of the Design Issues** *IEEE Transactions on Electron Devices*
Islam, R., Nazif, K. N., Saraswat, K. C.
2016; 63 (12): 4788 - 4795
- **Optimization of Selective Contacts in Si Heterojunction Photovoltaic Cells Considering Fermi Level Pinning and Interface Passivation**
Islam, R., Nazif, K., Saraswat, K., IEEE
IEEE.2016: 2440-2443